FRNP-RPT-0101

Annual Document of Polychlorinated Biphenyls at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, for January 1, 2018–December 31, 2018

FOUR RIVERS NUCLEAR PARTNERSHIP, LLC

This document is approved for public release per review by:

David Hayden — FRNP Classification Support

6-26-19 — Date

FRNP-RPT-0101

Annual Document of Polychlorinated Biphenyls at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, for January 1, 2018–December 31, 2018

Date Issued—June 2019

U.S. DEPARTMENT OF ENERGY
Office of Environmental Management

Prepared by
FOUR RIVERS NUCLEAR PARTNERSHIP, LLC,
Managing the
Deactivation and Remediation Project at the
Paducah Gaseous Diffusion Plant
under Contract No. DE-EM0004895

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CONTENTS

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TABLES

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ACRONYMS

CD	Certificate of Disposal
CFR	*Code of Federal Regulations*
CY	calendar year
DSSI	Diversified Scientific Services, LLC
EPA	U.S. Environmental Protection Agency
IWTS	Integrated Waste Tracking System
PGDP	Paducah Gaseous Diffusion Plant
TSDF	treatment, storage, and disposal facility
UHWM	Uniform Hazardous Waste Manifest

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EXECUTIVE SUMMARY

This Annual Document of Polychlorinated Biphenyls (PCBs) at the Paducah Gaseous Diffusion Plant (PGDP), Paducah, Kentucky, for January 1, 2018–December 31, 2018, (Annual Document) was prepared to meet applicable requirements of the Toxic Substances Control Act, as codified in the *Code of Federal Regulations* at 40 *CFR* Part 761, Subpart J. The mailing address for the U.S. Department of Energy Paducah Gaseous Diffusion Plant is 5501 Hobbs Road, Kevil, Kentucky 42053. The physical address is 5600 Hobbs Road, Kevil, Kentucky 42053. The U.S. Environmental Protection Agency (EPA) Identification Number is KY8-890-008-982. The Annual Document provides records and information required by 40 *CFR* § 761.180(a), Records and Monitoring.

The Annual Records required by 40 *CFR* § 761.180(a)(1) are located in Sections 1–4 and address the signed manifests, certificates of disposal, waste storage area inspections, and spill cleanup activities, respectively. The information for the annual document log, which is required by 40 *CFR* § 761.180(a)(2), is located in Section 1 and Sections 5–7. The annual document log includes the name, address, and EPA identification number of the facility, unique manifest number of every PCB waste manifest generated by the facility during the calendar year (CY) (Section 1), PCB electrical equipment remaining in service at the end of the CY (Section 5), information on PCB waste shipped off-site and stored at the facility (Section 6), and PCB waste shipment receipt log (Section 7). The Appendices contain the PCB waste manifests, PCB waste certificates of disposal, PCB waste storage area inspection records, and PCB waste inventory tables.

The PCB items in service and PCB activities at the PGDP for CY 2018 are summarized below:

PCB transformers in service as of 12/31/2018:	0
Total PCBs in kg in PCB transformers as of 12/31/2018:	0
PCB large capacitors in service as of 12/31/2018:	0
PCB waste in kg[1] generated in CY 2018:	12,956
PCB waste in kg[2] shipped off-site for treatment/disposal in CY 2018:	12,341
PCB waste in kg[3] remaining in storage for disposal as of 12/31/2018:	36,653

Throughout CY 2018, PGDP generated 13 manifested shipments of PCB wastes to off-site treatment/disposal facilities. Fourteen Certificates of Disposal were received in CY 2018 for PCB wastes disposed.

Due to the nature and history of operations at PGDP, all PCB waste is suspected of being radiologically contaminated, and all PCB waste is considered potentially radiologically contaminated until it is certified otherwise. The U.S. Department of Energy has ongoing programs to characterize the radiological contamination of waste so it can be disposed of appropriately. In accordance with 40 *CFR* § 761.65, PCB wastes shall not be stored for more than one year. Radiologically contaminated PCB wastes may be stored beyond the one-year limit as outlined in 40 *CFR* § 761.65(a)(1). Efforts to secure disposal of radioactive PCB waste items exceeding the one-year storage limitation are discussed in the *Annual Compliance Agreement Report for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, January 1 through December 31, 2018*, FRNP-RPT-0091, dated June 2019 in accordance with the *Modification to the*

[1] The weights in kg are taken from the Integrated Waste Tracking System (IWTS), Requests for Disposal, or generator supplied information and may be estimated.
[2] The weights in kg were taken from the Uniform Hazardous Waste Manifests, as shown in Table 1.1, which differs from IWTS weights shown in Table D.4.
[3] See note 1.

February 20, 1992, Compliance Agreement Between the United States Department of Energy and the United States Environmental Protection Agency, Washington, D.C., Toxic Substances Control Act, approved May 30, 2017.

1. PCB WASTE MANIFESTS

Uniform Hazardous Waste Manifests (UHWMs) of polychlorinated biphenyl (PCB) wastes shipped by the facility during the calendar year (CY) are annual records required by 40 *CFR* § 761.180(a)(1)(i). This section of the Annual Document contains the signed manifests of PCB wastes shipped off-site for disposal during CY 2018.

Thirteen manifests with 68 containers of solid and liquid PCB wastes were shipped for disposal. Copies of the UHWMs are located in Appendix A. PCB wastes were shipped to the following disposal sites:

- Energy*Solutions* disposal facility in Clive, UT;
- Diversified Scientific Services, LLC, (DSSI) Perma-Fix facility in Kingston, TN; and
- Clean Harbors Deer Park, LLC facility in LaPorte, TX.

Table 1.1 summarizes the 2018 manifested PCB waste shipments. The table includes the manifest number, the shipment destination, the number of PCB containers/items on the manifest, and the net weight in kilograms of PCBs containers/items shipped. The weights listed in this table were obtained from the UHWMs. The weights of wastes listed on the manifests were calculated based on the weight of the PCB-contaminated waste contents of the shipping container(s) or the estimated volume of the shipment. The weight on the manifest may differ from the weight recorded in the Integrated Waste Tracking System and the PCB and Additional Information attachment to the UHWM. When completing manifest documentation, the Deactivation and Remediation Contractor works with various treatment, storage, and disposal facilities (TSDFs) to facilitate acceptance. On occasion, the manifested weights are adjusted due to factors such as differences in the receiving facility's scale or because the TSDF requires the gross weight to be manifested instead of the net weight; however, the waste database is kept intact to reflect the operating weights while the waste was managed on-site.

Table 1.1 PCB Waste Manifests Summary

UHWM Number	Date Shipped	Shipment Destination	Number of PCB Containers	Weight from UHWM (kg)[2]
006841910JJK	2/20/2018	Energy*Solutions*, Clive, UT	12	543
006841911JJK	2/20/2018	Energy*Solutions*, Clive, UT	4	265
006841920JJK	5/14/2018	DSSI, Inc., Kingston, TN	12	2,130
006841926JJK	5/31/2018	Energy*Solutions*, Clive, UT	1	3
006841935JJK	5/14/2018[1]	Energy*Solutions*, Clive, UT	3	484
006841936JJK	5/14/2018[1]	Energy*Solutions*, Clive, UT	11	1,895
006841943JJK	7/31/2018	Energy*Solutions*, Clive, UT	1	2,858
006841953JJK	8/23/2018	DSSI, Inc., Kingston, TN	2	236
011797542FLE	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	16	3,044
019694504JJK	9/10/2018	Energy*Solutions*, Clive, UT	1	457
019694515JJK	9/20/2018	Energy*Solutions*, Clive, UT	1	157
019694524 JJK	9/26/2018	Energy*Solutions*, Clive, UT	3	78
019694525JJK	9/26/2018	Energy*Solutions*, Clive, UT	1	191
Total UHWM: 13			**68**	**12,341**

[1] Shipment was remanifested from 006841925JJK on 6/28/2018 due to reprofiling of waste.

[2] The weights in kg were taken from the UHWMs which differs from IWTS weights shown in Table D.4.

2. PCB WASTE CERTIFICATES OF DISPOSAL

Certificates of Disposal (CDs) that have been received by the facility during the CY for PCB wastes disposed of are annual records required by 40 *CFR* § 761.180(a)(1)(ii). Fourteen CDs were received in 2018 from the following facilities:

- Energy*Solutions* disposal facility in Clive, Utah;
- Clean Harbors Deer Park, LLC facility in LaPorte, TX;
- DSSI Perma-Fix facility in Kingston, Tennessee; and
- Materials and Energy Corporation facility in Oak Ridge, TN.

Table 2.1 lists the UHWM number, disposal facility, date disposed of, number of PCB containers/items disposed of, and weight in kilograms of PCBs items shipped. The weights listed in the table were obtained from the UHWMs.

The CDs are presented in Appendix B. If the CD received in 2018 was for waste shipped in 2018 (all except UHWM 006841822JJK and 006841867JJK), the manifests are shown in Table 1.1 and Appendix A.

Table 2.1. PCB Waste Certificates of Disposal Summary

UHWM	Earliest Date Removed from Service	Date Shipped	Disposer	Containers Disposed of	Net Weight from UHWM (kg)[4]	Date Disposed of	Date CD Received
006841822JJK	9/15/2016	10/27/2016	DSSI Perma-Fix, Kingston, TN	5	880	12/7/2017	1/3/2018
006841867JJK	3/27/2015	5/18/2017[1]	Energy*Solutions* , Clive, UT	1	1,787	12/7/2017	4/4/2018
006841910JJK	6/3/2015	2/20/2018	Energy*Solutions* , Clive, UT	12	543	9/28/2018	12/6/2018
006841911JJK	3/11/2016	2/20/2018	Energy*Solutions* , Clive, UT	4	265	6/29/2018	12/6/2018
006841920JJK	4/25/2017	5/14/2018	DSSI Perma-Fix, Kingston, TN	12	2,130	11/13/2018	11/20/2018
006841926JJK	6/6/2017	5/31/2018	Energy*Solutions* , Clive, UT	1	3	12/20/2018	12/31/2018
006841935JJK	5/3/2017	5/14/2018[2]	Energy*Solutions* , Clive, UT	3	484	12/20/2018	12/31/2018
006841936JJK	4/25/2017	5/14/2018[2]	Energy*Solutions* , Clive, UT	11	1,895	6/18/2018	7/13/2018
006841943JJK	6/25/2018	7/31/2018	Energy*Solutions* , Clive, UT	1	2,858	10/5/2018	10/31/2018
006843002JJK	11/22/2017	10/12/2017[3]	Materials and Energy Corporation, Oak Ridge, TN	2	1,983	2/15/2018	6/22/2018
006843002JJK	11/22/2017	10/12/2017	Materials and Energy Corporation, Oak Ridge, TN	1	1,065	1/31/2018	7/6/2018
006843002JJK	11/22/2017	10/12/2017	Materials and Energy Corporation, Oak Ridge, TN	5	5,150	1/24/2018	7/6/2018
006843005JJK	11/22/2017	10/12/2017	Materials and Energy Corporation, Oak Ridge, TN	1	1,060	1/24/2018	7/6/2018
006843005JJK	11/22/2017	10/12/2017	Materials and Energy Corporation, Oak Ridge, TN	2	2,015	1/31/2018	7/6/2018
006843006JJK	11/22/2017	10/12/2017	Materials and Energy Corporation, Oak Ridge, TN	1	638	1/31/2018	7/6/2018
006843006JJK	11/22/2017	10/12/2017	Materials and Energy Corporation, Oak Ridge, TN	2	2,020	3/15/2018	7/6/2018
006843007JJK	11/22/2017	10/12/2017	Materials and Energy Corporation, Oak Ridge, TN	1	1,055	1/31/2018	6/22/2018
006843007JJK	11/22/2017	10/12/2017	Materials and Energy Corporation, Oak Ridge, TN	1	172	1/24/2018	7/6/2018
006843007JJK	11/22/2017	10/12/2017	Materials and Energy Corporation, Oak Ridge, TN	1	1,063	1/31/2018	7/6/2018
011797542FLE	8/8/2018	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	16	3,044	10/25/2018	11/8/2018
019694504JJK	9/12/2017	9/10/2018	Energy*Solutions* , Clive, UT	1	457	9/17/2018	10/23/2018
019694515JJK	10/4/2017	9/20/2018	Energy*Solutions* , Clive, UT	1	157	10/5/2018	10/31/2018
			Totals	85	30,725		

[1] Shipment was made without required UHWM. UHWM completed on 5/23/2017.

[2] Shipment was remanifested from 006841925JJK on 6/28/2018 due to reprofiling of waste material.

[3] Manifests were generated on 1/10/2018 resulting from non-U.S. Department of Transportation- regulated wastes that were shipped on 10/12/2017. Upon testing at the TSDF, the TSDF determined the wast was PCB on 11/22/2017.

[4] The weights in kg were taken from the UHWMs, as shown in Table 1.1, which differs from IWTS weights shown in Table 6.4.

3. PCB WASTE STORAGE AREA INSPECTION RECORDS

Records of inspections performed in accordance with 40 *CFR* § 761.65(c)(5) are annual records required by 40 *CFR* § 761.180(a)(1)(iii).

Table 3.1 lists the PCB waste storage areas (i.e., a building or an area within a building) established and/or operated for PCB wastes at Paducah Gaseous Diffusion Plant (PGDP) during CY 2018. Appendix C contains information from the PCB Waste Inspection database and lists the dates of inspection and a "Yes/No" check to indicate if leaks/spills were found.

Table 3.1. PCB Waste Storage Areas at PGDP

Building	Waste Area Designator
C-331	G-331-PCB-01[a]
C-333	G-333-PCB-01[a,b]
C-335	G-335-04[a]
C-337	G-337-02[a]
C-337	G-337-03[a]
C-337	G-337-05[a]
C-337	G-337-PCB-02[a]
C-733	C-733
C-746-Q	C-746-Q
C-752-A	C-752-A
C-753-A	C-753-A
C-757	G-757-03[a]

[a] Waste Area Designators that begin with a "G" indicate a generator staging area, which is a temporary storage area for non-Resource Conservation and Recovery Act, PCB, and/or low-level (radioactive) waste.
[b] G-333-PCB-01 was closed on February 21, 2018.

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4. PCB SPILL CLEANUP RECORDS

Records of cleanup and disposal of any spilled or leaked materials from PCB Items in storage in accordance with 40 *CFR* § 761.65(c)(5) are annual records required by 40 *CFR* § 761.180(a)(1)(iii). Because no spills occurred in PCB storage areas during CY 2018, there are no records.

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5. PCB ELECTRICAL EQUIPMENT IN SERVICE

No PCB (≥ 500 ppm) transformers or PCB (≥ 500 ppm) large capacitors were in service at PGDP as of December 31, 2018, which is summarized in Table 5.1. In addition, no PCB transformers or PCB large capacitors were removed from service in CY 2018. Sixty-seven PCB transformers were removed from service, drained, and flushed during 2015. They were stored in place in C-337 during CY 2018. Residual flushate was removed over time as it drained through and collected in the units.

