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ATTACHMENT A

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GENERAL FACILITY DESCRIPTION AND PROCESS INFORMATION

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 **(DOE)**
8 P.O. Box 3090
9 Carlsbad, NM 88221

10 CO-OPERATOR: Nuclear Waste Partnership LLC **(NWP)**
11 P.O. Box 2078
12 Carlsbad, NM 88221

13 RESPONSIBLE OFFICIALS: Reinhard Knerr
14 Manager, DOE/Carlsbad Field Office
15 Sean Dunagan
16 Project Manager, Nuclear Waste Partnership LLC

17 FACILITY MAILING ADDRESS: U.S. Department of Energy
18 P.O. Box 3090
19 Carlsbad, NM 88221
20

21 FACILITY LOCATION: 34 Louis Whitlock Road, Carlsbad, NM 88220

22 TELEPHONE NUMBER: 575/234-7300

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

24 GEOGRAPHIC LOCATION: 32.3697706
25 (WGS84) -103.7913501

26 DATE OPERATIONS BEGAN: November 26, 1999

27

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 20.4.1.500 New Mexico
4 Administrative Code (NMAC), incorporating Title 40 of the Code of Federal Regulations (CFR)
5 Part 264. Both contact-handled (**CH**) and remote-handled (**RH**) TRU mixed wastes are
6 permitted for storage and disposal at the WIPP facility.

7 A-3 Property Description

8 The WIPP property has been divided into functional areas. The Property Protection Area (**PPA**)
9 is surrounded by a security barrier, which encompasses approximately 34 acres without the
10 New Filter Building (**NFB**) and approximately 44 acres with the NFB and provides security and
11 protection for ~~all the~~ major surface structures. A second PPA consisting of a nominal 22 acres
12 surrounds Shaft #5. The DOE Off Limits Area encloses the PPA and is approximately 1,454
13 acres. These areas define the DOE exclusion zone within which certain items and material are
14 prohibited. The final zone is marked by the WIPP Site Boundary (~~WIPP Land Withdrawal Area~~),
15 a 16-section Federal land area (Land Withdrawal Area) under the jurisdiction of the DOE.

16 A-4 Facility Type

17 There are three basic groups of structures associated with the WIPP facility: surface structures,
18 shafts and underground structures. The surface structures accommodate the personnel,
19 equipment, and support services required for the receipt, preparation, and transfer of TRU
20 mixed waste from the surface to the underground. There are two surface locations where TRU
21 mixed waste is managed and stored. The first area is the Waste Handling Building (**WHB**)
22 Container Storage Unit (**WHB Unit**) for TRU mixed waste management and storage. The WHB
23 Unit consists of the WHB ~~contact-handled (CH)~~CH Bay, Room 108, and the ~~remote-handled~~
24 ~~(RH)~~RH Complex. The second area designated for managing and storing TRU mixed waste is
25 the Parking Area Container Storage Unit (~~Parking Area Unit~~PAU), an outside container storage
26 area which extends south from the WHB to the ~~rail siding~~chain-link security fence. The ~~Parking~~
27 ~~Area Unit~~PAU provides storage space for ~~up to 50 loaded Contact-Handled Packages~~CH
28 ~~shipping containers referred to as CH packages~~ and ~~14 loaded Remote-Handled Packages~~RH
29 ~~shipping containers referred to as RH packages~~ on an asphalt and concrete surface. Permit
30 Part 3 of the permit authorizes the storage and management of CH and RH TRU mixed waste
31 containers in these two surface locations. The technical requirements of 20.4.1.500 NMAC
32 (incorporating 40 CFR §§264.170 to 264.178) are applied to the operation of the WHB Unit and
33 the ~~Parking Area Unit~~PAU. Permit Attachment A1 describes the container storage units, the
34 TRU mixed waste management facilities and operations, and compliance with the technical
35 requirements of 20.4.1.500 NMAC (incorporating 40 CFR §§264.170 to 264.178).

36 Four vertical shafts connect the surface facility to the underground. These are the Waste Shaft,
37 the Salt Handling Shaft, the Exhaust Shaft, and the Air Intake Shaft. A fifth shaft, Shaft #5,
38 located nominally 1,200 feet west of the Air Intake Shaft also connects the underground facility
39 to the surface. The Waste Shaft is the only shaft used to transport TRU mixed waste to the
40 underground. The WIPP facility underground structures are located in a mined salt bed
41 approximately 2,150 feet below the surface. The underground facility is defined in 20.4.1.100
42 NMAC (incorporating 40 CFR §260.10) as a "miscellaneous unit." As a miscellaneous unit,
43 hazardous waste management units within the repository are subject to permitting according to

20.4.1.900 and 20.4.1.901 NMAC (incorporating 40 CFR Part 270) and are regulated under 20.4.1.500 NMAC (incorporating 40 CFR 264, Subpart X, Miscellaneous Units).

