

**ATTACHMENT A**

**GENERAL FACILITY DESCRIPTION AND PROCESS INFORMATION**

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1 **ATTACHMENT A**

2 **GENERAL FACILITY DESCRIPTION AND**  
3 **PROCESS INFORMATION**

4 A-1 Facility Description

5 **Abstract**

6 NAME OF FACILITY: Waste Isolation Pilot Plant

7 OWNER and CO-OPERATOR: U.S. Department of Energy  
8 P.O. Box 3090  
9 Carlsbad, NM 88221

10 CO-OPERATOR: Washington TRU Solutions LLC  
11 P.O. Box 2078  
12 Carlsbad, NM 88221

13 RESPONSIBLE OFFICIALS: David. C. Moody, Manager  
14 DOE/Carlsbad Field Office  
15 Farok Sharif, General Manager  
16 Washington TRU Solutions LLC

17 FACILITY MAILING ADDRESS: U.S. Department of Energy  
18 P.O. Box 3090  
19 Carlsbad, NM 88221

20 FACILITY LOCATION: 30 miles east of Carlsbad on the Jal Highway, in  
21 Eddy County.

22 TELEPHONE NUMBER: 575/234-7300

23 U.S. EPA I.D. NUMBER: NM4890139088

24 GEOGRAPHIC LOCATION: 32° 22' 30" N  
25 103° 47' 30" W

26 DATE OPERATIONS BEGAN: November 26, 1999

## 1 A-2 Description of Activities

2 The Waste Isolation Pilot Plant (**WIPP**) is a facility for the management, storage, and disposal of  
3 transuranic (**TRU**) mixed waste subject to regulation under Title 20 of the New Mexico  
4 Administrative Code, Chapter 4, Part 1, Subpart 500 (20.4.1.500 NMAC)<sup>[SOZ1]</sup>. Both contact-  
5 handled (**CH**) and remote-handled (**RH**) TRU mixed wastes are permitted for storage ~~or~~ and  
6 disposal at the WIPP facility.

## 7 A-3 Property Description

8 The WIPP ~~facility-property~~ has been divided into functional areas. The Property Protection Area  
9 (**PPA**), surrounded by a chain-link security fence, encompasses 34.16 acres and provides  
10 security and protection for all major surface structures. The DOE Off Limits Area encloses the  
11 PPA, and is approximately 1,454 acres. These areas define the DOE exclusion zone within  
12 which certain items and material are prohibited. The final zone is marked by the WIPP Site  
13 Boundary (WIPP ~~IL~~ and ~~W~~Withdrawal ~~a~~Area), a 16-section Federal land area under the  
14 jurisdiction of the DOE.

## 15 A-4 Facility Type

16 There are three basic groups of structures associated with the WIPP facility: surface structures,  
17 shafts and underground structures. The surface structures accommodate the personnel,  
18 equipment, and support services required for the receipt, preparation, and transfer of TRU  
19 mixed waste from the surface to the underground. There are two surface locations where TRU  
20 mixed waste ~~will be is~~ managed and stored. The first area is the Waste Handling Building  
21 (**WHB**) Container Storage Unit (**WHB Unit**) for TRU mixed waste management and storage.  
22 The WHB Unit consists of the WHB contact-handled (**CH**) Bay and the remote-handled (**RH**)  
23 Complex. The second area designated for managing and storing TRU mixed waste is the  
24 Parking Area Container Storage Unit (**Parking Area Unit**), an outside container storage area  
25 which extends south from the WHB to the rail siding. The Parking Area Unit provides storage  
26 space for up to 50 loaded Contact-Handled Packages and 14 loaded Remote-Handled  
27 Packages on an asphalt and concrete surface. Part 3 of the permit authorizes the storage and  
28 management of CH and RH TRU mixed waste containers in these two surface locations. The  
29 technical requirements of 20.4.1.500 NMAC (incorporating 40 CFR §§264.170 to 264.178) are  
30 applied to the operation of the WHB Unit and the Parking Area Unit. Permit Attachment A1  
31 describes the container storage units, the TRU mixed waste management facilities and  
32 operations, and compliance with the technical requirements of 20.4.1.500 NMAC<sup>[SOZ2]</sup>.