There are no CY 2018 PCB transformer maintenance records because there was no maintenance performed on these transformers, and the transformers currently are not in service.

Table 5.1. PCB Electrical Equipment in Service as of December 31, 2018

Type	Number in Service	Volume (gal)	PCB (kg)
PCB transformers*	0	0	0
PCB large high-voltage capacitors	0	0	0

*There were 67 PCB transformers that were removed from service, drained, flushed, and stored in place in 2015 pending demolition to remove, because they are locked in place by facility structure members placed after the transformers.

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6. PCB WASTE ACTIVITY

PCB waste activities performed by the facility during the CY 2018 are annual records required by 40 *CFR* § 761.180 (a)(2)(iii). The PCB Waste Activity Summary for CY 2018 is shown in Table 6.1. Detail tables supporting the summary table are located in Appendix D. Throughout the tables, the PCB Date, often referred to as PCB DTS (date to storage), reflects the date PCB waste was first added to a container and is the origin date of the container.

The PCB Waste Inventory for December 31, 2017, has been adjusted from the "PCB Waste Inventory as of December 31, 2017," reported as Table 10.9 of the *Annual Document of Polychlorinated Biphenyls at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, for January 1, 2017–December 31, 2017*, FRNP-RPT-0039. The net changes to the January 1, 2018, beginning inventory include adjustments because of in-process collection containers at the time of 2017 inventory, information received after the 2017 report submittal, and/or weight corrections. The detailed listing of the December 31, 2017, corrections and adjustments is provided in Appendix D, Table D.1.

The detailed listing of PCB waste generated during CY 2018 table is provided in Appendix D, Table D.2.

The detailed listing of the adjustments to the CY 2018 PCB inventory is provided in Appendix D, Table D.3.

The detailed listing of the PCB waste shipped in CY 2018 is provided in Appendix D, Table D.4.

The detailed listing of the PCB waste inventory as of December 31, 2018, is provided in Appendix D, Table D.5.

There was no PCB waste received from off-site facilities in CY 2018.

Table 6.1. PCB Waste Activity Summary for CY 2018

PCB Waste Items In Inventory	12/31/2017 Inventory		Corrections and Adjustments to Beginning Inventory[a]		1/1/2018 Inventory		Generated		Corrections to 2018 Inventory[b]		Shipped for Disposal[g]		12/31/2018 Inventory	
	pc	*kg*	*pc*	*kg*	*pc*	*kg*	*pc*	*kg*			*pc*	*kg*	*pc*	*kg*
ARTICLES	**2**	**32,795**	**0**	**0**	**2**	**32,795**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**32,795**
PCB Transformers (drained)	2	32,795	0	0	2	32,795	0	0	0	0	0	0	2	32,795
ARTICLE CONTAINERS[c]	**10**	**3,764**	**0**	**91**	**10**	**3,855**	**5**	**2,714**	**0**	**0**	**10**	**3,855**	**5**	**2,714**
Large Capacitors	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Light Ballasts	9	2,946	0	91	9	3,036	2	272	0	0	9	3,036	2	272
Misc. Equip. (motors, pumps, etc.)	1	818	0	0	1	818	3	2,442	0	0	1	818	3	2,442
CONTAINERS	**39**	**4,087**	**0**	**278**	**39**	**4,365**	**34**	**10,241**	**-6**	**-2,992**	**58**	**10,471**	**9**	**1,143**
Liquids[d]	15	2,699	1	262	16	2,962	25	6,554	-5	-2,978	31	5,974	5	564
Solids	24	1,388	-1	15	23	1,403	9	3,687	-1	-14	27	4,496	4	579
BULK PCB REMEDIATION WASTE SOLIDS < 49 MG/Kg[e]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL[f]	**51**	**40,645**	**0**	**369**	**51**	**41,014**	**39**	**12,956**	**-6**	**-2,992**	**68**	**14,325**	**16**	**36,653**

pc = piece count; kg = kilogram (rounded to the nearest whole number for the summaries)

[a] The Corrections and Adjustments to Beginning Inventory column includes adjustments because of in-process collection containers at time of 2017 inventory, information received after the 2017 report submittal, characterization waste category adjustments, and/or weight corrections. Weights reported in this summary include the weight of the container (drum/box), except for tanks/tankers.

[b] The Adjustments to 2018 Inventory column includes adjustments due to repackaging of wastes or because of in-process collection containers during time of 2018 inventory. Weights reported in this summary include the weight of the container (drum/box), except for tanks/tankers.

[c] Article Containers are drums or boxes of PCB transformers, PCB large capacitors, electrical equipment, PCB light ballasts, or PCB small capacitors.

[d] Portable (mobile) tanks and totes are counted as Containers.

[e] PCB Remediation Waste Solids disposed at the onsite C-746-U Landfill.

[f] Due to rounding, some of the weight totals may vary by 1 kg.

[g] The weights in kg were taken from IWTS, which differs from the weights taken from Uniform Hazardous Waste Manifests, as shown in Table 1.1.

7. PCB WASTE SHIPMENT RECEIPT LOG

A PCB waste shipment receipt log is required by 40 *CFR* § 761.180(a)(2)(viii). The log is included as Table 7.1. The table is an excerpt from a data file, which includes a record of phone calls or other agreed method to confirm receipt of PCB waste shipments. Information in the log that is not required for this report has been omitted from Table 7.1.

Table 7.1. CY 2018 PCB Waste Shipment Receipt Log

Shipment ID	Actual Ship Date	Shipment Destination	UHWM #	Comments/Notes	Date Manifest Received	Comments for Manifest Inquiries and Requests	TSCA	Confirmation E-mail Received from TSDF
9750-04-0001	2/20/2018	Energy*Solutions*, Clive, UT	006841910JJK	(12) Drums of PCB/LLW	2/28/2018		TSCA (T)	Received e-mail on 2-28-2018 from J. Gardner that shipment was received on 2-23-2018.
9750-05-0001	2/20/2018	Energy*Solutions*, Clive, UT	006841911JJK	(4) Drums of PCB/LLW	2/28/2018		T	Received e-mail on 2-28-2018 from J. Gardner that shipment was received on 2-23-2018.
7340-08-0002	6/28/2018	Energy*Solutions*, Clive, UT	006841936JJK	(1) ST-90 and (10) Drums of PCB/LLW	6/29/2018	On 6-28-2018 Shipment 7340-08-0002 replaces original shipment 7340-08-0001, UHWM 006841925JJK minus three drums.	T	
9750-04-0002	6/28/2018	Energy*Solutions*, Clive, UT	006841935JJK	(3) Drums of PCB/LLW (PCB Leaking Ballasts)	6/19/2018	On 6-28-2018 Shipment 9750-04-0002 replaces original shipment 7340-08-0001, UHWM 006841925JJK for the three drums.	T	Received confirmation e-mail from Tom Wright on 5-18-2018.
DSSI-18-059	5/14/2018	DSSI, Inc., Kingston, TN	006841920JJK	(12) Drums of PCB Waste	5/29/2018		T	Received e-mail from S.J. Snipes on 5-14-2018 that shipment was received on 5-14-2018.
9750-03-0002	5/31/2018	Energy*Solutions*, Clive, UT	006841926JJK	(1) Drum of MLLW/TSCA (Sample Returns)	6/8/2018		RCRA/TSCA (RT)	Received confirmation e-mail from Tom Wright on 6-4-2018.
7340-08-0003	7/31/2018	Energy*Solutions*, Clive, UT	006841943JJK	(1) PCB Oil Transport Tank	8/7/2018		T	Per Regina Pea, a verbal confirmation was obtained for arrival on 8-2-2018.
DSSI-18-104	8/23/2018	DSSI, Inc., Kingston, TN	006841953JJK	(18) Drums of RCRA Waste (Used Oil), (2) Drums of TSCA Waste (Used Oil) and (1) Drum of Non-DOT Regulated Waste (Used Oil)	8/30/2018	Received signed manifest on 8-30-2018, however management codes were not included due to further sampling analysis being conducted. Received UHWM with codes on 10-10-2018.	RT	Received confirmation e-mail from Tibby Snipes for delivery on 8-24-2018.
011797542FLE	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE	(16) Drums of RCRA/TSCA Waste and (1) Drum of Non Regulated DOT Waste	9/21/2018		RT	Confirmation of arrival was requested on 9-11-2018. Per e-mail from Vivian Barche dated 9-17-2018, that as of 9-15-2018 shipment has not reached its final destination and a confirmation would be sent when it does. Received e-mail from Vivian Barche with signed manifest dated 9-20-2018.
9750-01-0001	9/10/2018	Energy*Solutions*, Clive, UT	019694504JJK	(1) ST-90 of TSCA/MLLW with ACM (Pothead and PLC Cable)	9/18/2018		RT	Confirmation from Albert Evans of delivery on 9-14-2018.
7340-08-0004	9/20/2018	Energy*Solutions*, Clive, UT	019694515JJK	(1) Drum of TSCA/LLW	9/28/2018		T	Per an e-mail from LaChelle Telfair, she spoke to Tom Wright via phone on 9-24-2018 and he confirmed they received the shipment.
9750-05-0002	9/26/2018	Energy*Solutions*, Clive, UT	019694524JJK	(3) Drums of TSCA/LLW-Spill Clean Up	10/4/2018		T	Per LaChelle Telfair, Delivery confirmation on 9-28-2018.
9750-04-0003	9/26/2018	Energy*Solutions*, Clive, UT	019694525JJK	(1) Drum of TSCA/LLW-Vent Duct Oil and Water	10/4/2018		T	Per LaChelle Telfair, delivery confirmation on 9-28-2018.

APPENDIX A

PCB WASTE MANIFESTS

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Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
KY 8890008982	2	1-270-441-6211	006841910 JJK

GENERATOR

5. Generator's Name and Mailing Address: Four Rivers Nuclear Partnership, LLC. (FRNP) on behalf of ~~the U.S. Department of Energy~~ RP 7/2/18
5511 Hobbs Road, Kevil, KY 42053
Generator's Phone:

Generator's Site Address (if different than mailing address): FRNP on behalf of the U.S. Department of Energy FRNP
Paducah Gaseous Diffusion Plant,
5511 Hobbs Rd, Kevil, KY 42053

6. Transporter 1 Company Name: RSB LOGISTICS Inc. — U.S. EPA ID Number: WAR000012005

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: EnergySolutions Clive Disposal Site-Treatment Facility
US I-80 Exit 49, Clive, UT 84029
Facility's Phone: 1-435-884-0155 — U.S. EPA ID Number: UTD982598898

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
RQ	UN3077, Environmentally hazardous substances, solid, n.o.s., (PCB), 9, PG III	12	DM	543	K	
	2.					
	3.					
	4.					

RECEIVED FEB 28 2018 Br.

14. Special Handling Instructions and Additional Information: 0348802 Accumulation Start Date: N/A PCB Start Date: 08/03/15
ERG # 171 In the event of an RQ Release, call 1-800-424-8802 If undeliverable, return to generator
See PCB Attachment for Additional Info Shipment ID: 9750-04-0001
See Statement below for additional information. PR08818 RP 7/2/18

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Regina Pea on behalf of ~~DOE~~ FRNP RP 7/2/18 — Signature: Regina Pea — Month: 02 Day: 20 Year: 18

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: David Scott Wade — Signature: David Scott Wade — Month: 02 Day: 20 Year: 18

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Thomas Wright — Signature: — Month: 02 Day: 23 Year: 18

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Four Rivers Nuclear Partnership, LLC (FRNP) and the U.S. Department of Energy (DOE) are co-generators pursuant to a Co-Generator agreement dated September 13, 2017. Under this agreement, FRNP is responsible for performing all Resource Conservation and Recovery Act (RCRA) generator activities on behalf of both FRNP and DOE for all activities under the scope of FRNP's Contract DE-EM0004895, including, but not limited to, characterizing waste, manifesting waste to off-site facilities, packaging and labeling waste for transport, and storing and managing waste, in accordance with RCRA requirements. Transportation hereunder is for DOE and the actual total transportation charges paid are to be reimbursed by the Government pursuant to Contract DE-EM0004895. RP 7/2/18

PCB and Additional Information Attachment, Page 2 of 2

Manifest Number: 006841910 JJK

Shipment ID Number: 9750-04-0001

Shipment Date: 2/20/2018

UHWM Section	RFD	Container / WASTE ID	Barcode	Description	PCB Date to Storage	NET VOLUME (ft3)	GROSS WT (lb)	Gross Wt (Kg)	Net Wt (lb)	Net Wt (Kg)
9b.1	119863	119863-01	PAD16C30778	PCB CONTAMINATED METAL	06/03/15	7.4	341	155	285	129
9b.1	119845	119845-59	PAD16C31103	PCB ABSORBENTS	04/22/16	7.4	78	35	22	10
9b.1	119845	119845-60	PAD16C31104	PCB ABSORBENTS	10/03/16	7.4	95	43	39	18
9b.1	119874	119874-05	PAD17C36201	PCB ABSORBENTS	10/06/15	7.4	249	113	193	88
9b.1	119874	119874-06	PAD17C35996	PCB ABSORBENTS	09/17/15	7.4	249	113	193	88
9b.1	119874	119874-07	PAD17C35999	PCB ABSORBENTS	12/16/15	7.4	129	59	73	33
9b.1	119874	119874-08	PAD17C35987	PCB ABSORBENTS	12/17/15	7.4	180	82	124	56
9b.1	119874	119874-09	PAD17C35997	PCB ABSORBENTS	01/22/16	7.4	177	80	121	55
9b.1	119874	119874-10	PAD17C35995	PCB ABSORBENTS	01/29/16	7.4	128	58	72	33
9b.1	119874	119874-11	PAD17C36000	PCB ABSORBENTS	04/08/16	7.4	90	41	34	15
9b.1	119874	119874-12	PAD17C35998	PCB ABSORBENTS	10/17/16	7.4	68	31	12	5
9b.1	119881	119881-01	PAD17C35789	PCB ABSORBENTS	09/03/15	4	86	39	30	14
		Totals	**12**			**85.4**	**1870**	**849**	**1198**	**543**

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	KY 8880008982	2	1-270-441-6211	006841911 JJK

GENERATOR

5. Generator's Name and Mailing Address: Four Rivers Nuclear Partnership, LLC, (FRNP) on behalf of ~~the U.S. Department of Energy~~ FRNP RP 7/2/18
5511 Hobbs Road, Kevil, KY 42053
Generator's Phone:

Generator's Site Address (if different than mailing address): FRNP ~~on behalf of the U.S. Department of Energy~~ RP 1/2/18
Paducah Gaseous Diffusion Plant,
5511 Hobbs Rd, Kevil, KY 42053

6. Transporter 1 Company Name: RSB LOGISTICS Inc. — U.S. EPA ID Number: WAR000012005

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: EnergySolutions Clive Disposal Site-Treatment Facility
US I-80 Exit 49, Clive, UT 84029
Facility's Phone: 1-435-884-0155 — U.S. EPA ID Number: UTD982598898

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
RQ	UN 2912, Radioactive material, low specific activity (LSA-I), 7, (PCB), Am-241, Np-237, Pu-239, Tc-99, Th-230, Solid/Oxide, 52 MBq, Fissile Excepted	4	DM	265	K	
	2.					
	3.					