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

The underground structures include the underground Hazardous Waste Disposal Units (HWDUs), ~~an area~~areas for future underground HWDUs, the shaft pillar area, interconnecting drifts and other areas unrelated to the Hazardous Waste Facility Permit. The underground HWDUs are defined as waste panels, each consisting of seven rooms and two access drifts. The WIPP facility underground area is designated as Panels 1 through ~~40~~12, although only Panels ~~4~~7 through ~~8~~12, will be used under the terms of this ~~permit~~Permit, because Panels 1-6 are filled and closed. Each of the seven rooms is approximately 300 feet long, 33 feet wide and 13 feet high in Panels 1-7, and approximately 300 feet long, 33 feet wide, and 16 feet high in Panel 8. Permit Part 4 ~~of the permit~~ authorizes the management and disposal of CH and RH TRU mixed waste containers in underground HWDUs.

The Disposal Phase ~~of the WIPP Project~~ consists of receiving loaded CH and RH ~~TRU mixed waste shipping containers~~packages, unloading and transporting the waste containers to the underground HWDUs, emplacing the waste in the underground HWDUs, and subsequently achieving closure of the underground HWDUs in compliance with applicable ~~State~~state and ~~Federal~~federal regulations. As required by 20.4.1.500 NMAC (incorporating 40 CFR §264.601), the Permittees shall ensure that the environmental performance standards for a miscellaneous unit, which are applied to the underground HWDUs in the geologic repository, will be met. Permit Attachment A2 describes the underground HWDUs, the TRU mixed waste management facilities and operations, and compliance with the technical requirements of 20.4.1.500 NMAC (incorporating 40 CFR Part 264). Permit Attachments G, G1, and G2 describe the closure activities.

A-5 Waste Description

Wastes destined for disposal at the WIPP facility are byproducts of nuclear weapons production and have been identified in terms of waste streams based on the processes that produced them. ~~Each waste~~Waste streams identified by generators ~~is~~are assigned to a Waste Summary Category to ~~facilitate RCRA waste characterization, and~~ reflect the final waste forms acceptable for ~~WIPP transportation and~~ disposal. Details regarding the Summary Category Groups and waste characterization can be found in Permit Attachment C.

~~These Waste Summary Categories are:~~

S3000—Homogeneous Solids

~~Solid process residues defined as solid materials, excluding soil, that do not meet the applicable regulatory criteria for classification as debris [20.4.1.800 NMAC, (incorporating 40 CFR §268.2(g) and (h))]. Solid process residues include inorganic process residues, inorganic sludges, salt waste, and pyrochemical salt waste. Other waste streams are included in this Waste Summary Category based on the specific waste stream types and~~

~~final waste form. This category includes wastes that are at least 50 percent by volume solid process residues.~~

~~S4000—Soils/Gravel~~

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

~~S5000—Debris Wastes~~

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

~~The S5000 Waste Summary Category includes metal debris, metal debris containing lead, inorganic nonmetal debris, asbestos debris, combustible debris, graphite debris, heterogeneous debris, and composite filters, as well as other minor waste streams. Particles smaller than 2.36 inches in size may be considered debris if the debris is a manufactured object and if it is not a particle of S3000 or S4000 material.~~

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

Wastes may be generated at the WIPP facility as a direct result of managing the TRU and TRU mixed wastes received from the off-site generators. Such waste may be generated in either the WHB or the underground. This waste is referred to as “derived waste-,” which means its hazardous waste characteristics are derived from the off-site waste that produced it. All ~~s~~Such derived waste will be placed in the rooms in HWDUs along with the TRU mixed waste for disposal.

Non-mixed hazardous wastes generated at the WIPP facility, through activities where contact with TRU mixed waste does not occur, are characterized, placed in containers, and stored (for periods not exceeding the limits specified in 20.4.1.300 NMAC (incorporating 40 CFR §262.17)) until they are transported off site for treatment and/or disposal at a permitted-designated facility. This waste generation and accumulation activity, when performed in compliance with 20.4.1.300 NMAC (incorporating 40 CFR §Part 262), is not subject to RCRA permitting requirements and, as such, is not addressed in the permit, with the exception of the requirements of 20.4.1.300 NMAC (incorporating 40 CFR Part 262, Subpart M), which are addressed in Permit Attachment D.

