

1 **Necessary Information for the WIPP Facility Ten Year Renewal Application, Part B**

2 The New Mexico Hazardous Waste Act requires general and specific information when either applying
3 or reapplying for a hazardous waste permit. General and specific information requirements are
4 addressed in the order they appear in the federal regulations as adopted by the New Mexico Hazardous
5 Waste Management regulations and are identified by the number of the federal hazardous waste
6 management citation.

7 **§270.14 Contents of part B: General requirements**

8 (a) Part B of the permit application consists of the general information requirements of this section and
9 the specific information requirements in §§270.14 through 270.29 applicable to the facility. The part B
10 information requirements presented in §§270.14 through 270.29 reflect the standards promulgated in
11 40 CFR part 264. These information requirements are necessary in order for NMED to determine
12 compliance with the part 264 standards. If owners and operators of HWM facilities can demonstrate
13 that the information prescribed in part B cannot be provided to extent required, the Secretary of the
14 NMED may make allowance for submission of such information on a case-by-case basis. Information
15 required in Part B shall be submitted to the Secretary and signed in accordance with the requirements
16 of §270.11. Certain technical data, such as, design drawings and specifications, and engineering studies
17 shall be certified by a qualified Professional Engineer. For post-closure permits, only the information
18 specified in §270.28 is required in part B of the permit application.

19 The Permittees have determined that none of the information submitted in this Renewal
20 Application requires a certification beyond that required by §270.11.

21 (b) *General information requirements.* The following information is required for all HWM facilities,
22 except as §264.1 provides otherwise:

23 (1) A general description of the facility.

24 There is no proposed change to the description of the facility in the *Waste Isolation*
25 *Pilot Plant Hazardous Waste Facility Permit*, Permit # NM489019088-TSDF, as
26 modified in accordance with NMAC 20.4.1.901 incorporating §40 CFR 270.42. The
27 Renewal Application requests authorization for disposal of transuranic (TRU) mixed
28 waste in Panel 8. Currently, only the construction and certification of Panel 8 is
29 allowed by the Waste Isolation Pilot Plant (WIPP) Permit. See Renewal Application
30 Appendices M2 and M3 for a specific description of the construction of the disposal
31 panels (hazardous waste disposal units (HWDUs)). See Renewal Application Chapter
32 A, Appendices M1, M2, and M3 for a description of the facility.

33 In this Renewal Application, the U.S. Department of Energy (DOE) is seeking
34 authorization to continue the disposal of TRU mixed waste at the WIPP facility. Waste
35 disposal has occurred in the underground portion of the WIPP facility in areas

1 designated as Panels 1 through 5. Currently, TRU mixed waste disposal is permitted in
2 Panels 1 through 7 and construction of Panel 8 is also permitted. Each panel consists of
3 seven rooms and two access drifts mined in a salt bed 2,150 ft (655 m) below the
4 surface. The legal description of the facility is:

- 5 • Township 22 South, Range 31 East;
- 6 ○ Sections 15 to 22
- 7 ○ Sections 27 to 34

8 During the term of this and the preceding Permit, the volume of contact-handled (**CH**)
9 TRU mixed waste emplaced in the repository will not exceed 4,920,746 ft³ (139,340
10 m³) and the volume of remote-handled (**RH**) TRU mixed waste shall not exceed 93,050
11 ft³ (2,635 m³). CH TRU mixed waste will be disposed of in Underground HWDUs
12 identified as Panels 5 through 8 and in any currently active panel. The RH TRU mixed
13 waste may be disposed of in Panels 4 through 8.

14 Descriptions of the containers to be used and associated operations during the Disposal
15 Phase are presented in Renewal Application Appendix M1, *Container Storage*. The
16 TRU mixed waste that will be disposed at the WIPP facility results primarily from
17 activities related to the reprocessing of plutonium-bearing reactor fuel and fabrication of
18 plutonium-bearing weapons, as well as from research and development. This TRU
19 mixed waste consists largely of such items as paper, cloth, and other organic material;
20 laboratory glassware and utensils; tools; scrap metal; shielding; and solidified sludges
21 from the treatment of wastewater. Much of this TRU mixed waste is also contaminated
22 with substances that are defined as hazardous under 20.4.1.200 NMAC.

23 (2) Chemical and physical analyses of the hazardous waste and hazardous debris to be handled
24 at the facility. At a minimum, these analyses shall contain all the information which must be
25 known to treat, store, or dispose of the wastes properly in accordance with part 264 of this
26 chapter.

27 The Permittees are proposing no changes to the Waste Analysis Plan (**WAP**). The
28 Permittees are not proposing a change to the list of hazardous waste numbers for
29 disposal at the WIPP facility. The Permittees are not proposing to change the methods
30 used to conduct chemical and physical analysis of the waste. The Permittees are not
31 proposing to change the chemical or physical characteristics of waste expected for
32 disposal at the WIPP facility.

33 Please see Renewal Application Waste Analysis Plan (Chapter B, Appendices B1
34 through B7, and Addendum B1) for complete information on the chemical and physical
35 analysis of hazardous waste.

1 The Permittees will continue to ensure that there are no incompatible wastes by
2 ensuring that only waste with acceptable hazardous waste numbers (**HWNs**) are
3 shipped to the WIPP facility and that there are no prohibited items as specified in the
4 Treatment, Storage, Disposal Facility-Waste Acceptance Criteria (**TSDF-WAC**), such
5 as liquids in excess of TSDF-WAC limits; compressed gases; or ignitable, corrosive, or
6 reactive waste. Identification of the chemical and physical properties of the waste will
7 be done by use of Acceptable Knowledge, representative chemical sampling, visual
8 examination, and/or radiography. The Permittees will continue to review Waste Stream
9 Profile Forms to ensure that the waste contains no ignitable, corrosive, or reactive
10 waste; and that only allowed U.S. Environmental Protection Agency (**EPA**) hazardous
11 waste numbers are accepted for storage and disposal at the WIPP. The Permittees will
12 continue to monitor airborne volatile organic compounds underground to demonstrate
13 compliance with the environmental performance standards.

14 (3) A copy of the waste analysis plan required by §264.13(b) and, if applicable §264.13(c).

15 The Permittees are providing a copy of their waste analysis plan as required by §264.13
16 in Renewal Application Chapter B, and Appendices B1 through B7. Also included with
17 the Waste Analysis Plan is Addendum B1, *Dispute Resolution*.

18 (4) A description of the security procedures and equipment required by §264.14, or a
19 justification demonstrating the reasons for requesting a waiver of this requirement.

20 The Permittees propose no modifications to security procedures and equipment as
21 detailed in the Renewal Application Chapter C, *Security*; and Chapter D, *Inspection*
22 *Schedule, Process and Forms, Table D-1, Inspection Schedule/Procedures*.

23 (5) A copy of the general inspection schedule required by §264.15(b) of this part. Include
24 where applicable, as part of the inspection schedule, specific requirements in §§264.174,
25 264.193(i), 264.195, 264.226, 264.254, 264.273, 264.303, 264.602, 264.1033, 264.1052,
26 264.1053, 264.1058, 264.1084, 264.1085, 264.1086, and 264.1088 of this part.