RECEIVED FEB 28 2018

Four Rivers Nuclear Partnership, LLC (FRNP) and the U.S. Department of Energy (DOE) are co-generators pursuant to a Co-Generator agreement dated September 13, 2017. Under this agreement, FRNP is responsible for performing all Resource Conservation and Recovery Act (RCRA) generator activities on behalf of both FRNP and DOE for all activities under the scope of FRNP's Contract DE-EM0004895, including, but not limited to, characterizing waste, manifesting waste to off-site facilities, packaging and labeling waste for transport, and storing and managing waste, in accordance with RCRA requirements. Transportation hereunder is for DOE and the actual total transportation charges paid are to be reimbursed by the Government pursuant to Contract DE-EM0004895.

14. Special Handling Instructions and Additional Information: Truck: 3011 Trailer: 25327 TID: 0349802 — see more statement for additional information. RP 7/2/18
Accumulation Start Date: N/A — PCB Start Date: 03/11/18
ERG # 162 In the event of an RQ Release, call 1-800-424-8802
Exclusive Use Shipment, See PCB Attachment for Additional Info PRO 8817
If undeliverable, return to generator
Shipment ID: 9750-05-0001

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Regina Rea on behalf of ~~DOE~~ FRNP RP 7/2/18 — Signature: Regina Rea — Month: 02 Day: 20 Year: 18

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: David Scott Waster — Signature: David Scott Waster — Month: 2 Day: 20 Year: 18

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Thomas Wright — Signature: [signature] — Month: 02 Day: 23 Year: 18

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

PCB and Additional Information Attachment, Page 2 of 2

Manifest Number: 006841911JJK

Shipment ID Number: 9750-05-0001

Shipment Date: 2/20/2018

UHWM Section	RFD	Container / WASTE ID	Barcode	Description	PCB Date to Storage	NET VOLUME (ft3)	GROSS WT (lb)	Gross Wt (Kg)	Net Wt (lbs)	Net Wt (kg)	Maximum Activity MBq
9b.1	120906	120906-01	PAD16C32112	SPILL CLEANUP FROM VENT DUCT TROUGHS FROM C-335	10/18/16	7.4	74	34	18	8	2
9b.1	121053	121053-01	PAD17C35586	PCB BALLASTS, CAPACITORS AND SMALL TRANSFORMERS (COLLECTION)	03/21/17	2	107	49	51	23	5
9b.1	121161	121161-01	PAD17C35919	VENT DUCT SOLIDS	03/11/16	2	106	48	50	23	4
9b.1	121084	121084-01	PAD17C35962	PCB BALLASTS/TRANSFORMERS/CAPACITORS	04/25/17	7	522	237	466	211	41
		Totals	**4**			**18.4**	**809**	**367**	**585**	**265**	**52**

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: KY 8800008882
2. Page 1 of: 2
3. Emergency Response Phone: 1-270-441-6211
4. Manifest Tracking Number: 006841920 JJK

GENERATOR

5. Generator's Name and Mailing Address
Four Rivers Nuclear Partnership, LLC, (FRNP) ~~on behalf of the U.S. Department of Energy~~ 5-2-18
5511 Hobbs Road, Kevil, KY 42053
Generator's Phone:

Generator's Site Address (if different than mailing address)
FRNP ~~on behalf of the U.S. Department of Energy~~ 5-2-18
Paducah Gaseous Diffusion Plant,
5511 Hobbs Rd, Kevil, KY 42053

6. Transporter 1 Company Name: CAST Transportation
U.S. EPA ID Number: COR000005380

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Diversified Scientific Services, Inc. (DSSI)
657 Gallaher Rd, Kingston, TN 37763
1-865-376-8747
Facility's Phone:
U.S. EPA ID Number: TND982108142

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
RQ	1. UN 3082, Environmentally hazardous substance, liquid, n.o.s. (PCB), 9, (PCB), III	12	DM	2130	K	
	2.					
	3.					
	4.					

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MAY 22 2018

Four Rivers Nuclear Partnership, LLC (FRNP) and the U.S. Department of Energy (DOE) are co-generators pursuant to a Co-Generator agreement dated September 13, 2017. Under this agreement, FRNP is responsible for performing all Resource Conservation and Recovery Act (RCRA) generator activities on behalf of both FRNP and DOE for all activities under the scope of FRNP's Contract DE-EM0004895, including, but not limited to, characterizing waste, manifesting waste to off-site facilities, packaging and labeling waste for transport, and storing and managing waste, in accordance with RCRA requirements. Transportation hereunder is for DOE and the actual total transportation charges paid are to be reimbursed by the Government pursuant to Contract DE-EM0004895. 5-2-18

14. Special Handling Instructions and Additional Information
Truck: 1436 Van: 810 TID: 2058574
ERG # 171 In the event of an RQ Release, call 1-800-424-8802
See PCB Attachment for Additional Info
PCB Start Date: 04/25/17
If undeliverable, return to generator
Shipment ID: DSSI-18-059

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] for FRNP ~~on behalf of the U.S. DOE~~ 5-2-18
Signature:
Month: 5 Day: 14 Year: 18

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Robert Wright
Signature:
Month: 5 Day: 14 Year: 18
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Dawn Garrett
Signature:
Month: 05 Day: 14 Year: 18

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

AD-0133-18

DESIGNATED FACILITY TO GENERATOR

PCB and Additional Information Attachment, Page 2 of 2

Manifest Number: 006841920 JJK

Shipment ID Number: DSSI-18-059

Shipment Date: 5/14/2018

UHWM Section	RFD	Container / WASTE ID	Barcode	Description	PCB Date to Storage	NET VOLUME (ft3)	GROSS WT (lb)	Gross Wt (Kg)	NET WT (lb)	Net Wt (Kg)
9b.1	121073	121073-01	PAD17C35952	PCB VENTILATION DUCT OIL AND WATER	04/25/17	7.4	318	144	262	119
9b.1	121075	121075-01	PAD17C35954	PCB VENTILATION DUCT OIL AND WATER	04/25/17	6.35	432	196	376	171
9b.1	121077	121077-01	PAD17C35956	PCB VENTILATION DUCT OIL AND WATER	04/26/17	6.35	453	205	397	180
9b.1	121077	121077-02	PAD17C35971	PCB VENTILATION DUCT OIL AND WATER	05/01/17	6.68	476	216	420	191
9b.1	121077	121077-03	PAD17C35972	PCB VENTILATION DUCT OIL AND WATER	05/01/17	6.28	463	210	407	185
9b.1	121077	121077-04	PAD17C35976	PCB VENTILATION DUCT OIL AND WATER	05/01/17	6.48	456	207	400	181
9b.1	121077	121077-05	PAD17C36027	PCB VENTILATION DUCT OIL AND WATER	05/04/17	6.55	482	219	426	193
9b.1	121079	121079-01	PAD17C35958	PCB VENTILATION DUCT OIL AND WATER	04/25/17	6.55	466	211	410	186
9b.1	121079	121079-02	PAD17C35959	PCB VENTILATION DUCT OIL AND WATER	04/27/17	6.6	480	218	424	192
9b.1	121079	121079-03	PAD17C35960	PCB VENTILATION DUCT OIL AND WATER	07/12/17	5.9	372	169	316	143
9b.1	121079	121079-04	PAD17C35974	PCB VENTILATION DUCT OIL AND WATER	05/09/17	7.4	476	216	420	191
9b.1	121255	121255-01	PAD17C36199	Lube Oil/PCB Rinseate collected in Sight Glasses from Transformer Draining, Post-TSCA Rinse.	08/23/17	6.28	493	224	437	198
		Totals	12			78.82	5367	2434	4695	2130

Equal Employment Opportunity, all provisions of the Executive Order 11246, as amended by Executive Order 11375, and of the rules, regulations, and relevant orders of the Secretary of Labor are incorporated herein.

Please print or type. (Form designed for use on e pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: KY8890008982
2. Page 1 of: 2
3. Emergency Response Phone: ~~1-270-441-6211~~
4. Manifest Tracking Number: 006841926 JJK

5. Generator's Name and Mailing Address: Four Rivers Nuclear Partnership, LLC (FRNP) on behalf of ~~the U.S. Department of Energy~~ LT 6/25/18
5011 Hobbs Road, Kevil, KY 42053
Generator's Phone:

Generator's Site Address (if different than mailing address): FRNP on behalf of the ~~U.S. Department of Energy~~ FRNP LT 6/25/18
Paducah Gaseous Diffusion Plant
5011 Hobbs Road, Kevil, KY 42053

6. Transporter 1 Company Name: RSB LOGISTICS Inc.
U.S. EPA ID Number: WAR000012005

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: EnergySolutions Clive Disposal Site-Treatment Facility
US 1-80 Exit 49, Clive, UT 84029
Facility's Phone: 1-435-884-0155
U.S. EPA ID Number: UTD982598898

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
RQ	1. UN3321, Waste, Radioactive material, low specific activity (LSA-1), 7, Am-241, Pu-239, Th-230, (PCB, D008), 3, MBq, Fissile Excepted	1	DM	3	K	D007 D008
	2.					
	3.					

GENERATOR

LT 6/25/18

Four Rivers Nuclear Partnership, LLC (FRNP) and the U.S. Department of Energy (DOE) are co-generators pursuant to a Co-Generator agreement dated September 13, 2017. Under this agreement, FRNP is responsible for performing all Resource Conservation and Recovery Act (RCRA) generator activities on behalf of both FRNP and DOE for all activities under the scope of FRNP's Contract DE-EM0004895, including, but not limited to, characterizing waste, manifesting waste to off-site facilities, packaging and labeling waste for transport, and storing and managing waste, in accordance with RCRA requirements. Transportation hereunder is for DOE and the actual total transportation charges paid are to be reimbursed by the Government pursuant to Contract DE-EM0004895.

14. Special Handling Instructions and Additional Information
Truck: 50116 Van: 253254 TID: 20585544 Accumulation Start Date: 06/06/17
ERG#162 In the event of an RQ Release, call 1-800-424-8802 PCB start Date: 6/6/17
Exclusive Use Shipment, See Attachment for Additional Info Shipment ID: 9750-03-00002

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: LaChelle Telfair on behalf of ~~the U.S. DOE~~ FRNP
Signature: LaChelle Telfair
Month: 5 Day: 31 Year: 18

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. LT 6/25/18 Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Donald W. Lichtenberg
Signature: Donald W Lichtenberg
Month: 05 Day: 31 Year: 18

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☑ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

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19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Abbot Gunn
Signature:
Month: 6 Day: 4 Year: 18

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Additional Information Attachment, Page 2 of 2

Manifest Number: 006841926 JJK

Shipment ID Number: 9750-03-0002

Shipment Date: 5/31/2018

UHWM Section	RFD	Container / WASTE ID	Barcode	Description	Accumulation Storage Date	PCB Date to Storage	NET VOLUME (ft3)	GROSS WT (lb)	Gross Wt (Kg)	NET WT (lb)	Net Wt (Kg)	Maximum Activity MBq
9b.1	125118	125118-01	PAD17C35837	Sample returns from C-400	06/06/17	06/06/17	0.4	15	7	6 ~~15~~ LT 7-16-18	3 ~~7~~ LT 7-16-18	3
		Totals	1				0.4	15	7	6 ~~15~~ LT 7-16-18	3 ~~7~~ LT 7-16-18	3

Equal Employment Opportunity, all provisions of the Executive Order 11246, as amended by Executive Order 11375, and of the rules, regulations, and relevant orders of the Secretary of Labor are incorporated herein.

LAND DISPOSAL NOTIFICATION AND CERTIFICATION

LT 4/25/18 FRNP

Generator Name: ~~US Department of Energy (Paducah Site)~~ Manifest Doc. No.: 005841926 JJK

Profile No.: 9750-03-0002 State Manifest No.: NA

1. Is this waste a non-wastewater or wastewater? (See 40 CFR 268.2) Check ONE: Non-wastewater ☒ Wastewater ☐
2. Identify ALL USEPA hazardous waste codes that apply to this waste shipment, as defined by 40 CFR 261. For each waste code, identify the corresponding subcategory, or check NONE if the waste code has no subcategory. Spent solvent standards are listed on the following page. If F039, multi-source leachate applies those constituents must be listed and attached by the generator. If D001-D043 requires treatment of the characteristic and meet 268.48 standards, then the underlying hazardous constituent(s) present in the waste must be listed and attached.

1 REF #:	3 US EPA HAZARDOUS WASTE CODE(S):	4 SUBCATEGORY ENTER THE SUBCATEGORY DESCRIPTION. IF NOT APPLICABLE, SIMPLY CHECK NONE. DESCRIPTION:	NONE:	5 HOW MUST THE WASTE BE MANAGED? ENTER LETTER FROM BELOW:
1	D007	Chromium	☐	A
2	D008	Lead	☐	A
3			☐	
4			☐	

To identify F039 or D001-D043 underlying hazardous constituent (s), use the "F039/Underlying Hazardous Constituent Form" provided (Form B1) and check here ☐
If no UHCs are present in the waste upon its initial generation check here: ☐
To list additional USEPA waste code(s) and subcategorie(s), use the supplemental sheet provided (Form A2) and check here: ☐

HOW MUST THE WASTE BE MANAGED? In column 5 above, enter the letter (A, B1, B3, B4, C, D, or E) below that describes how the waste must be managed to comply with the land disposal regulations (40 CFR 268.7). Please understand that if you enter the letter B1, B3, B4, or D, you are making the appropriate certification as provided below. (States authorized by EPA to manage the LDR program may have regulatory citations different from the 40 CFR citations listed below. Where these regulatory citations differ, your certification will be deemed to refer to those state citations instead of the 40 CFR citations.

A. RESTRICTED WASTE REQUIRES TREATMENT
This waste must be treated to the applicable treatment standards set forth in 40 CFR Part 268.40.
☐ For Hazardous Debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 268.45."

B.1 RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards in 40 CFR Part 268.40 without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.3 GOOD FAITH ANALYTICAL CERTIFICATION FOR INCINERATED ORGANICS
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion in units as specified in 268.42 Table 1. I have been unable to detect the nonwastewater organic constituents desplte having used best good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.4 DECHARACTERIZED WASTE REQUIRES TREATMENT FOR UNDERLYING HAZARDOUS CONSTITUENTS
"I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 or 268.49, to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

C. RESTRICTED WASTE SUBJECT TO A VARIANCE
This waste is subject to a national capacity variance, a treatability variance, or a case-by-case extension. Enter the effective date of prohibition in column 5 above.
☐ For hazardous debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 268.45."

D. RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT
"I certify under penalty of law I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR 268 Subpart D. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment."

E. WASTE IS NOT CURRENTLY SUBJECT TO PART 268 RESTRICTIONS
This waste is a newly identified waste that is not currently subject to any 40 CFR Part 268 restrictions.