33 Four vertical shafts connect the surface facility to the underground. These are the Waste Shaft,  
34 the Salt Handling Shaft, the Exhaust Shaft and the Air Intake Shaft. The Waste Shaft is the only  
35 shaft used to transport TRU mixed waste to the underground. The WIPP underground  
36 structures are located in a mined salt bed 2,150 feet below the surface.

37 The WIPP is a geologic repository mined within a bedded salt formation, which is defined in  
38 20.4.1.100 NMAC (incorporating 40 CFR §260.10) as a miscellaneous unit. As such, hazardous  
39 waste management units within the repository are subject to permitting according to 20.4.1.900  
40 and .901 NMAC (incorporating 40 CFR §270), and are regulated under 20.4.1.500 NMAC,  
41 Miscellaneous Units<sup>[SOZ3]</sup>.

1 The underground structures include the underground Hazardous Waste Disposal Units  
2 (**HWDUs**), an area for future underground HWDUs, the shaft pillar area, interconnecting drifts  
3 and other areas unrelated to the RCRA-Hazardous Waste Facility Permit. The underground  
4 HWDUs are defined as waste panels, each consisting of seven rooms and two access drifts.  
5 The WIPP underground area is designated as Panels 1 through 10, although only Panels 1  
6 through 7-8 will be used under the terms of this permit. Each of the seven rooms is  
7 approximately 300 feet long, 33 feet wide and 13 feet high. Part 4 of the permit authorizes the  
8 management and disposal of CH and RH TRU mixed waste containers in underground HWDUs.  
9 The Disposal Phase consists of receiving CH and RH TRU mixed waste shipping containers,  
10 unloading and transporting the waste containers to the underground HWDUs, emplacing the  
11 waste in the underground HWDUs, and subsequently achieving closure of the underground  
12 HWDUs in compliance with applicable State and Federal regulations. As required by 20.4.1.500  
13 NMAC (incorporating 40 CFR §264.601), the Permittees shall ensure that the environmental  
14 performance standards for a miscellaneous unit, which are applied to the underground HWDUs  
15 in the geologic repository, will be met. Permit Attachment A2 describes the underground  
16 HWDUs, the TRU mixed waste management facilities and operations, and compliance with the  
17 technical requirements of 20.4.1.500 NMAC [SOZ4].

#### 18 A-5 Waste Description

19 Wastes destined for WIPP are byproducts of nuclear weapons production and have been  
20 identified in terms of waste streams based on the processes that produced them. Each waste  
21 stream identified by generators is assigned to a Waste Summary Category to facilitate RCRA  
22 waste characterization, and reflect the final waste forms acceptable for WIPP disposal.

23 These Waste Summary Categories are:

#### 24 S3000—Homogeneous Solids

25 Solid process residues defined as solid materials, excluding soil, that do not meet the  
26 applicable regulatory criteria for classification as debris [20.4.1.800 NMAC, (incorporating  
27 40 CFR §268.2(g) and (h))]. Solid process residues include inorganic process residues,  
28 inorganic sludges, salt waste, and pyrochemical salt waste. Other waste streams are  
29 included in this Waste Summary Category based on the specific waste stream types and  
30 final waste form. This category includes wastes that are at least 50 percent by volume  
31 solid process residues.

#### 32 S4000—Soils/Gravel

33 This waste summary category includes waste streams that are at least 50 percent by  
34 volume soil. Soils are further categorized by the amount of debris included in the matrix.

#### 35 S5000—Debris Wastes

36 This waste summary category includes waste that is at least 50 percent by volume  
37 materials that meet the NMAC criteria for classification as debris (20.4.1.800 NMAC  
38 (incorporating 40 CFR §268.2)). Debris means solid material exceeding a 2.36 inch (60  
39 millimeter) particle size that is intended for disposal and that is: 1) a manufactured object,  
40 2) plant or animal matter, or 3) natural geologic material.