27 The Permittees propose no change in the general inspection schedule. The Permittees
28 inspect the WIPP facility for malfunctions and deterioration, operator errors, and
29 discharges which may cause or lead to a release of hazardous waste constituents to the
30 environment or threaten human health in accordance with 40 CFR §264.602,
31 §264.15(b), and the weekly inspection requirements of §264.174. The general
32 inspection schedule is identified in Renewal Application Chapter D, *Inspection*
33 *Schedule, Process and Forms, Renewal Application Table D-1, Inspection*
34 *Schedule/Procedures; Renewal Application Table D-1A, RH TRU Mixed Waste*
35 *Inspection Schedule/Procedures; Renewal Application Table D-2, Monitoring*
36 *Schedule*.

1 The Permittees do not manage hazardous waste in tanks, surface impoundments, waste
2 piles, by land treatment, or in landfills, have no process vents, have no equipment that
3 contains or contacts hazardous waste, and are exempt from Subpart CC standards for
4 containers, therefore the requirements of §§264.193(i), 264.195, 264.226, 264.254,
5 264.273, 264.1033, 264.1052, 264.1053, 264.1058, 264.1084, 264.1085, 264.1086,
6 264.1088 are not applicable.

7 (6) A justification of any request for a waiver(s) of the preparedness and prevention
8 requirements of part 264, subpart C.

9 No waivers of the preparedness and prevention requirements of part 264, Subpart C are
10 being sought by the Permittees.

11 (7) A copy of the contingency plan required by part 264, subpart D. Note: Include, where
12 applicable, as part of the contingency plan, specific requirements in §§264.227, 264.255, and
13 264.200.

14 A copy of Renewal Application Chapter F, *RCRA Contingency Plan*, is included. The
15 WIPP facility does not manage hazardous waste in surface impoundments, therefore the
16 requirements of §264.227 are not applicable. The WIPP facility does not manage waste
17 in waste piles, therefore, the requirements of §264.255 are not applicable. The WIPP
18 facility does not manage waste in tanks, therefore the requirements of §264.200 are not
19 applicable.

20 (8) A description of procedures, structures, or equipment used at the facility to:

21 (i) Prevent hazards in unloading operations (for example, ramps, special forklifts);

22 The Permittees propose no change in the manner in which they prevent hazards in
23 unloading operations as detailed in Renewal Application Chapter E, *Preparedness and*
24 *Prevention, Section E-2a, Unloading Operations; Renewal Appendix M1, Container*
25 *Storage; and Renewal Application Appendix M2, Geologic Repository.*

26 (ii) Prevent runoff from hazardous waste handling areas to other areas of the facility or
27 environment, or to prevent flooding (for example, berms, dikes, trenches);

28 The Permittees propose no change in the manner in which they prevent runoff from
29 hazardous waste handling areas to other areas of the facility or environment or to
30 prevent flooding as described in Renewal Application Chapter E, *Preparedness and*
31 *Prevention, Section E-2b, Runoff.*

1 (iii) Prevent contamination of water supplies;

2 The Permittees propose no change in the manner in which they prevent contamination
3 of water supplies as detailed in Renewal Application Chapter E, *Preparedness and*
4 *Prevention, Section E-2c, Water Supplies.*

5 (iv) Mitigate effects of equipment failure and power outages;

6 The Permittees propose no change in the manner in which they mitigate effects of
7 equipment failure and power outages as detailed in Renewal Application Chapter E,
8 *Preparedness and Prevention, Section E-2d, Equipment and Power Failure.*

9 (v) Prevent undue exposure of personnel to hazardous waste (for example, protective clothing);

10 The Permittees propose no change in the manner in which they prevent undue exposure
11 of personnel to hazardous waste as detailed in Renewal Application Chapter E,
12 *Preparedness and Prevention, Section E-2e, Personnel Protection.*

13 (vi) Prevent releases to atmosphere.

14 The Permittees propose no change in the manner in which they prevent releases to the
15 atmosphere as detailed in Renewal Application Chapter E, *Preparedness and*
16 *Prevention, Section E-2f, Releases to the Atmosphere.*

17 (9) A description of precautions to prevent accidental ignition or reaction of ignitable, reactive,
18 or incompatible wastes as required to demonstrate compliance with §264.17 including
19 documentation demonstrating compliance with §264.17(c).

20 The Permittees propose no change in the manner in which they take precautions to
21 prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes as
22 required to demonstrate compliance with §264.17 including documentation
23 demonstrating compliance with §264.17(c) as detailed in Renewal Application
24 Chapter E, *Preparedness and Prevention, Section E-2g, Flammable Gas Concentration*
25 *Control, and Section E-2f, Prevention of Reaction of Ignitable, Reactive, and*
26 *Incompatible Waste.*

27 (10) Traffic pattern, estimated volume (number, types of vehicles) and control (for example,
28 show turns across traffic lanes, and stacking lanes (if appropriate); describe access road
29 surfacing and load bearing capacity; show traffic control signals).

30 The Permittees propose no change in traffic patterns and no change is proposed in
31 access road surfacing and load bearing capacity or traffic control signals as detailed in
32 Renewal Application Chapter G, *Traffic Pattern.*

1 (11) Facility location information;

2 (i) In order to determine the applicability of the seismic standard [§264.18(a)] the owner or of a
3 new facility must identify the political jurisdiction (e.g., county, township, or election district)
4 in which the facility is proposed to be located.

5 [*Comment:* If the county or election district is not listed in appendix VI of part 264, no further information is
6 required to demonstrate compliance with §264.18(a).]

7 There is no change in the applicability of the seismic standard. The WIPP facility is
8 located in Eddy County, New Mexico. Eddy County is not listed in Part 264,
9 Appendix VI; therefore, no further information is required to demonstrate compliance
10 with § 264.18(a).

11 (ii) If the facility is proposed to be located in an area listed in appendix VI of part 264, the
12 owner or operator shall demonstrate compliance with the seismic standard. This demonstration
13 may be made using either published geologic data or data obtained from field investigations
14 carried out by the applicant. The information provided must be of such quality to be acceptable
15 to geologists experienced in identifying and evaluating seismic activity. The information
16 submitted must show that either:

17 (A) No faults which have had displacement in Holocene time are present, or no lineations
18 which suggest the presence of a fault (which have displacement in Holocene time) within 3,000
19 feet of a facility are present, based on data from:

20 (1) Published geologic studies,

21 (2) Aerial reconnaissance of the area within a five-mile radius from the facility.

22 (3) An analysis of aerial photographs covering a 3,000 foot radius of the facility, and

23 (4) If needed to clarify the above data, a reconnaissance based on walking portions of
24 the area within 3,000 feet of the facility, or

25 The WIPP facility is located in Eddy County, New Mexico. Eddy County is not listed
26 in Part 264, Appendix VI; therefore, no further information is required to demonstrate
27 compliance with § 264.18(a).

28 (B) If faults (to include lineations) which have had displacement in Holocene time are present
29 within 3,000 feet of a facility, no faults pass within 200 feet of the portions of the facility where
30 treatment, storage, or disposal of hazardous waste will be conducted, based on data from a
31 comprehensive geologic analysis of the site. Unless a site analysis is otherwise conclusive
32 concerning the absence of faults within 200 feet of such portions of the facility data shall be
33 obtained from a subsurface exploration (trenching) of the area within a distance no less than

1 200 feet from portions of the facility where treatment, storage, or disposal of hazardous waste
2 will be conducted. Such trenching shall be performed in a direction that is perpendicular to
3 known faults (which have had displacement in Holocene time) passing within 3,000 feet of the
4 portions of the facility where treatment, storage, or disposal of hazardous waste will be
5 conducted. Such investigation shall document with supporting maps and other analyses, the
6 location of faults found.