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature [signature] Title WASTE ENGINEER Date 05/15/2018

Form A1
Page 1 of 2

LAND DISPOSAL NOTIFICATION AND CERTIFICATION (PHASE IV)

If the waste identified on the first page of this form is described by any of the following USEPA hazardous waste codes: F001, F002, F003, F004, F005, and all solvent constituents will not be monitored by the treater, then each constituent MUST be identified below by checking the appropriate box, and this page must accompany the shipment, along with the previous page of this form. If the waste code F039 describes this waste, then the corresponding list of constituents must be attached. If D001-D043 require treatment to 268.48 standards, then the underlying hazardous constituent(s) must also be attached.

SOLVENT WASTE TREATMENT STANDARDS[2]					
F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Treatment Standard[1]		F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Treatment Standard[1]	
	Wastewaters	Nonwastewaters		Wastewaters	Nonwastewaters
Acetone (F003)	0.28	160	Methanol (F003)	5.6	0.75 (TCLP)[3]
Benzene (F005)	0.14	10	Methylene chloride (F001, F002)	0.089	30
n-Butanol (n-butyl alcohol) (F003)	5.6	2.6	Methyl ethyl ketone (F005)	0.28	36
Carbon disulfide (F005)	3.8	4.8 (TCLP)[3]	Methyl isobutyl ketone (F003)	0.14	33
Carbon tetrachloride (F001)	0.057	6.0	Nitrobenzene (F004)	0.068	14
Chlorobenzene (F002)	0.057	6.0	2-Nitropropane (F005)	INCIN or {(WETOX or C HOXD) followed by CARBN}	INCIN
o-Cresol (F004)	0.11	5.6	Pyridine (F005)	0.014	16
Cresol (m- and p- isomers) (F004)	0.77	5.6	Tetrachloroethylene (F001, F002)	0.056	6.0
Cyclohexanone (F003)	0.36	0.75 (TCLP)[3]	Toluene (F005)	0.080	10
o-Dichlorobenzene (F002)	0.088	6.0	1,1,1-Trichloroethane (F001, F002)	0.054	6.0
2-Ethoxyethanol (F005) also called ethylene glycol, monoethyl ether	INCIN or BIODG	INCIN	1,1,2-Trichloroethane (F002)	0.054	6.0
Ethyl acetate (F003)	0.34	33	Trichloroethylene (F001, F002)	0.054	6.0
Ethyl benzene (F003)	0.057	10	Trichloromonofluoromethane (F002)	0.020	30
Ethyl ether (F003)	0.12	160	1,1,2-Trichloro-1,2,2-trifluoroethane (F002)	0.057	30
Isobutanol (Isobutyl Alcohol) (F005)	5.6	170	Xylenes (sum of o-, m-, and p-isomers) (F003)	0.32	30

[1] All spent solvent treatment standards are measured through a total waste analysis (TCA), unless otherwise noted. Wastewater units are mg/l, nonwastewater are mg/kg.

[2] For contaminated soils using the alternative soil treatment standards, the treatment standards for F001-F005 spent solvents must be a 90% reduction of the constituents or less than 10x the standard listed.

[3] These solvents require a TCLP standard with units of mg/l.

SUBCATEGORY REFERENCE

D001:

A. Ignitable characteristic wastes, except for the 40 CFR 261.21(a) (1) High TOC subcategory, that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems.

B. Ignitable characteristic wastes, except for the 40 CFR 261.21(a) (1) High TOC subcategory, that are managed in CWA/CWA-equivalent or Class I SDWA systems.

C. High TOC Ignitable characteristic liquids subcategory based on 40 CFR 261.21(a) (1) – Greater than or equal to 10% total organic carbon.

D002:

D. Corrosive characteristic wastes that are managed in non-CWA/non-CWA-equivalent/non-Class I SDWA systems.

E. Corrosive characteristic wastes that are managed in CWA, CWA-equivalent, or Class I SWDA systems.

F039/UNDERLYING HAZARDOUS CONSTITUENT (UTS) (Phase IV)

Generator Name: ~~US Department of Energy (Paducah Site)~~ PRNP 06425/18 Manifest Doc. No.: 006841926 JJK

Profile No.: 9758-03-0002 State Manifest No.: NA

If D001-D043 requires treatment to the 40 CRF 268.48 standards, then each underlying hazardous constituent (UHC) present in the waste at the point of generation and at a level above the Universal Treatment Standard (UTS) constituent specific standard must be listed. Write the letter (A1, B1, B2, B3, or C that corresponds to the letter on the land disposal form A1) beside each constituent present to properly describe how the constituent(s) must be managed under 40 CFR 268.7. If contaminated soil requires treatment to 40 CFR 268.49 standards, then each UHC in the waste at the point of generation and at a level above 10 times the UTS must be listed. Write the appropriate letter which corresponds to the letter on the LDR form.

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted
Acenaphthylene		0.059	3.4	2-Chloro-1,3-butadiene		0.057	0.28[1]
Acenapthene		0.059	3.4	Chlorodibromomethane		0.057	15
Acetone		0.28	160	Chloroethane		0.27	6.0
Acetonitrile		5.6	38[1]	bis(2-Chloroethoxy)methane		0.036	7.2
Acetophenone		0.010	9.7	bis(2-Chloroethyl)ether		0.033	6.0
2-Acetylaminofluorene		0.059	140	Chloroform		0.046	6.0
Acrolein		0.29	NA	bis(2-Chloroisopropyl)ether		0.055	7.2
Acylamide		19[1]	23[1]	p-Chloro-m-cresol		0.018	14
Acrylonitrile		0.24	84	2-Chloroethyl vinyl ether		0.062[1]	NA[1]
Aldicarb sulfone		0.056[1]	0.28[1]	Chloromethane/Methyl chloride		0.19	30
Aldrin		0.021	0.066	2-Chloronaphthalene		0.055	5.6
4-Aminobiphenyl		0.13	NA	2-Chlorophenol		0.044	5.7
Aniline		0.81	14	3-Chloropropylene		0.036	30
Anthracene		0.059	3.4	Chrysene		0.059	3.4
Aramite		0.36	NA	o-Cresol	A	0.11	5.6
alpha-(BHC)		0.00014	0.066	m-Cresol	A	0.77	5.6
beta-(BHC)		0.00014	0.066	p-Cresol	A	0.77	5.6
delta-(BHC)		0.023	0.066	m-Cumenyl methylcarbamate		0.056[1]	1.4[1]
gamma-(BHC)		0.0017	0.066	Cyclohexanone		0.36	0.75 mg/l[1]
Barban		0.056[1]	1.4[1]	o,p'-DDD		0.023	0.087
Bendiocarb		0.056[1]	1.4[1]	p,p'-DDD		0.023	0.087
Benomyl		0.056[1]	1.4[1]	o,p'-DDE		0.031	0.087
Benzene		0.14	10	p,p'-DDE		0.031	0.087
Benz(a)anthracene		0.059	3.4	o,p'-DDT		0.0039	0.087
Benzal chloride		0.055[1]	6.0[1]	p,p'-DDT		0.0039	0.087
Benzo(b)fluoranthene[3]		0.11	6.8	Dibenz(a,h)anthracene		0.055	8.2
Benzo(k)fluoranthene[3]		0.11	6.8	Dibenz(a,e)pyrene		0.061	NA
Benzo (g,h,i)perylene		0.0055	1.8	1,2-Dibromo-3-chloropropane		0.11	15
Benzo(a)pyrene		0.061	3.4	1,2-Dibromomethane/ Ethylene dibromide		0.028	15
Bromodichloromethane		0.35	15	Dibromomethane		0.11	15
Bromomethane/Methyl Bromide		0.11	15	m-Dichlorobenzene		0.036	6.0
4-Bromophenyl phenyl ether		0.055	15	o-Dichlorobenzene		0.088	6.0
n-Butyl alcohol		5.6	2.6	p-Dichlorobenzene		0.090	6.0
Butylate		0.042[1]	1.4[1]	Dichlorodifluoromethane		0.23	7.2
Butyl benzyl phthalate		0.017	28	1,1-Dichloroethane		0.059	6.0
2-sec-Butyl-4,6-dinitrophenol/Dinoseb		0.066	2.5	1,2-Dichloroethane		0.21	6.0
Carbaryl		0.006[1]	0.14[1]	1,1-Dichloroethylene		0.025	6.0
Carbenzadim		0.056[1]	1.4[1]	trans-1,2-Dichloroethylene		0.054	30
Carbofuran		0.006[1]	0.14[1]	2,4-Dichlorophenol		0.044	14
Carbofuran phenol		0.056[1]	1.4[1]	2.6-Dichlorophenol		0.044	14
Carbon disulfide		3.8	4.8 mg/l TCLP[1]	2,4-Dichlorophenoxyacetic acid/2,4-D		0.72	10
Carbon tetrachloride		0.057	6.0	1,2-Dichloropropane		0.85	18
Carbosulfan		0.028[1]	1.4[1]	cis-1,3-Dichloropropylene		0.036	18
Chlordane (alpha and gamma isomers)		0.0033	0.26	trans-1,3-Dichloropropylene		0.036	18
p-Chloroaniline		0.46	16	Dieldrin		0.017	0.13
Chlorobenzene		0.057	6.0	Diethyl phthalate		0.20	28

Form B1
Page 1 of 3

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted
Chlorobenzilate		0.10	NA	p-Dimethylaminoazobenzene		0.13[1]	NA
2,4-Dimethyl phenol		0.036	14	Methylene chloride		0.089	30
Dimethyl phthalate		0.047	28	Methyl ethyl ketone		0.28	36
Di-n-butyl phthalate		0.057	28	Methyl isobutyl ketone		0.14	33
1,4-Dinitrobenzene		0.32	2.3	Methyl methacrylate		0.14	160
4,6-Dinitro-o-cresol		0.28	160	Methyl methansulfonate		0.018	NA
2,4-Dinitrophenol		0.12	160	Methyl parathion		0.014	4.6
~~2,4-Dinitrotoluene~~		~~0.32~~	~~140~~	~~Metolcarb~~		~~0.056[1]~~	~~1.4[1]~~
2,6-Dinitrotoluene		0.55	28	Mexacarbate		0.056[1]	1.4[1]
Di-n-octyl phthalate		0.017	28	Molinate		0.042[1]	1.4[1]
Di-n-propylnitrosamine		0.40	14	Naphthalene		0.059	5.6
1,4-Dioxane		12.0	170	2-Naphthylamine		0.52	NA
Diphenylamine[3]		0.92	13[1]	o-Nitroaniline		0.27[1]	14[1]
Diphenylnitrosamine[3]		0.92	13[1]	p-Nitroaniline		0.028	28
1,2-Diphenylhydrazine		0.087	NA	Nitrobenzene		0.068	14
Disulfoton		0.017	6.2	5-Nitro-o-toluidine		0.32	28
Dithiocarbamates (total)		0.028	28[1]	o-Nitrophenol		0.028[1]	13[1]
Endosulfan I		0.023	0.066	p-Nitrophenol		0.12	29
Endosulfan II		0.029	0.13	N-Nitrosodiethylamine		0.40	28
Endosulfan sulfate		0.029	0.13	N-Nitrosodimethylamine		0.40	2.3[1]
Endrin		0.0028	0.13	N-Nitroso-di-n-butylamine		0.40	17
Endrin aldehyde		0.025	0.13	N-Nitrosomethylethylamine		0.40	2.3
EPTC		0.042[1]	1.4[1]	N-Nitrosomorpholine		0.40	2.3
Ethyl acetate		0.34	33	N-Nitrosopiperidine		0.013	35
Ethyl benzene		0.057	10	N-Nitrosopyrrolidine		0.013	35
Ethyl cyanide/Propanenitrile		0.24	360	Oxamyl		0.056[1]	0.28[1]
Ethyl ether		0.12	160	Parathion		0.014	4.6
Bis(2-Ethylhexyl)phthalate		0.28	28	Total PCBs (sum of all PCB isomers or all Aroclors)	A	0.10	10
Ethyl methacrylate		0.14	160	Pebulate		0.042[1]	1.4[1]
Ethylene oxide		0.12	NA	Pentachlorobenzene		0.055[1]	10[1]
Famphur		0.017	15	PeCDDs (All Pentachlorodibenzo-p-dioxins)		0.000035	0.001
Fluoranthene		0.068	3.4	PeCDFs(All Pentachlorodibenzofurans)		0.000035	0.001
Fluorene		0.059	3.4	Pentachloroethane		0.055	6.0
Formetanate hydrochloride		0.056[1]	1.4[1]	Pentachloronitrobenzene		0.055	4.8
Heptachlor		0.0012	0.066	Pentachlorophenol		0.089	7.4
Heptachlor epoxide		0.016	0.066	Phenacetin		0.081	16
Hexachlorobenzene		0.055	10	Phenanthrene		0.059	5.6
Hexachlorobutadiene		0.055	5.6	Phenol		0.039	6.2
Hexachlorocyclopentadiene		0.057	2.4	Phorate		0.021	4.6
HxCDDs (All Hexachrorodibenzo-p-dioxins)		0.000063	0.001	Phthalic acid		0.055[1]	28[1]
HxCDFs (All Hexachlorodibenzofurans)		0.000063	0.001	Phthalic anhydride		0.055	28[1]
Hexachloroethane		0.055	30	Physostigmine		0.056[1]	1.4[1]
Hexachloropropylene		0.035	30	Physostigmine salicylate		0.056[1]	1.4[1]
Indeno(1,2,3-c,d)pyrene		0.0055	3.4	Promecarb		0.056[1]	1.4[1]
Iodomethane		0.19	65	Pronamide		0.093	1.5
Isobutyl alcohol		5.6	170	Propham		0.056[1]	1.4[1]
Isodrin		0.021	0.066	Propoxur		0.056[1]	1.4[1]
Isosafrole		0.081	2.6	Prosulfocarb		0.042[1]	1.4[1]
Kepone		0.0011	0.13	Pyrene		0.067	8.2
Methacrylonitrile		0.24	84	Pyridine		0.014	16
Methanol		5.6	0.75 mg/l[1]	Safrole		0.081	22
Methapyrilene		0.081	1.5	Silvex/2,4,5-TP		0.72	7.9
Methiocarb		0.056[1]	1.4[1]	1,2,4,5-Tetrachlorobenzene		0.055	14
Methomyl		0.028[1]	0.14[1]	TCDDs (All Tetrachlorodibenzo-p-dioxins)		0.000063	0.001
Methoxychlor		0.25	0.18	TCDFs (All Tetrachlorodibenzo-furans)		0.000063	0.001
3-Methylcholanthrene		0.0055	15	1,1,1,2-Tetrachloroethane		0.057	6.0
4,4'-Methylene bis(2-chloroaniline)		0.50	30	1,1,2,2-Tetrachloroethane		0.057	6.0