41 The S5000 Waste Summary Category includes metal debris, metal debris containing lead,  
42 inorganic nonmetal debris, asbestos debris, combustible debris, graphite debris,  
43 heterogeneous debris, and composite filters, as well as other minor waste streams.

1           Particles smaller than 2.36 inches in size may be considered debris if the debris is a  
2           manufactured object and if it is not a particle of S3000 or S4000 material.

3           If a waste does not include at least 50 percent of any given category by volume,  
4           characterization shall be performed using the waste characterization process required for the  
5           category constituting the greatest volume of waste for that waste stream.

6           Wastes may be generated at the WIPP facility as a direct result of managing the TRU and TRU  
7           mixed wastes received from the off-site generators. Such waste may be generated in either the  
8           WHB or the underground. This waste is referred to as "derived waste." All such derived waste  
9           will be placed in the rooms in HWDUs along with the TRU mixed waste for disposal.

10          Non-mixed hazardous wastes generated at the WIPP, through activities where contact with TRU  
11          mixed waste does not occur, are characterized, placed in containers, and stored (for periods not  
12          exceeding the limits specified in 20.4.1.300 NMAC (incorporating 40 CFR §262.34)) until they  
13          are transported off site for treatment and/or disposal at a permitted facility. This waste  
14          generation and accumulation activity, when performed in compliance with 20.4.1.300 NMAC  
15          (incorporating 40 CFR §262), is not subject to RCRA permitting requirements and, as such, is  
16          not addressed in the permit.

17          A-6 Chronology of Events Relevant to Changes in Ownership or Operational Control

18          December 19, 1997    NMED received notification of a change of name/ownership from  
19                                    Westinghouse Electric Corporation to CBS Corporation. The WIPP  
20                                    Management and Operating Contractor (**MOC**), Westinghouse Waste  
21                                    Isolation Division (**WID**), became a division of Westinghouse Electric  
22                                    Company, which in turn was a division of CBS Corporation. Notification to  
23                                    NMED was made by the permit applicant in a letter dated December 18,  
24                                    1997. The permit application was under review, but a draft permit was not  
25                                    yet issued.

26          September 22, 1998   NMED received notification of a pending transfer of ownership for the  
27                                    MOC, Westinghouse WID, from CBS Corporation to an as-yet-to-be-  
28                                    named limited liability company owned jointly by British Nuclear Fuels, plc  
29                                    and Morrison-Knudsen Corporation. The transfer of ownership was  
30                                    scheduled to occur on or about December 15, 1998. Notification to NMED  
31                                    was made by the permit applicant in a letter dated September 17, 1998.  
32                                    The draft permit had been issued for public comment, but the final permit  
33                                    was not yet issued.

34          March 9, 1999           NMED again received notification of the pending divestiture of the MOC,  
35                                    Westinghouse WID, by CBS Corporation to the limited liability company  
36                                    owned jointly by British Nuclear Fuels, plc and Morrison-Knudsen  
37                                    Corporation known as MK/BNFL GESCO LLC. The new MOC would be  
38                                    renamed to Westinghouse Government Environmental Services  
39                                    Company LLC. Notification to NMED was made by the permit applicant in  
40                                    a letter dated March 2, 1999. The public hearing on the permit was  
41                                    underway, but the final permit was not yet issued.