7 [*Comment:* The Guidance Manual for the Location Standards provides greater detail on the content of each type of
8 seismic investigation and the appropriate conditions under which each approach or a combination of approaches
9 would be used.]

10 The WIPP facility is located in Eddy County, New Mexico. Eddy County is not listed
11 in Part 264, Appendix VI; therefore, no further information is required to demonstrate
12 compliance with § 264.18(a).

13 (iii) Owners and operators of all facilities shall provide an identification of whether the facility
14 is located within a 100-year floodplain. This identification must indicate the source of data for
15 such determination and include a copy of the relevant Federal Insurance Administration (FIA)
16 flood map, if used, or the calculations and maps used where an FIA map is not available.
17 Information shall also be provided identifying the 100-year flood level and any other special
18 flooding factors (e.g., wave action) which must be considered in designing, constructing,
19 operating, or maintaining the facility to withstand washout from a 100-year flood.

20 [*Comment:* Where maps for the National Flood Insurance Program produced by the Federal Insurance
21 Administration (FIA) of the Federal Emergency Management Agency are available, they will normally be
22 determinative of whether a facility is located within or outside of the 100-year floodplain. However, where the FIA
23 map excludes an area (usually areas of the floodplain less than 200 feet in width), these areas must be considered
24 and a determination made as to whether they are in the 100-year floodplain. Where FIA maps are not available for
25 a proposed facility location, the owner or operator must use equivalent mapping techniques to determine whether
26 the facility is within the 100-year floodplain, and if so located, what the 100-year flood elevation would be.]

27 The WIPP facility does not lie within a 100-year floodplain as defined in 20.4.1.500
28 NMAC, [incorporating 40 CFR 264.18(b)(2)(i)] and as regulated under 20.4.1.500
29 NMAC, [incorporating 40 CFR 264.18(b)(1)].

30 The Federal Emergency Management Agency (**FEMA**) has not issued flood maps for
31 the WIPP site. The WIPP site lies in FEMA Panel 350120 0675 B. In a search of this
32 Panel for flood maps, this Panel shows up under the heading “Non-printed panels”
33 indicating it is a geographic area for which FEMA has not identified a flooding risk.
34 The closest panel for which FEMA has evaluated flood risk is south of State Highway
35 128. Portions of this area have been designated as Zone X which FEMA defines as
36 follows: “Zones B, C, and X -- Areas outside the 1-percent annual chance floodplain,
37 areas of 1% annual chance sheet flow flooding where average depths are less than 1
38 foot, areas of 1% annual chance stream flooding where the contributing drainage area is
39 less than 1 square mile, or areas protected from the 1% annual chance flood by levees.

Black Text = Regulatory Citation

Blue Text = Permittees' Response

1 No Base Flood Elevations or depths are shown within this zone. Insurance purchase is
2 not required in these zones.”

3 The Permittees characterization of the flooding potential is in Addendum L1, which
4 references the DOE Final Environmental Impact Statement, Section 7.4.1. The DOE
5 used data from the United States Geological Survey, which reported the maximum
6 flood stage for an August 23, 1966, event at monitoring station # 08406500 at Malaga,
7 New Mexico. This elevation was subtracted from the minimum elevation at the WIPP
8 site to determine that there is no flooding potential from the Pecos River. The DOE
9 used a regional topographic map to identify the closest approach of the Pecos River and
10 the minimum elevation of the WIPP site. A similar topographic map is shown in
11 Renewal Application Addendum L1, Figure L1-25. The Permittees used the general
12 ground elevation in the vicinity of the surface facilities to calculate the height above the
13 100-year floodplain to be over 400 feet. The Permittees have modified Renewal
14 Application Addendum Figure L1-25 to indicate the location of the USGS reporting
15 station on the Pecos River that is closest to the WIPP facility and that is used to
16 determine the height above the maximum reported historical flood.

17
18 To estimate the potential for overland flow and sheet flooding, the Permittees included
19 Appendix D7 in the original Part B Permit Application as the calculation of the
20 Probable Maximum Precipitation (PMP) event and used the information in the design of
21 berms, dikes and ditches. This information has not changed, so the Permittees have not
22 resubmitted or updated the PMP calculations in the Renewal Application.

23 (iv) Owners and operators of facilities located in the 100-year floodplain must provide
24 the following information:

25 (A) Engineering analysis to indicate the various hydrodynamic and hydrostatic forces
26 expected to result at the site as consequence of a 100-year flood.

27 (B) Structural or other engineering studies showing the design of operational units (e.g.,
28 tanks, incinerators) and flood protection devices (e.g., floodwalls, dikes) at the facility
29 and how these will prevent washout.

30 (C) If applicable, and in lieu of paragraphs (b)(11)(iv) (A) and (B) of this section, a
31 detailed description of procedures to be followed to remove hazardous waste to safety
32 before the facility is flooded, including:

33 (I) Timing of such movement relative to flood levels, including estimated time
34 to move the waste, to show that such movement can be completed before
35 floodwaters reach the facility.

1 (2) A description of the location(s) to which the waste will be moved and
2 demonstration that those facilities will be eligible to receive hazardous waste in
3 accordance with the regulations under parts 270, 271, 124, and 264 through 266
4 of this chapter.

5 (3) The planned procedures, equipment, and personnel to be used and the means
6 to ensure that such resources will be available in time for use.

7 (4) The potential for accidental discharges of the waste during movement.

8 The WIPP facility does not lie within a 100-year floodplain as defined in 20.4.1.500
9 NMAC, [incorporating 40 CFR 264.18(b)(2)(i)] and as regulated under 20.4.1.500
10 NMAC, [incorporating 40 CFR 264.18(b)(1)].

11 The FEMA has not issued flood maps for the WIPP site. The WIPP site lies in FEMA
12 Panel 350120 0675 B. In a search of this Panel for flood maps, this Panel shows up
13 under the heading “Non-printed panels” indicating it is a geographic area for which
14 FEMA has not identified a flooding risk. The closest panel for which FEMA has
15 evaluated flood risk is south of State Highway 128. Portions of this area have been
16 designated as Zone X which FEMA defines as follows: “Zones B, C, and X -- Areas
17 outside the 1-percent annual chance floodplain, areas of 1% annual chance sheet flow
18 flooding where average depths are less than 1 foot, areas of 1% annual chance stream
19 flooding where the contributing drainage area is less than 1 square mile, or areas
20 protected from the 1% annual chance flood by levees. No Base Flood Elevations or
21 depths are shown within this zone. Insurance purchase is not required in these zones.”