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

2 December 19, 1997 The New Mexico Environment Department (NMED) received notification
3 of a change of name/ownership from Westinghouse Electric Corporation
4 to CBS Corporation. The WIPP facility Management and Operating
5 Contractor (**MOC**), Westinghouse Waste Isolation Division (**WID**),
6 became a division of Westinghouse Electric Company, which in turn was
7 a division of CBS Corporation. Notification to NMED was made by the
8 permit applicant in a letter dated December 18, 1997. The ~~permit~~ Permit
9 application was under review, but a draft ~~permit~~ Permit was not yet
10 issued.

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

19 March 9, 1999 The NMED again received notification of the pending divestiture of the
20 MOC, Westinghouse WID, by CBS Corporation to the limited liability
21 company owned jointly by British Nuclear Fuels, plc and Morrison-
22 Knudsen Corporation known as MK/BNFL GESCO LLC. The new MOC
23 would be renamed to Westinghouse Government Environmental Services
24 Company LLC (**WGES**). Notification to NMED was made by the permit
25 applicant in a letter dated March 2, 1999. The public hearing on the
26 ~~permit~~ Permit was underway, but the final ~~permit~~ Permit was not yet
27 issued.

28 March 26, 1999 The NMED received official notification of the divestiture of Westinghouse
29 Electric Company by CBS Corporation to MK/BNFL GESCO LLC
30 effective March 22, 1999. The MOC was renamed ~~Westinghouse~~
31 ~~Government Environmental Services Company LLC (WGES)~~ WGES, of
32 which Westinghouse ~~Waste Isolation Division~~ WID was a division. This
33 transaction constituted a change of operational control under 20.4.1.900
34 NMAC (incorporating 40 CFR §270.40). Notification to NMED was made
35 by the permit applicant in a letter dated March 24, 1999. The public
36 hearing on the ~~permit~~ Permit was nearly concluded, but the final ~~permit~~ Permit
37 was not yet issued.

38 April 28, 1999 The NMED received a revised Part A Permit Application in a letter dated
39 April 21, 1999, reflecting that the Westinghouse ~~Waste Isolation~~
40 ~~Division~~ WID, co-operator of the WIPP ~~hazardous waste~~ facility, was now
41 a part of WGES. However, the final ~~permit~~ Permit, issued October 27,
42 1999, did not reflect the change in ownership.

43 July 25, 2000 The NMED received a Class 1 permit modification in a letter dated July
44 21, 2000, changing the name in the Permit from ~~Westinghouse Electric~~

1 ~~Corporation to Westinghouse Government Environmental Services~~
2 ~~Company LLC (WGES) WGES Waste Isolation Division (WID) WID.~~
3 ~~However, t~~This notification did not constitute the required permit
4 modification under 20.4.1.900 NMAC (incorporating 40 CFR §270.40)
5 necessary to reflect the transfer of the permit to a new operator.

6 December 15, 2000 The DOE announced that it had awarded a five-year contract for
7 management and operation of the WIPP facility to Westinghouse TRU
8 Solutions LLC, a limited liability company owned jointly by WGES LLC
9 and Roy F. Weston, Inc. The announcement further stated that, following
10 a brief transition period, the new contractor would assume MOC
11 responsibilities on February 1, 2001. This transaction constituted a
12 change of operational control under 20.4.1.900 NMAC (incorporating 40
13 CFR §270.40) requiring a Class 1 permit modification with prior written
14 approval of NMED.

15 February 5, 2001 The NMED received a Class 1 permit modification in a letter dated
16 February 2, 2001, which notified NMED of an organizational name
17 change of the MOC from ~~Westinghouse Government Environmental~~
18 ~~Services Company LLC Waste Isolation Division~~WGES WID to
19 Westinghouse TRU Solutions LLC. ~~However, t~~This notification did not
20 constitute the required permit modification under 20.4.1.900 NMAC
21 (incorporating 40 CFR §270.40) necessary to reflect the transfer of the
22 permit to a new operator.

23 December 31, 2002 The NMED received a Class 1 permit modification in a letter dated
24 December 27, 2002, which changed the name of the MOC from
25 Westinghouse TRU Solutions LLC to Washington TRU Solutions LLC
26 (WTS). ~~Again, t~~This notification did not constitute the required permit
27 modification under 20.4.1.900 NMAC (incorporating 40 CFR §270.40)
28 necessary to reflect the transfer of the permit to a new operator.

29 February 28, 2003 The NMED received a Class 1 permit modification requiring prior agency
30 approval in a letter dated February 28, 2003, to satisfy the requirements
31 specified in 20.4.1.900 NMAC (incorporating 40 CFR §270.40) to reflect
32 the transfer of the permit to a new operator.