- 1 March 26, 1999 NMED received official notification of the divestiture of Westinghouse  
2 Electric Company by CBS Corporation to MK/BNFL GESCO LLC  
3 effective March 22, 1999. The MOC was renamed Westinghouse  
4 Government Environmental Services Company LLC (**WGES**), of which  
5 Westinghouse Waste Isolation Division was a division. This transaction  
6 constituted a change of operational control under 20.4.1.900 NMAC  
7 (incorporating 40 CFR §270.40). Notification to NMED was made by the  
8 permit applicant in a letter dated March 24, 1999. The public hearing on  
9 the permit was nearly concluded, but the final permit was not yet issued.
- 10 April 28, 1999 NMED received a revised Part A Permit Application in a letter dated April  
11 21, 1999, reflecting that the Westinghouse Waste Isolation Division, co-  
12 operator of the WIPP hazardous waste facility, was now a part of WGES.  
13 However, the final permit, issued October 27, 1999, did not reflect the  
14 change in ownership.
- 15 July 25, 2000 NMED received a Class 1 permit modification in a letter dated July 21,  
16 2000, changing the name in the Permit from Westinghouse Electric  
17 Corporation to Westinghouse Government Environmental Services  
18 Company LLC (**WGES**), Waste Isolation Division (**WID**). However, this  
19 notification did not constitute the required permit modification under  
20 20.4.1.900 NMAC (incorporating 40 CFR §270.40) necessary to reflect  
21 the transfer of the permit to a new operator.
- 22 December 15, 2000 DOE announced that it had awarded a five-year contract for management  
23 and operation of WIPP to Westinghouse TRU Solutions LLC, a limited  
24 liability company owned jointly by WGES LLC and Roy F. Weston, Inc.  
25 The announcement further stated that, following a brief transition period,  
26 the new contractor would assume MOC responsibilities on February 1,  
27 2001. This transaction constituted a change of operational control under  
28 20.4.1.900 NMAC (incorporating 40 CFR §270.40) requiring a Class 1  
29 permit modification with prior written approval of NMED.
- 30 February 5, 2001 NMED received a Class 1 permit modification in a letter dated February 2,  
31 2001, which notified NMED of an organizational name change of the  
32 MOC from Westinghouse Government Environmental Services Company  
33 LLC Waste Isolation Division to Westinghouse TRU Solutions LLC.  
34 However, this notification did not constitute the required permit  
35 modification under 20.4.1.900 NMAC (incorporating 40 CFR §270.40)  
36 necessary to reflect the transfer of the permit to a new operator.
- 37 December 31, 2002 NMED received a Class 1 permit modification in a letter dated December  
38 27, 2002, which changed the name of the MOC from Westinghouse TRU  
39 Solutions LLC to Washington TRU Solutions LLC. Again, this notification  
40 did not constitute the required permit modification under 20.4.1.900  
41 NMAC (incorporating 40 CFR §270.40) necessary to reflect the transfer of  
42 the permit to a new operator.
- 43 February 28, 2003 NMED received a Class 1 permit modification requiring prior agency  
44 approval in a letter dated February 28, 2003, to satisfy the requirements

- 1 specified in 20.4.1.900 NMAC (incorporating 40 CFR §270.40) to reflect  
2 the transfer of the permit to a new operator.
- 3 September 16, 2004 NMED received a Class 1 permit modification requiring prior agency  
4 approval in a letter dated September 16, 2004, describing a change of  
5 ownership of Washington TRU Solutions LLC (**WTS**). WTS is owned  
6 jointly by WGES, managing member, and Weston Solutions, Inc. WGES  
7 had been owned jointly by Washington Group International, Inc. (**WGI**),  
8 and BNFL Nuclear Services, Inc. However, WGI has acquired BNFL's  
9 prior interest in the former Westinghouse government services  
10 businesses, which includes BNFL's prior interest in WGES.
- 11 August 6, 2007 NMED received notification in a letter dated August 2, 2007 of the  
12 pending acquisition of WGI by URS Corporation at an unknown future  
13 date. This acquisition would be related to operational control, because  
14 WGI is the sole owner of WGES, managing member of the joint venture,  
15 along with Weston Solutions, Inc., that owns WTS, the WIPP MOC. This  
16 notification was submitted to assure compliance with 20.4.1.900 NMAC  
17 (incorporating 40 CFR §270.40(b)).
- 18 November 26, 2007 NMED received a Class 1 permit modification requiring prior agency  
19 approval in a letter dated November 19, 2007, describing a change of  
20 ownership of WTS. On November 15, 2007, WGI was acquired by URS  
21 Corporation. WTS is owned jointly by WGES, managing member, and  
22 Weston Solutions, Inc. WGES, formerly owned by WGI, is now owned by  
23 URS Corporation