22 The Permittees characterization of the flooding potential is in Addendum L1, which
23 references the DOE Final Environmental Impact Statement, Section 7.4.1. The DOE
24 used data from the United States Geological Survey, which reported the maximum
25 flood stage for an August 23, 1966, event at monitoring station # 08406500 at Malaga,
26 New Mexico. This elevation was subtracted from the minimum elevation at the WIPP
27 site to determine that there is no flooding potential from the Pecos River. The DOE
28 used a regional topographic map to identify the closest approach of the Pecos River and
29 the minimum elevation of the WIPP site. A similar topographic map is shown in
30 Renewal Application Addendum L1, Figure L1-25. The Permittees used the general
31 ground elevation in the vicinity of the surface facilities to calculate the height above the
32 100-year floodplain to be over 400 feet. The Permittees have modified Renewal
33 Application Addendum Figure L1-25 to indicate the location of the USGS reporting
34 station on the Pecos River that is closest to the WIPP facility and that is used to
35 determine the height above the maximum reported historical flood.

36
37 To estimate the potential for overland flow and sheet flooding, the Permittees included
38 Appendix D7 in the original Part B Permit Application as the calculation of the

1 Probable Maximum Precipitation (PMP) event and used the information in the design of
2 berms, dikes and ditches. This information has not changed, so the Permittees have not
3 resubmitted or updated the PMP calculations in the Renewal Application.

4 (v) Existing facilities NOT in compliance with §264.18(b) shall provide a plan showing
5 how the facility will be brought into compliance and a schedule for compliance.

6 (12) An outline of both the introductory and continuing training programs by owners or
7 operators to prepare persons to operate or maintain the HWM facility in a safe manner as
8 required to demonstrate compliance with §264.16. A brief description of how training will be
9 designed to meet actual job tasks in accordance with requirements in §264.16(a)(3).

10 The Permittees propose no changes to the training program as detailed in Renewal
11 Application Appendix H1, *RCRA Hazardous Waste Management Job Titles and*
12 *Descriptions*, and Renewal Application Appendix H2, *Training Course and*
13 *Qualification/Certification Card Outlines*.

14 (13) A copy of the closure plan and, where applicable, the post-closure plan required by
15 §§264.112, 264.118, and 264.197. Include, where applicable, as part of the plans, specific
16 requirements in §§264.178, 264.197, 264.228, 264.258, 264.280, 264.310, 264.351, 264.601,
17 and 264.603.

18 A copy of the closure plan, Renewal Application Chapter I, and Appendix I1 through
19 I3, and the post closure plan, Renewal Application Chapter J and Appendix J1 are
20 included as part of the Renewal Application.

21 (14) For hazardous waste disposal units that have been closed, documentation that notices
22 required under §264.119 have been filed.

23 At the time of submittal of this Renewal Application, no HWDUs have been closed and
24 no notices required under §264.119 have been filed.

25 (15) The most recent closure cost estimate for the facility prepared in accordance with
26 §264.142 and a copy of the documentation required to demonstrate financial assurance under
27 §264.143. For a new facility, a copy of the required documentation may be submitted 60 days
28 prior to the initial receipt of hazardous wastes, if that is later than the submission of the part B.

29 Pursuant to 40 CFR 264.140(c), the Federal government is exempt from §264
30 Subpart H, *Financial Requirements*. Additionally, and in accordance with the Military
31 Construction Appropriations Act, 2001, Pub. L. No.106-246, 114 Stat. 511 (2000),
32 Washington TRU Solutions LLC (the co-operator) is not required to post bond or fulfill
33 any other financial responsibility requirement relating to closure or post-closure care
34 and monitoring of the WIPP facility. Therefore, this provision is not applicable.

1 (16) Where applicable, the most recent post-closure cost estimate for the facility prepared in
2 accordance with §264.144 plus a copy of the documentation required to demonstrate financial
3 assurance under §264.145. For a new facility, a copy of the required documentation may be
4 submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the
5 submission of the part B.

6 Pursuant to 40 CFR 264.140(c), the Federal government is exempt from §264
7 Subpart H, *Financial Requirements*. Additionally, and in accordance with the Military
8 Construction Appropriations Act, 2001, Pub. L. No.106-246, 114 Stat. 511 (2000),
9 Washington TRU Solutions LLC (the co-operator) is not required to post bond or fulfill
10 any other financial responsibility requirement relating to closure or post-closure care
11 and monitoring of the WIPP facility. Therefore, this provision is not applicable.

12 (17) Where applicable, a copy of the insurance policy or other documentation which comprises
13 compliance with the requirements of §264.147. For a new facility, documentation showing the
14 amount of insurance meeting the specification of §264.147(a) and, if applicable, §264.147(b),
15 that the owner or operator plans to have in effect before initial receipt of hazardous waste for
16 treatment, storage, or disposal. A request for a variance in the amount of required coverage, for
17 a new or existing facility, may be submitted as specified in §264.147(c).

18 Pursuant to 40 CFR 264.140(c), the Federal government is exempt from §264
19 Subpart H, *Financial Requirements*. Additionally, and in accordance with the Military
20 Construction Appropriations Act, 2001, Pub. L. No.106-246, 114 Stat. 511 (2000),
21 Washington TRU Solutions LLC (the co-operator) is not required to post bond or fulfill
22 any other financial responsibility requirement relating to closure or post-closure care
23 and monitoring of the WIPP facility. Therefore, this provision is not applicable.

24 (18) Where appropriate, proof of coverage by a State financial mechanism in compliance with
25 §264.149 or §264.150.

26 Pursuant to 40 CFR 264.140(c), the Federal government is exempt from §264
27 Subpart H, *Financial Requirements*. Additionally, and in accordance with the Military
28 Construction Appropriations Act, 2001, Pub. L. No.106-246, 114 Stat. 511 (2000),
29 Washington TRU Solutions LLC (the co-operator) is not required to post bond or fulfill
30 any other financial responsibility requirement relating to closure or post-closure care
31 and monitoring of the WIPP facility. Therefore, this provision is not applicable.

32 (19) A topographic map showing a distance of 1,000 feet around the facility at a scale of 2.5
33 centimeters (1 inch) equal to not more than 61.0 meters (200 feet). Contours must be shown on
34 the map. The contour interval must be sufficient to clearly show the pattern of surface water
35 flow in the vicinity of and from each operational unit of the facility. For example, contours with
36 an interval of 1.5 meters (5 feet), if relief is greater than 6.1 meters (20 feet), or an interval of
37 0.6 meters (2 feet), if relief is less than 6.1 meters (20 feet). Owners and operators of HWM

1 facilities located in mountainous areas should use large contour intervals to adequately show
2 topographic profiles of facilities. The map shall clearly show the following:

3 (i) Map scale and date.

4 Map scale and map date and contour intervals (as appropriate) are identified on
5 individual maps.

6 (ii) 100-year floodplain area.

7 The WIPP facility does not lie within a 100-year floodplain as defined in 20.4.1.500
8 NMAC, [incorporating 40 CFR 264.18(b)(2)(i)] and as regulated under 20.4.1.500
9 NMAC, [incorporating 40 CFR 264.18(b)(1)].

10 The FEMA has not issued flood maps for the WIPP site. The WIPP site lies in FEMA
11 Panel 350120 0675 B. In a search of this Panel for flood maps, this Panel shows up
12 under the heading “Non-printed panels” indicating it is a geographic area for which
13 FEMA has not identified a flooding risk. The closest panel for which FEMA has
14 evaluated flood risk is south of State Highway 128. Portions of this area have been
15 designated as Zone X which FEMA defines as follows: “Zones B, C, and X -- Areas
16 outside the 1-percent annual chance floodplain, areas of 1% annual chance sheet flow
17 flooding where average depths are less than 1 foot, areas of 1% annual chance stream
18 flooding where the contributing drainage area is less than 1 square mile, or areas
19 protected from the 1% annual chance flood by levees. No Base Flood Elevations or
20 depths are shown within this zone. Insurance purchase is not required in these zones.”