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted
Tetrachloroethylene		0.056	6.0	INORGANIC CONSTITUENTS			
2,3,4,6-Tetrachlorophenol		0.030	7.4	Antimony		1.9	2.1 mg/l TCLP
Thiodicarb		0.0191	1.4[1]	Antimony		1.9	1.15 mg/l TCLP[4]
Thiophanate-methyl		0.0561	1.4[1]	Arsenic		1.4	5.0 mg/l TCLP
Toluene		0.080	10	Barium		1.2	7.6 mg/l TCLP
Toxaphene		0.0095	2.6	Barium		1.2	21 mg/l TCLP[4]
Triallate		0.042[1]	1.4[1]	Beryllium		0.82	0.014 mg/l TCLP
Tribromomethane/Bromoform		0.63	15	Beryllium		0.82	1.22 mg/l TCLP[4]
2,4,6-Tribromophenol		0.035	7.4	Cadmium		0.69	0.19 mg/l TCLP
1,2,4-Trichlorobenzene		0.055	19	Cadmium		0.69	0.11 mg/l TCLP[4]
1,1,1-Trichloroethane		0.054	6.0	Chromium (Total)		2.77	0.86mg/l TCLP
1,1,2-Trichloroethane		0.054	6.0	Chromium (Total)		2.77	0.60 mg/l TCLP[4]
Trichloroethylene		0.054	6.0	Cyanides (Total)		1.2	590
Trichloromonofluoromethane		0.020	30	Cyanides (Amenable)		0.86	30[1]
2,4,5-Trichlorophenol		0.18	7.4	Fluoride		35	NA[4]
2,4,6-Trichlorophenol		0.035	7.4	Lead		0.69	0.37 mg/l
2,4,5-Trichlorophenoxyacetic acid/2,4,5-T		0.72	7.9	Lead		0.69	0.75 mg/l[4] TCLP
1,2,3-Trichloropropane		0.85	30	Mercury (Nonwastewater from Retort)		NA	0.20 mg/l TCLP
1,1,2-Trichloro-1,2,2-trifluoroethane		0.057	30	Mercury (All others)		0.15	0.025 mg/l TCLP
Triethylamine		0.081[1]	1.5[1]	Nickel	A	3.98	5.0 mg/l TCLP
Tris-(2,3-Dibromopropyl)phosphate		0.11	0.10[1]	Nickel		3.98	11 mg/l TCLP[4]
Vernolate		0.042[1]	6.0[1]	Selenium		0.82	0.16 mg/l TCLP
Vinyl chloride		0.27	6.0	Selenium		0.82	5.7 mg/l TCLP[5]
Xylenes – mixed isomers (sum of o-,m-, and p-xylene		0.32	30	Silver		0.43	0.30 mg/l TCLP
				Silver		0.43	0.14 mg/l TCLP[4]
				Sulfide		14	NA[2]
				Thallium		1.4	0.078 mg/l TCLP[1]
				Thallium		1.4	0.20 mg/l TCLP[4]
				Vanadium		4.3[2]	1.6 mg/l TCLP[2]
				Zinc		2.61	4.3 mg/l TCLP[2]

[1] These constituents are only applicable as underlying hazardous constituents. These constituents are not constituents that require treatment in F039 wastes.
[2] Not an underlying hazardous constituent requiring treatment in a D001-D043 waste.
[3] These compounds are regulated by the sum of their concentration instead of as individual constituents.
[4] These constituents are effective in authorized states or states with no LDR program on 8/24/99. These concentrations are effective in all other states upon adoption by the state.
[5] Effective 8/24/98 in unauthorized states or states with no LDR program. Selenium at 5.7 mg/l is not an underlying hazardous constituent in D001-D043 waste. This becomes effective in authorized states upon adoption by the state.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: KY8890008982 | 2. Page 1 of: 2 | 3. Emergency Response Phone: 1-270-441-6241 | 4. Manifest Tracking Number: 006841935 JJK

GENERATOR

5. Generator's Name and Mailing Address: Four Rivers Nuclear Partnership, LLC (FRNP), 554 Hobbs Road, Kevil, Ky 42053
Generator's Phone:

Generator's Site Address (if different than mailing address): FRNP, Paducah Gaseous Diffusion Plant, 5511 Hobbs Rd, Kevil, Ky 42053

6. Transporter 1 Company Name: RSB LOGISTICS Inc. | U.S. EPA ID Number: WAR000012005

7. Transporter 2 Company Name | U.S. EPA ID Number

8. Designated Facility Name and Site Address: Energy Solutions Clive Disposal Site-Treatment Facility, US I-80 Exit 49, Clive, UT 84029 | U.S. EPA ID Number: UTD982598898
Facility's Phone: 1-435-884-0155

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
RQ	1. UN2913, Radioactive material, surface contaminated objects (SCO-II), 7, (PCB), Np-237, Tc-99, Th-230, U-234, solid/oxide, 87 MBq, Fissile Excepted	3	DM	484	K	
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information: ERG #162 Exclusive Use Shipment, See PCB Attachment Truck: 59816 Van: 253273 PCB Start Date: 5/3/17 Shipment ID: 9750-04-0002

Four Rivers Nuclear Partnership, LLC (FRNP) and the U.S. Department of Energy (DOE) are co-generators pursuant to a Co-Generator agreement dated September 19, 2017. Under this agreement, FRNP is responsible for performing all Resource Conservation and Recovery Act (RCRA) generator activities on behalf of both FRNP and DOE for all activities under the scope of FRNP's Contract DE-EM0004895, including, but not limited to, characterizing waste, manifesting waste to off-site facilities, packaging and labeling waste for transport, and storing and managing waste, in accordance with RCRA requirements. Transportation hereunder is for DOE and the actual total transportation charges paid are to be reimbursed by the Government pursuant to Contract DE-EM0004895.

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: LaChelle Telfair on behalf of FRNP | Signature | Month: 10 | Day: 28 | Year: 18

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: See original Carrier Signature on Shipment 7340-03-0001 (06841925 JJK) | Signature | Month | Day | Year

Transporter 2 Printed/Typed Name | Signature: CT 6/29/18 | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

RECEIVED JUN 29 2018

Manifest Reference Number:

18b. Alternate Facility (or Generator) | U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Albert Enns | Signature | Month: 6 | Day: 29 | Year: 18

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

PCB and Additional Information Attachment, Page 2 of 2

Manifest Number: 06841935 JJK

Shipment ID Number: 9750-04-0002

Shipment Date: 5/14/2018

UHWM Section	RFD	Container / WASTE ID	Barcode	Description	PCB Date to Storage	NET VOLUME (ft3)	GROSS WT (lb)	Gross Wt (Kg)	NET WT (lb)	Net Wt (Kg)	Maximum Activity MBq
9b.1	125105	125105-01	PAD17C35211	PCB ballasts (leaking)	05/03/17	6.5	442	200	386	175	31
9b.1	125105	125105-02	PAD17C35212	PCB ballasts (leaking)	05/03/17	7	534	242	478	217	33
9b.1	125105	125105-03	PAD17C35680	PCB ballasts (leaking)	05/15/17	5	260	118	204	93	24
		Totals	**4**			**18.5**	**1236**	**561**	**1068**	**484**	**87**

Equal Employment Opportunity, all provisions of the Executive Order 11246, as amended by Executive Order 11375, and of the rules, regulations, and relevant orders of the Secretary of Labor are incorporated herein.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: Ky 8890008982
2. Page 1 of: 2
3. Emergency Response Phone: 1-270-441-6211
4. Manifest Tracking Number: 006841936 JJK

GENERATOR

5. Generator's Name and Mailing Address: Four Rivers Nuclear Partnership, LLC (FRNP), 5511 Hobbs Road, Kevil, Ky 42053
Generator's Phone:

Generator's Site Address (if different than mailing address): FRNP, Paducah Gaseous Diffusion Plant, 5511 Hobbs Rd, Kevil, Ky 42053

6. Transporter 1 Company Name: RSB LOGISTICS Inc
U.S. EPA ID Number: WAR000012005

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: EnergySolutions Clive Disposal Site-Bulk Waste Facility, US I-80 Exit 49, Clive, UT 84029
Facility's Phone: 1-435-884-0155
U.S. EPA ID Number: UTD982598893

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
RQ	1. UN2913, Radioactive material, surface contaminated objects (SCO-II), 7, (PCB), Np-237, Tc-99, Th-230, U-234, solid/oxide, 469 MBq, Fissile Excepted	1	CM	1400	K	
RQ	2. UN2913, Radioactive material, surface contaminated objects (SCO-II), 7, (PCB), Np-237, Tc-99, Th-230, U-234, solid/oxide, 363 MBq, Fissile Excepted	10	DM	495	K	
	3.					
	4.					

14. Special Handling Instructions and Additional Information: ERG#162 Exclusive Use Shipment, See PCB Attachment Truck: 59814 Van: 253273 PCB Start Date: 4/26/17

Four Rivers Nuclear Partnership, LLC (FRNP) and the U.S. Department of Energy (DOE) are co-generators pursuant to a Co-Generator agreement dated September 13, 2017. Under this agreement, FRNP is responsible for performing all Resource Conservation and Recovery Act (RCRA) generator activities on behalf of both FRNP and DOE for all activities under the scope of FRNP's Contract DE-EM0004895, including, but not limited to, characterizing waste, manifesting waste to off-site facilities, packaging and labeling waste for transport, and storing and managing waste, in accordance with RCRA requirements. Transportation hereunder is for DOE and the actual total transportation charges paid are to be reimbursed by the Government pursuant to Contract DE-EM0004895.

Shipment ID: 7340-08-0002

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: LaChelle Telfair on behalf of FRNP
Signature:
Month: 6 Day: 28 Year: 18

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: See original Carrier Signatures on Shipment 7340-08-0002 (006841936JJK)
Signature:
Month: Day: Year:

Transporter 2 Printed/Typed Name:
Signature: LT 6/29/18
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

RECEIVED JUN 29 2018 BY:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132	H132		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Albert Ewns
Signature:
Month: 6 Day: 29 Year: 18

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

PCB and Additional Information Attachment, Page 2 of 2

Manifest Number: 006841936 JJK

Shipment ID Number: 7340-08-0002

Shipment Date: 5/14/2018

UHWM Section	RFD	Container / WASTE ID	Barcode	Description	PCB Date to Storage	NET VOLUME (ft3)	GROSS WT (lb)	Gross Wt (Kg)	NET WT (lb)	NET Wt (Kg)	Maximum Activity MBq
9b.1	125104	125104-01	PAD17C35649	Light ballasts	05/01/17	90	3802	1725	3087	1400	469
9b.2	121072	121072-01	PAD17C35951	SPILL CLEANUP FROM VENT DUCT TROUGHS	05/11/17	7.4	112	51	56	25	39
9b.2	121074	121074-01	PAD17C35953	SPILL CLEANUP FROM VENT DUCT TROUGHS	05/15/17	7.4	130	59	74	34	39
9b.2	121076	121076-01	PAD17C35955	SPILL CLEANUP FROM VENT DUCT TROUGHS	04/26/17	7.4	290	132	234	106	39
9b.2	121076	121076-02	PAD17C36601	SPILL CLEANUP FROM VENT DUCT TROUGHS	10/19/17	7.4	96	44	40	18	39
9b.2	121078	121078-01	PAD17C35957	VENT DUCT SOLIDS	04/25/17	7.4	114	52	58	26	39
9b.2	121078	121078-02	PAD17C35973	PCB SPILL CLEANUP DEBRIS	10/09/17	7.4	90	41	34	15	39
9b.2	121078	121078-03	PAD17C36606	SPILL CLEANUP DEBRIS	10/12/17	7.4	92	42	36	16	39
9b.2	121078	121078-04	PAD17C36618	SPILL CLEANUP DEBRIS	11/29/17	7.4	104	47	48	22	39
9b.2	121208	121208-01	PAD17C36211	PCB LIGHT BALLASTS/TRANSFORMERS/CAPACITORS	07/10/17	7.4	362	164	306	139	39
9b.2	125127	125127-01	PAD17C36099	Capacitors/ballasts	06/26/17	3	262	119	206	93	16
		Totals	**11**			**159.6**	**5454**	**2474**	**4179**	**1896**	**831**

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
KY 8890008982	2	1-270-441-6211	006841943 JJK

GENERATOR

5. Generator's Name and Mailing Address
Four Rivers Nuclear Partnership, LLC, (FRNP)
on behalf of FRNP
5511 Hobbs Road, Kevil, KY 42053
Generator's Phone:

Generator's Site Address (if different than mailing address)
FRNP on behalf of the FRNP
Paducah Gaseous Diffusion Plant,
5511 Hobbs Rd, Kevil, KY 42053

6. Transporter 1 Company Name: CAST Transportation — U.S. EPA ID Number: COR000005389

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
EnergySolutions Clive Disposal Site-Treatment Facility
US I-80 Exit 49, Clive, UT 84029
Facility's Phone: 1-435-884-0155 — U.S. EPA ID Number: UTD982598898

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
RQ	1. UN 2913, Radioactive material, surface contaminated objects (SCO-I), 7, (PCB), U-234, Solid/Oxide, 65 MBq, Fissile Excepted	1	BA	2858	K	
	2.					
	3.					
	4. Four Rivers Nuclear Partnership, LLC (FRNP) and the U.S. Department of Energy (DOE) are co-generators pursuant to a Co-Generator agreement dated September 13, 2017. Under this agreement, FRNP is responsible for performing all Resource Conservation and Recovery Act (RCRA) generator activities on behalf of both FRNP and DOE for all activities under the scope of FRNP's Contract DE-EM0004895, including, but not limited to, characterizing waste, manifesting waste to off-site facilities, packaging and labeling waste for transport, and storing and managing waste, in accordance with RCRA requirements. Transportation hereunder is for DOE and the actual total transportation charges paid are to be reimbursed by the Government pursuant to Contract DE-EM0004895.					