33 September 16, 2004 The NMED received a Class 1 permit modification requiring prior agency
34 approval in a letter dated September 16, 2004, describing a change of
35 ownership of ~~Washington TRU Solutions LLC (WTS) WTS~~. WTS is owned
36 jointly by WGES, managing member, and Weston Solutions, Inc. WGES
37 had been owned jointly by Washington Group International, Inc. (WGI),
38 and BNFL Nuclear Services, Inc. However, WGI has acquired BNFL's
39 prior interest in the former Westinghouse government services
40 businesses, which includes BNFL's prior interest in WGES.

41 August 6, 2007 The NMED received notification in a letter dated August 2, 2007 of the
42 pending acquisition of WGI by URS Corporation at an unknown future
43 date. This acquisition would be related to operational control, because
44 WGI is the sole owner of WGES, managing member of the joint venture,

- 1 along with Weston Solutions, Inc., that owns WTS, the WIPP facility
2 MOC. This notification was submitted to assure compliance with
3 20.4.1.900 NMAC (incorporating 40 CFR §270.40(b)).
- 4 November 26, 2007 The NMED received a Class 1 permit modification requiring prior agency
5 approval in a letter dated November 19, 2007, describing a change of
6 ownership of WTS. On November 15, 2007, WGI was acquired by URS
7 Corporation. WTS is owned jointly by WGES, managing member, and
8 Weston Solutions, Inc. WGES, formerly owned by WGI, is now owned by
9 URS Corporation.
- 10 October 1, 2012 The NMED received a Class 1 permit modification requiring prior agency
11 approval in a letter dated June 25, 2012 describing a change in the MOC
12 for the WIPP facility. The new MOC for the WIPP facility will be Nuclear
13 Waste Partnership LLC. The new MOC is comprised of URS Energy &
14 Construction, Inc. and Babcock and Wilcox Technical Services Group,
15 Inc.
- 16 April 1, 2014 URS announced an organizational realignment to move Global
17 Management and Operational Services Group (GMOS) from URS Energy
18 & Construction to URS Federal Services Division. Nuclear Waste
19 Partnership LLC is part of GMOS and remains in this group. The MOC is
20 comprised of URS Federal Services, Inc. and Babcock and Wilcox
21 Technical Services Group, Inc.
- 22 January 5, 2015 On January 5, 2015 URS merged with AECOM. The ~~WIPP Management~~
23 ~~and Operating Contractor (MOC)~~, Nuclear Waste Partnership LLC,
24 is comprised of URS Energy & Construction, Inc. (an organization within
25 AECOM) and Babcock and Wilcox Technical Services Group, Inc. This
26 merger is therefore not related to a change in operational control because
27 URS Energy & Construction, Inc. continues to be 70% owner of
28 Nuclear Waste Partnership LLC.
- 29 July 1, 2015 On June 8, 2015 the Babcock & Wilcox Company announced its intent to
30 change the name to BWXT Technical Services Group, Inc. (BWXT TSG).
31 This change was effective July 1, 2015. No changes are being made to
32 the ~~Management and Operating Contractor (MOC)~~. The MOC is
33 comprised of URS Energy & Construction, Inc. and BWXT Technical
34 Services Group, Inc.
- 35 September 19, 2016 URS Energy & Construction, Inc. changed its name to AECOM Energy &
36 Construction, Inc. This name change was effective September 19, 2016.
37 No changes are being made to the ~~Management and Operating~~
38 ~~Contractor (MOC)~~. This is a name change only; there was no change in
39 operational control. The MOC, Nuclear Waste partnership LLC, is
40 comprised of AECOM Energy & Construction, Inc. and BWXT Technical
41 Services Group, Inc. This change does not constitute the required permit
42 modification under 20.4.1.900 NMAC (incorporating 40 CFR §270.40)
43 necessary to reflect the transfer of the ~~permit~~Permit to a new operator.

1 January 31, 2020 Lindsay Goldberg/American Securities purchased AECOM's
2 Management Services group, forming a new company named Amentum.
3 Included in that transaction was AECOM Energy & Construction, Inc.,
4 which continues to be the legal guarantor and majority owner of the MOC,
5 Nuclear Waste Partnership LLC. No changes are being made to the
6 MOC. Nuclear Waste Partnership LLC is still comprised of AECOM
7 Energy & Construction, Inc. and BWXT Technical Services Group, Inc.
8 This is a change in ultimate parent company only; there was no change in
9 operational control. Therefore, this change does not constitute the
10 required permit modification under 20.4.1.900 NMAC (incorporating 40
11 CFR §270.40) necessary to reflect the transfer of the permit to a new
12 operator.