21 The Permittees characterization of the flooding potential is in Addendum L1, which
22 references the DOE Final Environmental Impact Statement, Section 7.4.1. The DOE
23 used data from the United States Geological Survey, which reported the maximum
24 flood stage for an August 23, 1966, event at monitoring station # 08406500 at Malaga,
25 New Mexico. This elevation was subtracted from the minimum elevation at the WIPP
26 site to determine that there is no flooding potential from the Pecos River. The DOE
27 used a regional topographic map to identify the closest approach of the Pecos River and
28 the minimum elevation of the WIPP site. A similar topographic map is shown in
29 Renewal Application Addendum L1, Figure L1-25. The Permittees used the general
30 ground elevation in the vicinity of the surface facilities to calculate the height above the
31 100-year floodplain to be over 400 feet. The Permittees have modified Renewal
32 Application Addendum Figure L1-25 to indicate the location of the USGS reporting
33 station on the Pecos River that is closest to the WIPP facility and that is used to
34 determine the height above the maximum reported historical flood.

35
36 To estimate the potential for overland flow and sheet flooding, the Permittees included
37 Appendix D7 in the original Part B Permit Application as the calculation of the

1 Probable Maximum Precipitation (PMP) event and used the information in the design of
2 berms, dikes and ditches. This information has not changed, so the Permittees have not
3 resubmitted or updated the PMP calculations in the Renewal Application.

4 (iii) Surface waters including intermittent streams.

5 There are no major surface waters or intermittent streams within 10 miles of the WIPP
6 facility.

7 (iv) Surrounding land uses (residential, commercial, agricultural, recreational).

8 See Figures Demographic A through F in *Maps and Illustrations* for the following
9 surrounding land uses:

- 10 • Demographic A: 2007 CY – Active Mines and Inhabited Ranches within a 10-
11 Mile Radius of the WIPP Facility
- 12 • Demographic B: 2007 CY - Maximum Yearly Cattle Density within a 50-Mile
13 Radius of the WIPP Facility
- 14 • Demographic C: 2007 CY - Natural Gas Pipelines within a 5-Mile Radius of the
15 WIPP Facility
- 16 • Demographic D: 2000 CY – Population within a 50-Mile Radius of the WIPP
17 Facility
- 18 • Demographic E: 2007 CY – Acres Planted in Edible Agriculture and
19 Commercial Crops within a 50-Mile Radius of the WIPP Facility
- 20 • Although there are no areas near the WIPP facility that are designated for public
21 recreation, a map of major parks and recreation areas found in Eddy and Lea
22 Counties has been provided as Demographic F: Major Parks and Recreation
23 Areas in Lea and Eddy Counties. The Permittees are unaware of formally
24 designated recreation areas within a ten-mile radius of the WIPP site. Transient
25 recreational usage (e.g., hunting, camping, off-road vehicle use, bird watching)
26 is permitted under the multiple use policies of the Bureau of Land Management
27 and the State Land Office. Within the WIPP site boundary transient recreational
28 usage is permitted outside the Off Limits Area. See Drawing 23-C-007-W for
29 the Off Limits Area.

30 (v) A wind rose (i.e., prevailing wind-speed and direction).

31 Shown in *Maps and Illustrations*.

1 (vi) Orientation of the map (north arrow).

2 All maps and appropriate figures contain a north arrow. A table entitled, *Maps and*
3 *Illustrations*, is provided to direct the reviewer to the drawings, maps, and illustration
4 providing the information required by 40 CFR 270.14(b)(19). The table also directs the
5 reader to other new or revised illustrated information.

6 (vii) Legal boundaries of the HWM facility site.

7 Shown on Figure 2-3 in *Part A Application*.

8 (viii) Access control (fences, gates).

9 Shown on Drawing 24-C-022-W in *Maps and Illustrations*.

10 (ix) Injection and withdrawal wells both on-site and off-site.

11 Shown on Figure 2-3 in *Part A Application*.

12 (x) Buildings; treatment, storage, or disposal operations; or other structure (recreation areas,
13 runoff control systems, access and internal roads, storm, sanitary, and process sewerage
14 systems, loading and unloading areas, fire control facilities, etc.)

15 The map for buildings, storage, or disposal operations; or other structures is located on
16 drawings 24-C-022-W, 24-C-066-W1, 23-C-011-W1, and 22-V-001-W in *Maps and*
17 *Illustrations*.

18 (xi) Barriers for drainage or flood control.

19 The map of barriers for drainage or flood control is included on drawing 23-C-011-W1
20 in *Maps and Illustrations*.

21 (xii) Location of operational units within the HWM facility site, where hazardous waste is (or
22 will be) treated, stored, or disposed (include equipment cleanup areas).

23 The map for the location of operational units within the HWM facility site, where
24 hazardous waste is stored or disposed, is located on Figure 2-3, *Topographic Map with*
25 *Underground Facilities*. Drawings that provide details of the location of the units
26 within the facility include 24-C-022-W, WIPP Site Facility Masterplan, 22-V-001-W,
27 *Underground Mine Plan Structure Contour of Base of Orange Marker Band*.

28 (20) Applicants may be required to submit such information as may be necessary to enable the
29 Regional Administrator to carry out his duties under other Federal laws as required in §270.3 of
30 this part.

1 The Permittees will submit information necessary to enable the Secretary to carry out
2 his duties under other Federal laws as required in § 40 CFR 270.3, as requested.

3 (21) For land disposal facilities, if a case-by-case extension has been approved under §268.5 or
4 a petition has been approved under §268.6, a copy of the notice of approval for the extension or
5 petition is required.

6 The WIPP Land Withdrawal Act Amendment of 1996 exempts waste designated by the
7 Secretary of DOE for disposal at the WIPP facility from the Land Disposal Restrictions
8 40 CFR 268.

9 (22) A summary of the pre-application meeting, along with a list of attendees and their
10 addresses, and copies of any written comments or materials submitted at the meeting, as
11 required under §124.31(c).

12 Information to satisfy the requirements of §124.31(c) is submitted with this Renewal
13 Application. Two sets of pre-application meetings were held. The first set of pre-
14 application meetings was held on February 10, 2009, and February 12, 2009, in
15 Carlsbad, New Mexico, and Santa Fe, New Mexico, respectively. The second set of
16 pre-application meetings was held on May 5, 2009, and May 7, 2009, in Carlsbad,
17 New Mexico, and Santa Fe, New Mexico, respectively. Summaries of the meetings,
18 lists of attendees, written comments, and material submitted at the meetings have been
19 included with this Renewal Application.

20 (c) *Additional information requirements.* The following additional information regarding protection of
21 groundwater is required from owners or operators of hazardous waste facilities containing a regulated
22 unit except as provided in §264.90(b) of this chapter:

23 (1) A summary of the ground-water monitoring data obtained during the interim status period
24 under §§265.90 through 265.94, where applicable.

25 The Permittees have not collected groundwater data under interim status.

26 (2) Identification of the uppermost aquifer and aquifers hydraulically interconnected beneath
27 the facility property, including ground-water flow direction and rate, and the basis for such
28 identification (*i.e.*, the information obtained from hydrogeologic investigations of the facility
29 area).