14. Special Handling Instructions and Additional Information
Truck: 1406 Trailer: OTR63 TID: N/A see Above Statement for additional information. Accumulation Start Date: N/A PCB Start Date: 08/25/18
ERG # 162 In the event of an RQ Release, call 1-800-424-8802 If undeliverable, return to generator
Exclusive Use Shipment, See PCB Attachment for Additional Info PR08945 Shipment ID: 7340-08-0003

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Regina Pea on behalf of FRNP — Signature: Regina Pea — Month 07 Day 31 Year 18

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Bill Clive — Signature: Bill Clive — Month 7 Day 31 Year 18

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Thomas Wright — Signature: — Month 08 Day 02 Year 18

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

RECEIVED
AUG 07 2018

Manifest Number: 006841943 JJK

Shipment ID Number: 7340-08-0003

Shipment Date: 7/31/2018

UHWM Section	RFD	Container / WASTE ID	Barcode	Description	PCB Date to Storage	NET VOLUME (ft3)	GROSS WT (lb)	Gross Wt (Kg)	Maximum Activity MBq
9b.1	121548	121548-01	PAD18C40626	PCB OIL TRANSPORT TANK WITH RESIDUALS	06/25/18	360	6480	2939	65
		Totals	**1**			**360**	**6480**	**2939**	**65**

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
KY 8890008982	3	1-270-441-6211	006841953 JJK

GENERATOR

5. Generator's Name and Mailing Address
Four Rivers Nuclear Partnership, LLC, (FRNP)
on behalf of FRNP
5511 Hobbs Road, Kevil, KY 42053
Generator's Phone:

Generator's Site Address (if different than mailing address)
FRNP on behalf of the FRNP
Paducah Gaseous Diffusion Plant,
5511 Hobbs Rd, Kevil, KY 42053

6. Transporter 1 Company Name: Interstate Ventures, Inc. — U.S. EPA ID Number: TNR000023380

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Diversified Scientific Services, Inc.
857 Gallaher Rd., Kingston, TN 37703
Facility's Phone: 1-435-884-0155
U.S. EPA ID Number: TND982109142

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
RQ	1. NA3082, Hazardous Waste liquid, n.o.s. (Benzene, Tetrachloroethylene), (D018, D039), 9, PG III	6	DM	913	K	D018 D039
RQ	2. NA3082, Hazardous Waste liquid, n.o.s. (Chloroform, Tetrachloroethylene), (D022, D039), 9, PG III	4	DM	556	K	D022 D039
RQ	3. NA3082, Hazardous Waste liquid, n.o.s. (Lead, Tetrachloroethylene), (D008, D039), 9, PG III	3	DM	497	K	D008 D018 D039
RQ	4. NA3082, Hazardous Waste liquid, n.o.s. (Benzene), (D018), 9, PG III	1	DM	37	K	D018

14. Special Handling Instructions and Additional Information
Truck: 338 Trailer: 53002 TID: 2058551 Accumulation Start Date: 08/23/17 PCB Start Date: 09/19/17
ERG # 171 In the event of an RQ Release, call 1-800-424-8802 If undeliverable, return to generator
See PCB Attachment for Additional Info Shipment ID: DSSI-18-104

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Regina Lea — Signature: Regina Lea — Month 8 Day 23 Year 18

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roy Murray — Signature: Roy Murray — Month 8 Day 23 Year 18

Transporter 2 Printed/Typed Name: Alex Sweet — Signature: [signature] — Month 8 Day 24 Year 18

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

RECEIVED AUG 30 2018 BY: AH

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: KENYON MEE — Signature: [signature] — Month 8 Day 24 Year 18

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. **DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)**

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number KY 8890008982	22. Page 2	23. Manifest Tracking Number 006841953 JJK

24. Generator's Name
Four Rivers Nuclear Partnership, LLC, on behalf of FRNP
5511 Hobbs Road, Kevil, KY 42053

25. Transporter ____ Company Name: Interstate Ventures, Inc. U.S. EPA ID Number: TNR000023390

26. Transporter ____ Company Name: U.S. EPA ID Number:

GENERATOR

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
RQ	NA3082, Hazardous Waste liquid, n.o.s. (Lead), (D008), 9, PG III	1	DM	87	K	D008		
RQ	UN3082, Environmentally hazardous substance, liquid, n.o.s. (PCB), 9, PGIII	2	DM	236	K			
RQ	NA3077, Hazardous Waste, solid, n.o.s. (Lead, Tetrachloroethylene), (D008, D039), 9, PG III	2	DM	122	K	D008 D039	D018	D022
	NON DOT REGULATED	2	DM	178	K			

32. Special Handling Instructions and Additional Information
ERG # 171 In the event of an RQ Release, call 1-800-424-8802
See Attachment for Additional Info

If undeliverable, return to generator
Shipment ID: DSSI-18-104

TRANSPORTER

33. Transporter ____ Acknowledgment of Receipt of Materials
Printed/Typed Name: Roy Murray Signature: Roy Murray Month: 8 Day: 23 Year: 18

34. Transporter ____ Acknowledgment of Receipt of Materials
Printed/Typed Name: Alex Sweet Signature: Alex Sweet Month: 8 Day: 24 Year: 18

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

PCB and Additional Information Attachment, Page 3 of 3

Manifest Number: 006841953 JJK

Shipment ID Number: DSSI-18-104

Shipment Date: 8/23/2018

UHWM Section	RFD	Container / WASTE ID	Barcode	Description	PCB Date to Storage	Accumulation Date	NET VOLUME (ft3)	GROSS WT (lb)	Gross Wt (Kg)	NET WT (lb)	NET WT (Kg)
9b.1	121121	121121-03	PAD17C35884	USED COMPRESSOR OIL			4.68	268	122	212	96
9b.1	121162	121162-01	PAD17C35020	USED OIL (GENERATED FROM EQUIPMENT MAINTENANCE)		08/23/17	6.83	414	188	358	162
9b.1	121162	121162-02	PAD17C36033	USED OIL (GENERATED FROM EQUIPMENT MAINTENANCE)		08/23/17	6.28	260	118	204	93
9b.1	121162	121162-03	PAD17C36138	USED OIL (GENERATED FROM EQUIPMENT MAINTENANCE)		08/23/17	7.4	410	186	354	161
9b.1	121241	121241-01	PAD17C36140	Used Oil		08/15/18	6.02	392	178	336	152
9b.1	121241	121241-02	PAD17C36139	Used Oil		08/15/18	6.02	370	168	314	142
9b.1	121241	121241-03	PAD17C36451	Used Oil		08/15/18	7.4	292	132	236	107
9b.1	121241	121241-04	PAD17C36701	Used Oil		08/15/18	7.4	398	181	342	155
9b.1	121292	121292-01	PAD17C35800	Used oil (Non-Maintenance Buildings)			3.7	236	107	180	82
9b.1	121295	121295-01	PAD17C36651	Waste Oil		08/23/17	7.02	419.5	190	364	165
9b.1	121295	121295-02	PAD17C36652	Used Oil		08/23/17	7.22	422	191	366	166
9b.1	121295	121295-03	PAD18C40498	Used Oil		08/30/17	7	422	191	366	166
9b.1	121458	121458-01	PAD18C40451	USED OIL FROM MOBILE EQUIPMENT		03/08/18	7.4	426	193	370	168
9b.1	121458	121458-02	PAD18C40565	USED OIL FROM MOBILE EQUIPMENT		05/07/18	6.68	452	205	396	180
9b.1	121458	121458-03	PAD18C40566	USED OIL FROM MOBILE EQUIPMENT		06/25/18	4.04	384	174	328	149
9b.1	121460	121460-01	PAD18C40460	Used Motor Oil		03/08/18	2	138	63	82	37
9b.1	121461	121461-01	PAD18C40314	USED TRANSFORMER MINERAL OIL		08/15/18	2	204	93	148	67
9b.1	125150	125150-01	PAD17C36417	PCB OIL FROM C-400 ZONE, 16 J-BOX	09/19/17		4.68	318	144	262	119
9b.1	125150	125150-02	PAD17C36155	PCB OIL FROM C-400 ZONE 16, J-BOX	09/20/17		4.81	314	142	258	117
9b.1	121169	121169-03	PAD17C36197	OIL PADS		08/29/17	7.4	130	59	84	38
9b.1	121296	121296-02	PAD17C36248	Used Oil Filters		08/23/17	7.4	242	110	186	84
		Totals	**21**				**123.38**	**6912**	**3135**	**5746**	**2606**

19 Containers (see Attachment for imbers)

Shipment #: DSSI-18-104

LAND DISPOSAL NOTIFICATION AND CERTIFICATION

Generator Name: US Department of Energy (Paducah Site) Manifest Doc. No.: 006841953 JJK

Profile No.: _____ State Manifest No.: N/A

1. Is this waste a non-wastewater or wastewater? (See 40 CFR 268.2) Check ONE: Non-wastewater ☒ Wastewater ☐
2. Identify ALL USEPA hazardous waste codes that apply to this waste shipment, as defined by 40 CFR 261. For each waste code, identify the corresponding subcategory, or check NONE if the waste code has no subcategory. Spent solvent standards are listed on the following page. If F039, multi-source leachate applies those constituents must be listed and attached by the generator. If D001-D043 requires treatment of the characteristic and meet 268.48 standards, then the underlying hazardous constituent(s) present in the waste must be listed and attached.

1. REF #:	3. US EPA HAZARDOUS WASTE CODE(S):	4. SUBCATEGORY: ENTER THE SUBCATEGORY DESCRIPTION. IF NOT APPLICABLE, SIMPLY CHECK NONE. DESCRIPTION:	NONE	5. HOW MUST THE WASTE BE MANAGED? ENTER LETTER FROM BELOW
1	D008	Lead	☒	A
2	D018	Benzene	☒	A
3	D039	Tetrachloroethene	☒	A
4	D022	Chloroform	☒	A

To identify F039 or D001-D043 underlying hazardous constituent (s), use the "F039/Underlying Hazardous Constituent Form" provided (Form B1) and check here ☒
If no UHCs are present in the waste upon its initial generation check here: ☐
To list additional USEPA waste code(s) and subcategorie(s), use the supplemental sheet provided (Form A2) and check here: ☐

HOW MUST THE WASTE BE MANAGED? In column 5 above, enter the letter (A, B1, B3, B4, C, D, or E) below that describes how the waste must be managed to comply with the land disposal regulations (40 CFR 268.7). Please understand that if you enter the letter B1, B3, B4, or D, you are making the appropriate certification as provided below. (States authorized by EPA to manage the LDR program may have regulatory citations different from the 40 CFR citations listed below. Where these regulatory citations differ, your certification will be deemed to refer to those state citations instead of the 40 CFR citations.

A. RESTRICTED WASTE REQUIRES TREATMENT
This waste must be treated to the applicable treatment standards set forth in 40 CFR Part 268.40.
☐ For Hazardous Debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 268.45."

B.1 RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards in 40 CFR Part 268.40 without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.3 GOOD FAITH ANALYTICAL CERTIFICATION FOR INCINERATED ORGANICS
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion in units as specified in 268.42 Table 1. I have been unable to detect the nonwastewater organic constituents despite having used best good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.4 DECHARACTERIZED WASTE REQUIRES TREATMENT FOR UNDERLYING HAZARDOUS CONSTITUENTS
"I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 or 268.49, to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

C. RESTRICTED WASTE SUBJECT TO A VARIANCE
This waste is subject to a national capacity variance, a treatability variance, or a case-by-case extension. Enter the effective date of prohibition in column 5 above.
☐ For hazardous debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 268.45."

D. RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT
"I certify under penalty of law I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR 268 Subpart D. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment."

E. WASTE IS NOT CURRENTLY SUBJECT TO PART 268 RESTRICTIONS
This waste is a newly identified waste that is not currently subject to any 40 CFR Part 268 restrictions.

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature Donni Hahn Title Waste Engineer Date 8/29/18

Form A1
Page 1 of 2

LAND DISPOSAL NOTIFICATION AND CERTIFICATION (PHASE IV)

If the waste identified on the first page of this form is described by any of the following USEPA hazardous waste codes: F001, F002, F003, F004, F005, and all solvent constituents will not be monitored by the treater, then each constituent MUST be identified below by checking the appropriate box, and this page must accompany the shipment, along with the previous page of this form. If the waste code F039 describes this waste, then the corresponding list of constituents must be attached. If D001-D043 require treatment to 268.48 standards, then the underlying hazardous constituent(s) must also be attached.

SOLVENT WASTE TREATMENT STANDARDS[1]					
F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Treatment Standard		F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Treatment Standard	
	Wastewaters	Nonwastewaters		Wastewaters	Nonwastewaters
Acetone (F003)	0.28	160	Methanol (F003)	5.6	0.75 (TCLP)[3]
Benzene (F005)	0.14	10	Methylene chloride (F001, F002)	0.089	30
n-Butanol (n-butyl alcohol) (F003)	5.6	2.6	Methyl ethyl ketone (F005)	0.28	36
Carbon disulfide (F005)	3.8	4.8 (TCLP)[3]	Methyl isobutyl ketone (F003)	0.14	33
Carbon tetrachloride (F001)	0.057	6.0	Nitrobenzene (F004)	0.068	14
Chlorobenzene (F002)	0.057	6.0	2-Nitropropane (F005)	INCIN or {(WETOX or C HOXD) followed by CARBN}	INCIN
o-Cresol (F004)	0.11	5.6	Pyridine (F005)	0.014	16
Cresol (m- and p- isomers) (F004)	0.77	5.6	Tetrachloroethylene (F001, F002)	0.056	6.0
Cyclohexanone (F003)	0.36	0.75 (TCLP)[3]	Toluene (F005)	0.080	10
o-Dichlorobenzene (F002)	0.088	6.0	1,1,1-Trichloroethane (F001, F002)	0.054	6.0
2-Ethoxyethanol (F005) also called ethylene glycol, monoethyl ether	INCIN or BIODG	INCIN	1,1,2-Trichloroethane (F002)	0.054	6.0
Ethyl acetate (F003)	0.34	33	Trichloroethylene (F001, F002)	0.054	6.0
Ethyl benzene (F003)	0.057	10	Trichloromonofluoromethane (F002)	0.020	30
Ethyl ether (F003)	0.12	160	1,1,2-Trichloro-1,2,2-trifluoroethane (F002)	0.057	30
Isobutanol (Isobutyl Alcohol) (F005)	5.6	170	Xylenes (sum of o-, m-, and p-isomers) (F003)	0.32	30

[1] All spent solvent treatment standards are measured through a total waste analysis (TCA), unless otherwise noted. Wastewater units are mg/l, nonwastewater are mg/kg.

[2] For contaminated soils using the alternative soil treatment standards, the treatment standards for F001-F005 spent solvents must be a 90% reduction of the constituents or less than 10x the standard listed.

[3] These solvents require a TCLP standard with units of mg/l.

SUBCATEGORY REFERENCE

D001:

A. Ignitable characteristic wastes, except for the 40 CFR 261.21(a) (1) High TOC subcategory, that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems.

B. Ignitable characteristic wastes, except for the 40 CFR 261.21(a) (1) High TOC subcategory, that are managed in CWA/CWA-equivalent or Class I SDWA systems.

C. High TOC Ignitable characteristic liquids subcategory based on 40 CFR 261.21(a) (1) – Greater than or equal to 10% total organic carbon.

D002:

D. Corrosive characteristic wastes that are managed in non-CWA/non-CWA-equivalent/non-Class I SDWA systems.

E. Corrosive characteristic wastes that are managed in CWA, CWA-equivalent, or Class I SWDA systems.

19 Containers (See Attachment for numbers)

Shipment #: DSSI-18-104

LAND DISPOSAL NOTIFICATION AND CERTIFICATION (PHASE IV)

Generator Name: US Department of Energy (Paducah Site) Manifest Doc. No.: 006841953JJK

Profile No.: _____ State Manifest No.: N/A

This form is a continuation from form A1 for a waste identified by more than five USEPA waste code/subcategory groups. This page by itself IS NOT an acceptable Land Disposal Notification and Certification Form.

Continue (from form A1, Page 1) to identify ALL USEPA hazardous wastes that apply to this waste shipment (as defined by 40 CFR 261). For each waste number, identify the corresponding subcategory (write in the description from 40 CFR 268.40, or check NONE if the waste does not have a subcategory.). Also identify in column 5 how the waste must be managed. Spent solvents are listed on Form A1, Page 2. F039 constituent(s) and underlying hazardous constituent(s) if applicable, must be listed and attached.