30 There has been no change in the identification of the uppermost aquifer or aquifers
31 hydraulically connected beneath the WIPP facility property as detailed in Renewal
32 Application Chapter L, *WIPP Groundwater Detection Monitoring Program Plan*.

33 (3) On the topographic map required under paragraph (b)(19) of this section, a delineation of
34 the waste management area, the property boundary, the proposed “point of compliance” as

1 defined under §264.95, the proposed location of groundwater monitoring wells as required
2 under §264.97, and, to the extent possible, the information required in paragraph (c)(2) of this
3 section.

4 There is no change to the delineation of the waste management area, the property
5 boundary, the point of compliance as defined under §264.95, or the location of
6 groundwater monitoring wells as required under §264.97 as illustrated in the
7 topographic map in Part A Application, Figure 2-3. The information required in
8 paragraph (c)(2) of this section (i.e., identification of the uppermost aquifer and aquifers
9 hydraulically interconnected beneath the facility property, including groundwater flow
10 direction and rate) is not illustrated on this topographic map. This information is
11 provided in detail in Renewal Application Chapter L, *WIPP Groundwater Detection*
12 *Monitoring Program Plan*.

13 (4) A description of any plume of contamination that has entered the groundwater from a
14 regulated unit at the time that the application was submitted that:

15 (i) Delineates the extent of the plume on the topographic map required under paragraph (b)(19)
16 of this section;

17 No plume of contamination has entered the groundwater from a regulated unit.

18 (ii) Identifies the concentration of each appendix IX, of part 264 of this chapter, constituent
19 throughout the plume or identifies the maximum concentrations of each appendix IX
20 constituent in the plume.

21 No plume of contamination has entered the groundwater from a regulated unit.

22 (5) Detailed plans and an engineering report describing the proposed groundwater monitoring
23 program to be implemented to meet the requirements of §264.97.

24 No contamination has entered the groundwater from a regulated unit.

25 (6) If the presence of hazardous constituents has *not* been detected in the groundwater at the
26 time of permit application, the owner or operator must submit sufficient information,
27 supporting data, and analyses to establish a detection monitoring program which meets the
28 requirements of §264.98. This submission must address the following items specified under
29 §264.98:

30 No hazardous constituents have been detected in groundwater in the vicinity of the
31 WIPP facility. Renewal Application Chapter L, *WIPP Groundwater Detection*
32 *Monitoring Program Plan*, includes the Detection Monitoring Program that has been
33 established to meet the requirements of §264.98.

1 (i) A proposed list of indicator parameters, waste constituents, or reaction products that can
2 provide a reliable indication of the presence of hazardous constituents in the ground water;

3 *There are no changes to the indicator parameters, waste constituents, or reaction*
4 *products that can provide a reliable indication of the presence of hazardous constituents*
5 *in the groundwater as listed Renewal Application Chapter L, WIPP Groundwater*
6 *Detection Monitoring Program Plan.*

7 (ii) A proposed ground-water monitoring system;

8 *The Permittees' groundwater monitoring system is detailed in Renewal Application*
9 *Chapter L, WIPP Groundwater Detection Monitoring Program Plan.*

10 (iii) Background values for each proposed monitoring parameter or constituent, or procedures
11 to calculate such values; and

12 *There has been no change to the background values for each proposed monitoring*
13 *parameter. The results of groundwater background measurements taken over a five*
14 *year period have been reported by the Permittees to establish a statistical baseline.*
15 *Furthermore, if the Permittees identify additional constituents to be monitored, the first*
16 *four samples are used to establish background values for that constituent.*

17 (iv) A description of proposed sampling, analysis and statistical comparison procedures to be
18 utilized in evaluating ground-water monitoring data.

19 *The Permittees' sampling, analysis and statistical comparison procedures to be utilized*
20 *in evaluating groundwater monitoring data are detailed in Renewal Application*
21 *Chapter L, WIPP Groundwater Detection Monitoring Program Plan.*

22 (7) If the presence of hazardous constituents has been detected in the groundwater at the point
23 of compliance at the time of the permit application, the owner or operator must submit
24 sufficient information, supporting data, and analyses to establish a compliance monitoring
25 program which meets the requirements of §264.99. Except as provided in §264.98(h)(5), the
26 owner or operator must also submit an engineering feasibility plan for a corrective action
27 program necessary to meet the requirements of §264.100, unless the owner or operator obtains
28 written authorization in advance from the Regional Administrator to submit a proposed permit
29 schedule for submittal of such a plan. To demonstrate compliance with §264.99, the owner or
30 operator must address the following items:

31 (i) A description of the wastes previously handled at the facility;

32 (ii) A characterization of the contaminated groundwater, including concentrations of hazardous
33 constituents;

1 (iii) A list of hazardous constituents for which compliance monitoring will be undertaken in
2 accordance with §§264.97 and 264.99;

3 (iv) Proposed concentration limits for each hazardous constituent, based on the criteria set forth
4 in §264.94(a), including a justification for establishing any alternate concentration limits;

5 (v) Detailed plans and an engineering report describing the proposed groundwater monitoring
6 system, in accordance with the requirements of §264.97; and

7 (vi) A description of proposed sampling, analysis and statistical comparison procedures to be
8 utilized in evaluating groundwater monitoring data.

9 **No contamination has entered the groundwater from a regulated unit. Therefore, the**
10 **informational requirements to items (i) through (vi) do not apply.**

11 (8) If hazardous constituents have been measured in the ground water which exceed the
12 concentration limits established under §264.94 Table 1, or if ground water monitoring
13 conducted at the time of permit application under §§265.90 through 265.94 at the waste
14 boundary indicates the presence of hazardous constituents from the facility in ground water
15 over background concentrations, the owner or operator must submit sufficient information,
16 supporting data, and analyses to establish a corrective action program which meets the
17 requirements of §264.100. However, an owner or operator is not required to submit information
18 to establish a corrective action program if he demonstrates to the Regional Administrator that
19 alternate concentration limits will protect human health and the environment after considering
20 the criteria listed in §264.94(b). An owner or operator who is not required to establish a
21 corrective action program for this reason must instead submit sufficient information to establish
22 a compliance monitoring program which meets the requirements of §264.99 and paragraph
23 (c)(6) of this section. To demonstrate compliance with §264.100, the owner or operator must
24 address, at a minimum, the following items:

25 (i) A characterization of the contaminated ground water, including concentrations of hazardous
26 constituents;

27 (ii) The concentration limit for each hazardous constituent found in the ground water as set
28 forth in §264.94;

29 (iii) Detailed plans and an engineering report describing the corrective action to be taken; and

30 (iv) A description of how the ground-water monitoring program will demonstrate the adequacy
31 of the corrective action.

32 (v) The permit may contain a schedule for submittal of the information required in paragraphs
33 (c)(8) (iii) and (iv) provided the owner or operator obtains written authorization from the
34 Regional Administrator prior to submittal of the complete permit application.

1 No contamination has entered the groundwater from a regulated unit. Therefore, this
2 requirement does not apply.

3 (d) *Information requirements for solid waste management units.* (1) The following information is
4 required for each solid waste management unit at a facility seeking a permit:

5 (i) The location of the unit on the topographic map required under paragraph (b)(19) of this
6 section.