REF #	3. US EPA HAZARDOUS WASTE CODE(S)	4. SUBCATEGORY. ENTER THE SUBCATEGORY DESCRIPTION. IF NOT APPLICABLE, SIMPLY CHECK NONE. DESCRIPTION	NONE	5. HOW MUST THE WASTE BE MANAGED? ENTER LETTER FROM FORM A1 PAGE 1
5			☐	
6			☐	
7			☐	
8			☐	
9			☐	
10			☐	
11			☐	
12			☐	
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29			☐	
30			☐	
31			☐	
32			☐	
33			☐	
34			☐	
35			☐	

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature _____

Title Waste Engineer Date 8/20/18

Form A2
Page 1 of 2

19 Containers (See attachment for numbers)

Shipment #: DSSI-18-104

LAND DISPOSAL NOTIFICATION AND CERTIFICATION (PHASE IV)

Generator Name: US Department of Energy (Paducah Site) Manifest Doc. No.: 006841953JJK

Profile No.: State Manifest No.: N/A

This form is a continuation from form A1 for a waste identified by more than five USEPA waste code/subcategory groups. This page by itself IS NOT an acceptable Land Disposal Notification and Certification Form.

Continue (from form A1, Page 1) to identify ALL USEPA hazardous wastes that apply to this waste shipment (as defined by 40 CFR 261). For each waste number, identify the corresponding subcategory (write in the description from 40 CFR 268.40, or check NONE if the waste does not have a subcategory.). Also identify in column 5 how the waste must be managed. Spent solvents are listed on Form A1, Page 2. F039 constituent(s) and underlying hazardous constituent(s) if applicable, must be listed and attached.

REF #	3. US EPA HAZARDOUS WASTE CODE(S)	4. SUBCATEGORY. ENTER THE SUBCATEGORY DESCRIPTION. IF NOT APPLICABLE, SIMPLY CHECK NONE. DESCRIPTION	NONE	5. HOW MUST THE WASTE BE MANAGED? ENTER LETTER FROM FORM A1, PAGE 1
36			☐	
37			☐	
38			☐	
39			☐	
40			☐	
41			☐	
42			☐	
43			☐	
44			☐	
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59			☐	
60			☐	
61			☐	
62			☐	
63			☐	
64			☐	
65			☐	

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature Donna Stehr

Title Waste Engineer Date 8/20/18

Form A2
Page 2 of 2

19 containers (see attachment for numbers)

Shipment #: DSSI-18-104

F039/UNDERLYING HAZARDOUS CONSTITUENT (UTS) (Phase IV)

Generator Name: US Department of Energy (Paducah Site) Manifest Doc. No.: 006841953JJK

Profile No.: State Manifest No.: N/A

If D001-D043 requires treatment to the 40 CRF 268.48 standards, then each underlying hazardous constituent (UHC) present in the waste at the point of generation and at a level above the Universal Treatment Standard (UTS) constituent specific standard must be listed. Write the letter (A1, B1, B2, B3, or C that corresponds to the letter on the land disposal form A1) beside each constituent present to properly describe how the constituent(s) must be managed under 40 CFR 268.7. If contaminated soil requires treatment to 40 CFR 268.49 standards, then each UHC in the waste at the point of generation and at a level above 10 times the UTS must be listed. Write the appropriate letter which corresponds to the letter on the LDR form.

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted
Acenaphthylene		0.059	3.4	2-Chloro-1,3-butadiene		0.057	0.28[1]
Acenapthene		0.059	3.4	Chlorodibromomethane		0.057	15
Acetone		0.28	160	Chloroethane		0.27	6.0
Acetonitrile		5.6	38[1]	bis(2-Chloroethoxy)methane		0.036	7.2
Acetophenone		0.010	9.7	bis(2-Chloroethyl)ether		0.033	6.0
2-Acetylaminofluorene		0.059	140	Chloroform		0.046	6.0
Acrolein		0.29	NA	bis(2-Chloroisopropyl)ether		0.055	7.2
Acylamide		19[1]	23[1]	p-Chloro-m-cresol		0.018	14
Acrylonitrile		0.24	84	2-Chloroethyl vinyl ether		0.062[1]	NA[1]
Aldicarb sulfone		0.056[1]	0.28[1]	Chloromethane/Methyl chloride		0.19	30
Aldrin		0.021	0.066	2-Chloronaphthalene		0.055	5.6
4-Aminobiphenyl		0.13	NA	2-Chlorophenol		0.044	5.7
Aniline		0.81	14	3-Chloropropylene		0.036	30
Anthracene		0.059	3.4	Chrysene		0.059	3.4
Aramite		0.36	NA	o-Cresol		0.11	5.6
alpha-(BHC)		0.00014	0.066	m-Cresol		0.77	5.6
beta-(BHC)		0.00014	0.066	p-Cresol		0.77	5.6
delta-(BHC)		0.023	0.066	m-Cumenyl methylcarbamate		0.056[1]	1.4[1]
gamma-(BHC)		0.0017	0.066	Cyclohexanone		0.36	0.75 mg/l[1]
Barban		0.056[1]	1.4[1]	o,p'-DDD		0.023	0.087
Bendiocarb		0.056[1]	1.4[1]	p,p'-DDD		0.023	0.087
Benomyl		0.056[1]	1.4[1]	o,p'-DDE		0.031	0.087
Benzene	A	0.14	10	p,p'-DDE		0.031	0.087
Benz(a)anthracene		0.059	3.4	o,p'-DDT		0.0039	0.087
Benzal chloride		0.055[1]	6.0[1]	p,p'-DDT		0.0039	0.087
Benzo(b)fluoranthene[3]		0.11	6.8	Dibenz(a,h)anthracene		0.055	8.2
Benzo(k)fluoranthene[3]		0.11	6.8	Dibenz(a,e)pyrene		0.061	NA
Benzo (g,h,i)perylene		0.0055	1.8	1,2-Dibromo-3-chloropropane		0.11	15
Benzo(a)pyrene		0.061	3.4	1,2-Dibromomethane/ Ethylene dibromide		0.028	15
Bromodichloromethane		0.35	15	Dibromomethane		0.11	15
Bromomethane/Methyl Bromide		0.11	15	m-Dichlorobenzene		0.036	6.0
4-Bromophenyl phenyl ether		0.055	15	o-Dichlorobenzene		0.088	6.0
n-Butyl alcohol		5.6	2.6	p-Dichlorobenzene		0.090	6.0
Butylate		0.042[1]	1.4[1]	Dichlorodifluoromethane		0.23	7.2
Butyl benzyl phthalate		0.017	28	1,1-Dichloroethane		0.059	6.0
2-sec-Butyl-4,6-dinitrophenol/Dinoseb		0.066	2.5	1,2-Dichloroethane		0.21	6.0
Carbaryl		0.006[1]	0.14[1]	1,1-Dichloroethylene		0.025	6.0
Carbenzadim		0.056[1]	1.4[1]	trans-1,2-Dichloroethylene		0.054	30
Carbofuran		0.006[1]	0.14[1]	2,4-Dichlorophenol		0.044	14
Carbofuran phenol		0.056[1]	1.4[1]	2.6-Dichlorophenol		0.044	14
Carbon disulfide		3.8	4.8 mg/l TCLP[1]	2,4-Dichlorophenoxyacetic acid/2,4-D		0.72	10
Carbon tetrachloride		0.057	6.0	1,2-Dichloropropane		0.85	18
Carbosulfan		0.028[1]	1.4[1]	cis-1,3-Dichloropropylene		0.036	18
Chlordane (alpha and gamma isomers)		0.0033	0.26	trans-1,3-Dichloropropylene		0.036	18
p-Chloroaniline		0.46	16	Dieldrin		0.017	0.13
Chlorobenzene		0.057	6.0	Diethyl phthalate		0.20	28

Form B1
Page 1 of 3

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted
Chlorobenzilate		0.10	NA	p-Dimethylaminoazobenzene		0.13[1]	NA
2,4-Dimethyl phenol		0.036	14	Methylene chloride		0.089	30
Dimethyl phthalate		0.047	28	Methyl ethyl ketone		0.28	36
Di-n-butyl phthalate		0.057	28	Methyl isobutyl ketone		0.14	33
1,4-Dinitrobenzene		0.32	2.3	Methyl methacrylate		0.14	160
4,6-Dinitro-o-cresol		0.28	160	Methyl methansulfonate		0.018	NA
2,4-Dinitrophenol		0.12	160	Methyl parathion		0.014	4.6
2,4-Dinitrotoluene		0.32	140	Metolcarb		0.056[1]	1.4[1]
2,6-Dinitrotoluene		0.55	28	Mexacarbate		0.056[1]	1.4[1]
Di-n-octyl phthalate		0.017	28	Molinate		0.042[1]	1.4[1]
Di-n-propylnitrosamine		0.40	14	Naphthalene		0.059	5.6
1,4-Dioxane		12.0	170	2-Naphthylamine		0.52	NA
Diphenylamine[3]		0.92	13[1]	o-Nitroaniline		0.27[1]	14[1]
Diphenylnitrosamine[3]		0.92	13[1]	p-Nitroaniline		0.028	28
1,2-Diphenylhydrazine		0.087	NA	Nitrobenzene		0.068	14
Disulfoton		0.017	6.2	5-Nitro-o-toluidine		0.32	28
Dithiocarbamates (total)		0.028	28[1]	o-Nitrophenol		0.028[1]	13[1]
Endosulfan I		0.023	0.066	p-Nitrophenol		0.12	29
Endosulfan II		0.029	0.13	N-Nitrosodiethylamine		0.40	28
Endosulfan sulfate		0.029	0.13	N-Nitrosodimethylamine		0.40	2.3[1]
Endrin		0.0028	0.13	N-Nitroso-di-n-butylamine		0.40	17
Endrin aldehyde		0.025	0.13	N-Nitrosomethylethylamine		0.40	2.3
EPTC		0.042[1]	1.4[1]	N-Nitrosomorpholine		0.40	2.3
Ethyl acetate		0.34	33	N-Nitrosopiperidine		0.013	35
Ethyl benzene		0.057	10	N-Nitrosopyrrolidine		0.013	35
Ethyl cyanide/Propanenitrile		0.24	360	Oxamyl		0.056[1]	0.28[1]
Ethyl ether		0.12	160	Parathion		0.014	4.6
Bis(2-Ethylhexyl)phthalate		0.28	28	Total PCBs (sum of all PCB isomers or all Aroclors)	A	0.10	10
Ethyl methacrylate		0.14	160	Pebulate		0.042[1]	1.4[1]
Ethylene oxide		0.12	NA	Pentachlorobenzene		0.055[1]	10[1]
Famphur		0.017	15	PeCDDs (All Pentachlorodibenzo-p-dioxins)		0.000035	0.001
Fluoranthene		0.068	3L.4	PeCDFs(All Pentachlorodibenzofurans)		0.000035	0.001
Fluorene		0.059	3.4	Pentachloroethane		0.055	6.0
Formetanate hydrochloride		0.056[1]	1.4[1]	Pentachloronitrobenzene		0.055	4.8
Heptachlor		0.0012	0.066	Pentachlorophenol		0.089	7.4
Heptachlor epoxide		0.016	0.066	Phenacetin		0.081	16
Hexachlorobenzene		0.055	10	Phenanthrene		0.059	5.6
Hexachlorobutadiene		0.055	5.6	Phenol		0.039	6.2
Hexachlorocyclopentadiene		0.057	2.4	Phorate		0.021	4.6
HxCDDs (All Hexachrorodibenzo-p-dioxins)		0.000063	0.001	Phthalic acid		0.055[1]	28[1]
HxCDFs (All Hexachlorodibenzofurans)		0.000063	0.001	Phthalic anhydride		0.055	28[1]
Hexachloroethane		0.055	30	Physostigmine		0.056[1]	1.4[1]
Hexachloropropylene		0.035	30	Physostigmine salicylate		0.056[1]	1.4[1]
Indeno(1,2,3-c,d)pyrene		0.0055	3.4	Promecarb		0.056[1]	1.4[1]
Iodomethane		0.19	65	Pronamide		0.093	1.5
Isobutyl alcohol		5.6	170	Propham		0.056[1]	1.4[1]
Isodrin		0.021	0.066	Propoxur		0.056[1]	1.4[1]
Isosafrole		0.081	2.6	Prosulfocarb		0.042[1]	1.4[1]
Kepone		0.0011	0.13	Pyrene		0.067	8.2
Methacrylonitrile		0.24	84	Pyridine		0.014	16
Methanol		5.6	0.75 mg/l[1]	Safrole		0.081	22
Methapyrilene		0.081	1.5	Silvex/2,4,5-TP		0.72	7.9
Methiocarb		0.056[1]	1.4[1]	1,2,4,5-Tetrachlorobenzene		0.055	14
Methomyl		0.028[1]	0.14[1]	TCDDs (All Tetrachlorodibenzo-p-dioxins)		0.000063	0.001
Methoxychlor		0.25	0.18	TCDFs (All Tetrachlorodibenzo-furans)		0.000063	0.001
3-Methylcholanthrene		0.0055	15	1,1,1,2-Tetrachloroethane		0.057	6.0
4,4'-Methylene bis(2-chloroaniline)		0.50	30	1,1,2,2-Tetrachloroethane		0.057	6.0

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted
Tetrachloroethylene		0.056	6.0	INORGANIC CONSTITUENTS			
2,3,4,6-Tetrachlorophenol		0.030	7.4	Antimony		1.9	2.1 mg/l TCLP
Thiodicarb		0.0191	1.4[1]	Antimony		1.9	1.15 mg/l TCLP[4]
Thiophanate-methyl		0.0561	1.4[1]	Arsenic		1.4	5.0 mg/l TCLP
Toluene		0.080	10	Barium		1.2	7.6 mg/l TCLP
Toxaphene		0.0095	2.6	Barium		1.2	21 mg/l TCLP[4]
Triallate		0.042[1]	1.4[1]	Beryllium		0.82	0.014 mg/l TCLP
Tribromomethane/Bromoform		0.63	15	Beryllium		0.82	1.22 mg/l TCLP[4]
2,4,6-Tribromophenol		0.035	7.4	Cadmium		0.69	0.19 mg/l TCLP
1,2,4-Trichlorobenzene		0.055	19	Cadmium	A	0.69	0.11 mg/l TCLP[4]
1,1,1-Trichloroethane		0.054	6.0	Chromium (Total)		2.77	0.86mg/l TCLP
1,1,2-Trichloroethane		0.054	6.0	Chromium (Total)		2.77	0.60 mg/l TCLP[4]
Trichloroethylene		0.054	6.0	Cyanides (Total)		1.2	590
Trichloromonofluoromethane		0.020	30	Cyanides (Amenable)		0.86	30[1]
2,4,5-Trichlorophenol		0.18	7.4	Fluoride		35	NA[4]
2,4,6-Trichlorophenol		0.035	7.4	Lead	A	0.69	0.37 mg/l
2,4,5-Trichlorophenoxyacetic acid/2,4,5-T		0.72	7.9	Lead		0.69	0.75 mg/l[4] TCLP
1,2,3-Trichloropropane		0.85	30	Mercury (Nonwastewater from Retort)		NA	0.20 mg/l TCLP
1,1,2-Trichloro-1,2,2-trifluoroethane		0.057	30	Mercury (All others)		0.15	0.025 mg/l TCLP
Triethylamine		0.081[1]	1.5[1]	Nickel		3.98	5.0 mg/l TCLP
Tris-(2,3-Dibromopropyl)phosphate		0.11	0.10[1]	Nickel		3.98	11 mg/l TCLP[4]
Vernolate		0.042[1]	6.0[1]	Selenium		0.82	0.16 mg/l TCLP
Vinyl chloride		0.27	6.0	Selenium		0.82	5.7 mg/l TCLP[5]
Xylenes – mixed isomers (sum of o-,m-, and p-xylene		0.32	30	Silver		0.43	0.30 mg/l TCLP
				Silver		0.43	0.14 mg/l TCLP[4]
				Sulfide		14	NA[2]
				Thallium		1.4	0.078 mg/l TCLP[1]
				Thallium		1.4	0.20 mg/l TCLP[4]
				Vanadium		4.3[2]	1.6 mg/l TCLP[2]
				Zinc	A	2.61	4.3 mg/l TCLP[2]

[1] These constituents are only applicable as underlying hazardous constituents. These constituents are not constituents that require treatment in F039 wastes.
[2] Not an underlying hazardous constituent requiring treatment in a D001-D043 waste.
[3] These compounds are regulated by the sum of their concentration instead of as individual constituents.
[4] These constituents are effective in authorized states or states with no LDR program on 8/24/99. These concentrations are effective in all other states upon adoption by the state.
[5] Effective 8/24/98 in unauthorized states or states with no LDR program. Selenium at 5.7 mg/l is not an underlying hazardous constituent in D001-D043 waste. This becomes effective in authorized states upon adoption by the state.