7 (ii) Designation of type of unit.

8 (iii) General dimensions and structural description (supply any available drawings).

9 (iv) When the unit was operated.

10 (v) Specification of all wastes that have been managed at the unit, to the extent available.

11 The NMED determined that no further action is necessary to investigate 15 Solid Waste
12 Management Units (SWMUs) and eight Areas of Concern (AOCs) at the WIPP facility.
13 A Class 3 permit modification request to remove SWMUs and AOCs from their Permit
14 was approved by the NMED on October 23, 2008. No new SWMUs or AOCs have
15 been identified for inclusion in the Renewal Application.

16 (2) The owner or operator of any facility containing one or more solid waste management units
17 must submit all available information pertaining to any release of hazardous wastes or
18 hazardous constituents from such unit or units.

19 The NMED determined that no further action is necessary to investigate 15 SWMUs
20 and eight AOCs at the WIPP facility. A Class 3 permit modification request to remove
21 SWMUs and AOCs from their Permit was approved by the NMED on October 23,
22 2008. No new SWMUs or AOCs have been identified for inclusion in the Renewal
23 Application.

24 (3) The owner/operator must conduct and provide the results of sampling and analysis of
25 groundwater, land surface, and subsurface strata, surface water, or air, which may include the
26 installation of wells, where the Director ascertains it is necessary to complete a RCRA Facility
27 Assessment that will determine if a more complete investigation is necessary.

28 The NMED determined that no further action is necessary to investigate 15 SWMUs
29 and eight AOCs at the WIPP facility. A Class 3 permit modification request to remove
30 SWMUs and AOCs from their Permit was approved by the NMED on October 23,
31 2008. No new SWMUs or AOCs have been identified for inclusion in the Renewal
32 Application.

1 **§270.15 Specific part B information requirements for containers**

2 Except as otherwise provided in §264.170, owners or operators of facilities that store containers of
3 hazardous waste must provide the following additional information:

4 (a) A description of the containment system to demonstrate compliance with §264.175. Show at least
5 the following:

6 (1) Basic design parameters, dimensions, and materials of construction.

7 In the original Part B Permit Application, the Permittees submitted Appendix D3 which
8 contained detailed engineering information regarding the storage units and associated
9 buildings and structures in the form of drawings and diagrams. These represented the
10 “as-built” condition of the facility. Some of these drawings and diagrams have changed
11 significantly and therefore are being submitted with this Renewal Application.
12 Significant changes are considered to be those that altered a structure, added a new
13 structure, or modified the function of a structure. These drawings and diagrams are:

- 14 • 24-C-022-W: WIPP Site Facility Masterplan
- 15 • 23-C-011-W1: Salt Pile Infiltration Controls New Design
- 16 • 24-C-028-W1: WIPP Site Finish Grading and Paving
- 17 • 24-C-028-W2: Site Work Finish Grading and Paving Sections and Details
- 18 • 41-S-003-W1: Waste Handling Building 411 Firewater Collection Sprinkler
19 System P & ID [Piping and Instrumentation Diagram]
- 20 • 41-S-003-W2: Waste Handling Building 411 Firewater Collection Sprinkler
21 System P & ID [Piping and Instrumentation Diagram]
- 22 • 41-S-003-W3: Waste Handling Building 411 Firewater Collection Sprinkler
23 System P & ID [Piping and Instrumentation Diagram]
- 24 • 41-S-003-W4: Waste Handling Building 411 Firewater Collection Sprinkler
25 System P & ID [Piping and Instrumentation Diagram]
- 26 • 41-M-001-W: Waste Handling Facilities TRUPACT Dock Equipment
27 Arrangement
- 28 • 41-B-010-W1: CH Area Constant Volume, CH Area HVAC [Heating,
29 Ventilation, and Air Conditioning] Flow Diagram Supply Air

Black Text = Regulatory Citation

Blue Text = Permittees' Response

1 Containment systems are provided by transportation packaging for unloaded waste and
2 by the concrete floor of the Waste Handling Building as described in Renewal
3 Application Appendix M1, *Container Storage*. The Permittees proposed no changes to
4 the basic design parameters, dimensions, and materials of construction of the
5 containment system.

6 (2) How the design promotes drainage or how containers are kept from contact with standing
7 liquids in the containment system.

8 The Permittees propose no changes in the manner in which the containers are kept from
9 contacting standing liquids as detailed Renewal Application Appendix M1, *Container*
10 *Storage*, Section M1-1f, *Containment*.

11 (3) Capacity of the containment system relative to the number and volume of containers to be
12 stored.

13 The Permittees propose no changes in the capacity of the containment system relative to
14 numbers and volume of containers to be stored, as detailed in Renewal Application
15 Appendix M1, *Container Storage*, Section M1-1f, *Containment*.

16 (4) Provisions for preventing or managing run-on.

17 The Permittees propose no change in the manner in which they manage run-on as
18 detailed in Renewal Application Chapter E, *Preparedness and Prevention*, Section E-2b
19 *Runoff* and Appendix M1, *Container Storage*, Section M1-1i, *Control of Run On*.

20 (5) How accumulated liquids can be analyzed and removed to prevent overflow.

21 The Permittees propose no change to the manner in which accumulated liquids can be
22 analyzed and removed to prevent overflow as described in the Renewal Application
23 Chapter F-4b, *Identification of Hazardous Materials*, and Renewal Application
24 Appendix M1, *Container Storage*.

25 (b) For storage areas that store containers holding wastes that do not contain free liquids, a
26 demonstration of compliance with §264.175(c), including:

27 (1) Test procedures and results or other documentation or information to show that the wastes
28 do not contain free liquids; and

29 The Permittees propose no change. The DOE manages all TRU mixed waste containers
30 in the Parking Area and the Waste Handling Building as though they contain up to one
31 percent residual liquids. Appropriate secondary containment calculations are provided
32 in Appendix M1, *Container Storage* of the Renewal Application. Consequently, the

1 requirements in 20 4.1.500 NMAC, incorporating 40 CFR §264.175(c) do not apply to
2 the WIPP facility.

3 (2) A description of how the storage area is designed or operated to drain and remove liquids
4 or how containers are kept from contact with standing liquids.

5 The Permittees propose no change. The DOE manages all TRU mixed waste containers
6 in the Parking Area and the Waste Handling Building as though they contain up to one
7 percent residual liquids. Appropriate secondary containment calculations are provided
8 in Appendix M1, *Container Storage* of the Renewal Application. Consequently, the
9 requirements in 20 4.1.500 NMAC, incorporating 40 CFR §264.175(c) do not apply to
10 the WIPP facility.

11 (c) Sketches, drawings, or data demonstrating compliance with §264.176 (location of buffer
12 zone and containers holding ignitable or reactive wastes) and §264.177(c) (location of
13 incompatible wastes), where applicable.

14 All waste received at the WIPP facility will be determined to be compatible prior to
15 being received at the WIPP facility. Ignitable, reactive, or corrosive waste (i.e.,
16 compressed gases and liquids in excess of the TSDF-WAC) are prohibited in
17 accordance with the TSDF-WAC. Therefore, a buffer zone for containers holding
18 ignitable or reactive wastes and incompatible wastes is not needed.

19 (d) Where incompatible wastes are stored or otherwise managed in containers, a description of
20 the procedures used to ensure compliance with §§264.177 (a) and (b), and 264.17 (b) and (c).

21 The Permittees propose no change to the compatibility determination as identified in
22 Renewal Application Chapter B, *Waste Analysis Plan*. Furthermore, the TSDF-WAC in
23 Renewal Application Chapter B, *Waste Analysis Plan*, prohibits the receipt of
24 incompatible waste and Renewal Application Chapter F, *RCRA Contingency Plan*,
25 requires the evaluation of compatibility.

26 (e) Information on air emission control equipment as required in §270.27.

27 Pursuant to 40 CFR 264.1080(a)(6), air emission controls for containers do not apply to
28 radioactive mixed waste. Therefore, this requirement is not applicable.

29 **§270.23 Specific part B information requirements for miscellaneous units**

30 Except as otherwise provided in §264.600, owners and operators of facilities that treat, store, or
31 dispose of hazardous waste in miscellaneous units must provide the following additional information:

32 (a) A detailed description of the unit being used or proposed for use, including the following:

1 (1) Physical characteristics, materials of construction, and dimensions of the unit;

2 In the original Part B Permit Application, the Permittees submitted Appendix D3 which
3 contained detailed engineering information regarding the disposal units and associated
4 buildings and structures in the form of drawings and diagrams. These represented the
5 “as-built” condition of the facility. Some of these drawings and diagrams have changed
6 significantly and therefore are being submitted with this Renewal Application.
7 Significant changes are considered to be those that altered a structure, added a new
8 structure, or modified the function of a structure. These drawings and diagrams are:

- 9 • 22-V-001-W: Underground Mine Plan Structure Contour of Base of Orange
10 Marker Band
- 11 • 53-J-039-W: Underground Utilities Fire Panel 534-FP-0320
- 12 • 53-J-042-W: Underground Utilities Fire Panel 534-FP-00601
- 13 • 54-W-009-W: Underground Mine Plan Shaft and Drift Dimensions

14 This notwithstanding, there are no changes in the physical characteristics, materials of
15 construction, and dimensions of the units. Through this Renewal Application, the
16 Permittees are proposing the authorization to dispose of TRU-mixed waste of both CH
17 and RH TRU mixed-waste in Panel 8. In a previously approved Class 3 permit
18 modification request (May 2003), the New Mexico Environment Department approved
19 the construction and use of Panels (i.e., Hazardous Waste Disposal Units) 4 through 7
20 and the construction of Panel 8. The use of Panel 8 for disposal of TRU mixed waste
21 was not authorized at that time. Prior to using Panel 8 for TRU mixed waste disposal,
22 the Permittees will submit to the Secretary, by certified mail or hand delivery, a letter
23 signed by the Permittees and a New Mexico registered professional engineer stating
24 Panel 8 has been constructed in compliance with the Permit, and the Permittees will not
25 manage any hazardous waste in Panel 8 until the Secretary has either inspected the
26 modified portion of the facility and finds it is in compliance with the conditions of this
27 Permit; or waived the inspection or, within fifteen calendar days of the date of
28 submission of the letter required above, has not notified the Permittees of his intent to
29 inspect.

30 (2) Detailed plans and engineering reports describing how the unit will be located, designed,
31 constructed, operated, maintained, monitored, inspected, and closed to comply with the
32 requirements of §§264.601 and 264.602; and

33 The Permittees are not proposing any changes to detailed plans and engineering reports
34 describing how the unit will be located, designed, constructed, operated, maintained,
35 monitored, inspected, and closed to comply with the requirements of 264.601 and

1 264.602,- as described in Renewal Application Appendix M1, *Container Storage*; M2,
2 *Geologic Repository*; Chapter D, *Inspection Schedule, Process and Forms*; Appendix
3 D1, *Inspection Sheets*, Chapter L, *WIPP Groundwater Detection Monitoring Program*
4 *Plan*; Chapter N, *Volatile Organic Compounds Monitoring Plan*; Appendix N1,
5 *Hydrogen and Methane Monitoring Plan*; and the WIPP facility Closure Plan
6 documents: Renewal Application Chapter I through Appendix I3, and Post-Closure
7 Plan documents: Renewal Application Chapter J and Appendix J1.

8 (3) For disposal units, a detailed description of the plans to comply with the post-closure
9 requirements of §264.603.

10 There are no changes to the plans to comply with the post-closure requirements of
11 §264.603 as detailed in Renewal Application Chapter J, *Post-Closure Plan*.

12 (b) Detailed hydrologic, geologic, and meteorologic assessments and land-use maps for the region
13 surrounding the site that address and ensure compliance of the unit with each factor in the
14 environmental performance standards of §264.601. If the applicant can demonstrate that he does not
15 violate the environmental performance standards of §264.601 and the Director agrees with such
16 demonstration, preliminary hydrologic, geologic, and meteorologic assessments will suffice.

17 There are no changes to the detailed hydrologic, geologic, and meteorologic
18 assessments and land-use maps for the region surrounding the site that address and
19 ensures compliance of the unit with each factor in the environmental performance
20 standards of §264.601. However, updated information is provided in Renewal
21 Application Addendum L1, *Site Characterization*.

22 (c) Information on the potential pathways of exposure of humans or environmental receptors to
23 hazardous waste or hazardous constituents and on the potential magnitude and nature of such
24 exposures.

25 Since the original permit application was submitted, there have been changes to the
26 conceptual models that predict repository behavior. The Permittees have reevaluated the
27 performance demonstration information submitted with the original Part B Application.
28 Accordingly, Illustrations from the original Part B Application regarding the 300-year
29 performance demonstration have been updated. The updated figures are provided in
30 Renewal Application Addendum N1, *300-year Performance Demonstration Re-Evaluation*.
31 The figures illustrate the following information:

- 32 • Figure 1 - Predicted Change in Repository Pressure Following Closure for the
33 PABC and Original Performance Demonstrations
- 34 • Figure 2 - Predicted Cumulative Moles of Gas Generated Per Drum of Waste for
35 the PABC and Original Performance Demonstrations

- 1 • Figure 3 - Predicted Cumulative Brine Inflow into a Closed Waste Panel for the
2 PABC and Original Performance Demonstrations
- 3 • Figure 4 - Predicted Change in Panel Pore Volume Due to Creep Closure for the
4 PABC and Original Performance Demonstrations
- 5 • Figure 5 - Predicted Average Brine Saturation in the Panel for the PABC and
6 Original Performance Demonstrations

7 There is no change to the conclusions reached in the original permit application, that is, the
8 only viable mechanism for a release from the repository is the air emissions pathway. This
9 pathway exists prior to final closure. No viable releases along soil or water pathways were
10 identified. There is no change to the potential exposure of humans or environmental receptors
11 to hazardous waste or hazardous constituents or to the magnitude and nature of such exposures.

12 (d) For any treatment unit, a report on a demonstration of the effectiveness of the treatment based on
13 laboratory or field data.

14 The Waste Isolation Pilot Plant facility does not operate treatment units.

15 (e) Any additional information determined by the Director to be necessary for evaluation of
16 compliance of the unit with the environmental performance standards of §264.601.

17 Any additional information determined by the Secretary to be necessary for evaluation of
18 compliance of the unit with the environmental performance standards of §264.601 will be
19 provided as requested.