RFD Number	WID Number	RCRA	UHC
1. 121121	121121-03		Zn Pb
2. 121162	121162-01	D018 benzene D039 tetrachloroethene	Cd Pb Zn
3. 121162	121162-02	D018 benzene D039 tetrachloroethene	Cd Pb Zn
4. 121162	121162-03	D018 benzene D039 tetrachloroethene	Cd Pb Zn
5. 121241	121241-01	D022 Chloroform D039 tetrachloroethene	Zn
6. 121241	121241-02	D022 Chloroform D039 tetrachloroethene	Zn
7. 121241	121241-03	D022 Chloroform D039 tetrachloroethene	Zn
8. 121241	121241-04	D022 Chloroform D039 tetrachloroethene	Zn
9. 121292	121292-01		Zn
10. 121295	121295-01	D008 Lead D018 Benzene D039 Tetrachloroethene	Cd Zn
11. 121295	121295-02	D008 Lead D018 Benzene D039 Tetrachloroethene	Cd Zn
12. 121295	121295-03	D008 Lead D018 Benzene D039 Tetrachloroethene	Cd Zn
13. 121458	121458-01	D018 Benzene D039 Tetrachloroethene	Pb Zn
14. 121458	121458-02	D018 Benzene D039 Tetrachloroethene	Pb Zn
15. 121458	121458-03	D018 Benzene D039 Tetrachloroethene	Pb Zn
16. 121460	121460-01	D018 Benzene	Zn
17. 121461	121461-01	D008 Lead	Cd Zn
18. 125150	125150-01		Benzene, PCBs
19. 125150	125150-02		Benzene, PCBs

Containers 21169-03, 12/296-02 See Attachment

Shipment #: DSSI-18-104

LAND DISPOSAL NOTIFICATION AND CERTIFICATION

Generator Name: US Department of Energy (Paducah Site) Manifest Doc. No.: 006841953JJK

Profile No.: _____ State Manifest No.: N/A

1. Is this waste a non-wastewater or wastewater? (See 40 CFR 268.2) Check ONE: Non-wastewater ☒ Wastewater ☐
2. Identify ALL USEPA hazardous waste codes that apply to this waste shipment, as defined by 40 CFR 261. For each waste code, identify the corresponding subcategory, or check NONE if the waste code has no subcategory. Spent solvent standards are listed on the following page. If F039, multi-source leachate applies those constituents must be listed and attached by the generator. If D001-D043 requires treatment of the characteristic and meet 268.48 standards, then the underlying hazardous constituent(s) present in the waste must be listed and attached.

REF #	3. US EPA HAZARDOUS WASTE CODE(S)	4. SUBCATEGORY ENTER THE SUBCATEGORY DESCRIPTION. IF NOT APPLICABLE, SIMPLY CHECK NONE.		5. HOW MUST THE WASTE BE MANAGED? ENTER LETTER FROM BELOW
		DESCRIPTION	NONE	
1	D008	Lead	☒	A
2	D018	Benzene	☒	A
3	D039	Tetrachloroethene	☒	A
4	D022	Chloroform	☒	A

To identify F039 or D001-D043 underlying hazardous constituent (s), use the "F039/Underlying Hazardous Constituent Form" provided (Form B1) and check here ☒
If no UHCs are present in the waste upon its initial generation check here: ☐
To list additional USEPA waste code(s) and subcategorie(s), use the supplemental sheet provided (Form A2) and check here: ☐

HOW MUST THE WASTE BE MANAGED? In column 5 above, enter the letter (A, B1, B3, B4, C, D, or E) below that describes how the waste must be managed to comply with the land disposal regulations (40 CFR 268.7). Please understand that if you enter the letter B1, B3, B4, or D, you are making the appropriate certification as provided below. (States authorized by EPA to manage the LDR program may have regulatory citations different from the 40 CFR citations listed below. Where these regulatory citations differ, your certification will be deemed to refer to those state citations instead of the 40 CFR citations.

A. RESTRICTED WASTE REQUIRES TREATMENT
This waste must be treated to the applicable treatment standards set forth in 40 CFR Part 268.40.
☐ For Hazardous Debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 268.45."

B.1 RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards in 40 CFR Part 268.40 without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.3 GOOD FAITH ANALYTICAL CERTIFICATION FOR INCINERATED ORGANICS
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion in units as specified in 268.42 Table 1. I have been unable to detect the nonwastewater organic constituents despite having used best good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.4 DECHARACTERIZED WASTE REQUIRES TREATMENT FOR UNDERLYING HAZARDOUS CONSTITUENTS
"I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 or 268.49, to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

C. RESTRICTED WASTE SUBJECT TO A VARIANCE
This waste is subject to a national capacity variance, a treatability variance, or a case-by-case extension. Enter the effective date of prohibition in column 5 above.
☐ For hazardous debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 268.45."

D. RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT
"I certify under penalty of law I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR 268 Subpart D. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment."

E. WASTE IS NOT CURRENTLY SUBJECT TO PART 268 RESTRICTIONS
This waste is a newly identified waste that is not currently subject to any 40 CFR Part 268 restrictions.

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature Donna Stehr Title Waste Engineer Date 8/23/18

Form A1
Page 1 of 2

LAND DISPOSAL NOTIFICATION AND CERTIFICATION (PHASE IV)

If the waste identified on the first page of this form is described by any of the following USEPA hazardous waste codes: F001, F002, F003, F004, F005, and all solvent constituents will not be monitored by the treater, then each constituent MUST be identified below by checking the appropriate box, and this page must accompany the shipment, along with the previous page of this form. If the waste code F039 describes this waste, then the corresponding list of constituents must be attached. If D001-D043 require treatment to 268.48 standards, then the underlying hazardous constituent(s) must also be attached.

SOLVENT WASTE TREATMENT STANDARDS					
F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Treatment Standard		F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Treatment Standard	
	Wastewaters	Nonwastewaters		Wastewaters	Nonwastewaters
Acetone (F003)	0.28	160	Methanol (F003)	5.6	0.75 (TCLP)[3]
Benzene (F005)	0.14	10	Methylene chloride (F001, F002)	0.089	30
n-Butanol (n-butyl alcohol) (F003)	5.6	2.6	Methyl ethyl ketone (F005)	0.28	36
Carbon disulfide (F005)	3.8	4.8 (TCLP)[3]	Methyl isobutyl ketone (F003)	0.14	33
Carbon tetrachloride (F001)	0.057	6.0	Nitrobenzene (F004)	0.068	14
Chlorobenzene (F002)	0.057	6.0	2-Nitropropane (F005)	INCIN or {(WETOX or C HOXD) followed by CARBN}	INCIN
o-Cresol (F004)	0.11	5.6	Pyridine (F005)	0.014	16
Cresol (m- and p- isomers) (F004)	0.77	5.6	Tetrachloroethylene (F001, F002)	0.056	6.0
Cyclohexanone (F003)	0.36	0.75 (TCLP)[3]	Toluene (F005)	0.080	10
o-Dichlorobenzene (F002)	0.088	6.0	1,1,1-Trichloroethane (F001, F002)	0.054	6.0
2-Ethoxyethanol (F005) also called ethylene glycol, monoethyl ether	INCIN or BIODG	INCIN	1,1,2-Trichloroethane (F002)	0.054	6.0
Ethyl acetate (F003)	0.34	33	Trichloroethylene (F001, F002)	0.054	6.0
Ethyl benzene (F003)	0.057	10	Trichloromonofluoromethane (F002)	0.020	30
Ethyl ether (F003)	0.12	160	1,1,2-Trichloro-1,2,2-trifluoroethane (F002)	0.057	30
Isobutanol (Isobutyl Alcohol) (F005)	5.6	170	Xylenes (sum of o-, m-, and p-isomers) (F003)	0.32	30

[1] All spent solvent treatment standards are measured through a total waste analysis (TCA), unless otherwise noted. Wastewater units are mg/l, nonwastewater are mg/kg.

[2] For contaminated soils using the alternative soil treatment standards, the treatment standards for F001-F005 spent solvents must be a 90% reduction of the constituents or less than 10x the standard listed.

[3] These solvents require a TCLP standard with units of mg/l.

SUBCATEGORY REFERENCE

D001:

A. Ignitable characteristic wastes, except for the 40 CFR 261.21(a) (1) High TOC subcategory, that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems.

B. Ignitable characteristic wastes, except for the 40 CFR 261.21(a) (1) High TOC subcategory, that are managed in CWA/CWA-equivalent or Class I SDWA systems.

C. High TOC Ignitable characteristic liquids subcategory based on 40 CFR 261.21(a) (1) – Greater than or equal to 10% total organic carbon.

D002:

D. Corrosive characteristic wastes that are managed in non-CWA/non-CWA-equivalent/non-Class I SDWA systems.

E. Corrosive characteristic wastes that are managed in CWA, CWA-equivalent, or Class I SWDA systems.

Containers
121169-Q 121296-02
See Attachment

Shipment #: DSSI-18-104

LAND DISPOSAL NOTIFICATION AND CERTIFICATION (PHASE IV)

Generator Name: US Department of Energy (Paducah Site) Manifest Doc. No.: 006841953 JJK

Profile No.: State Manifest No.: N/A

This form is a continuation from form A1 for a waste identified by more than five USEPA waste code/subcategory groups. This page by itself IS NOT an acceptable Land Disposal Notification and Certification Form.

Continue (from form A1, Page 1) to identify ALL USEPA hazardous wastes that apply to this waste shipment (as defined by 40 CFR 261). For each waste number, identify the corresponding subcategory (write in the description from 40 CFR 268.40, or check NONE if the waste does not have a subcategory.). Also identify in column 5 how the waste must be managed. Spent solvents are listed on Form A1, Page 2. F039 constituent(s) and underlying hazardous constituent(s) if applicable, must be listed and attached.

REF #	3. US EPA HAZARDOUS WASTE CODE(S)	4. SUBCATEGORY. ENTER THE SUBCATEGORY DESCRIPTION. IF NOT APPLICABLE, SIMPLY CHECK NONE. DESCRIPTION	NONE	5. HOW MUST THE WASTE BE MANAGED? ENTER LETTER FROM FORM A1, PAGE 1
5			☐	
6			☐	
7			☐	
8			☐	
9			☐	
10			☐	
11			☐	
12			☐	
13			☐	
14			☐	
15			☐	
16			☐	
17			☐	
18			☐	
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20			☐	
21			☐	
22			☐	
23			☐	
24			☐	
25			☐	
26			☐	
27			☐	
28			☐	
29			☐	
30			☐	
31			☐	
32			☐	
33			☐	
34			☐	
35			☐	

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature Donni Atah

Title Waste Engineer Date 8/21/18

Form A2
Page 1 of 2

Containers
121169 3, 121296-02
See Attachment

Shipment #: DSSI-18-104

LAND DISPOSAL NOTIFICATION AND CERTIFICATION (PHASE IV)

Generator Name: US Department of Energy (Paducah Site) Manifest Doc. No.: 006841953JJK

Profile No.: State Manifest No.: N/A

This form is a continuation from form A1 for a waste identified by more than five USEPA waste code/subcategory groups. This page by itself IS NOT an acceptable Land Disposal Notification and Certification Form.

Continue (from form A1, Page 1) to identify ALL USEPA hazardous wastes that apply to this waste shipment (as defined by 40 CFR 261). For each waste number, identify the corresponding subcategory (write in the description from 40 CFR 268.40, or check NONE if the waste does not have a subcategory.). Also identify in column 5 how the waste must be managed. Spent solvents are listed on Form A1, Page 2. F039 constituent(s) and underlying hazardous constituent(s) if applicable, must be listed and attached.

REF #	3. US EPA HAZARDOUS WASTE CODE(S)	4. SUBCATEGORY ENTER THE SUBCATEGORY DESCRIPTION. IF NOT APPLICABLE, SIMPLY CHECK NONE. DESCRIPTION	NONE	5. HOW MUST THE WASTE BE MANAGED? ENTER LETTER FROM FORM A1, PAGE 1
36			☐	
37			☐	
38			☐	
39			☐	
40			☐	
41			☐	
42			☐	
43			☐	
44			☐	
45			☐	
46			☐	
47			☐	
48			☐	
49			☐	
50			☐	
51			☐	
52			☐	
53			☐	
54			☐	
55			☐	
56			☐	
57			☐	
58			☐	
59			☐	
60			☐	
61			☐	
62			☐	
63			☐	
64			☐	
65			☐	

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature Sonia Stahr

Title Waste Engineer Date 8/21/18

Form A2
Page 2 of 2

containers
121165 73 121296-02
See Attachment

Shipment #: DSSI-18-104

F039/UNDERLYING HAZARDOUS CONSTITUENT (UTS) (Phase IV)

Generator Name: US Department of Energy (Paducah Site) Manifest Doc. No.: 006841953JJK

Profile No.: State Manifest No.: N/A

If D001-D043 requires treatment to the 40 CRF 268.48 standards, then each underlying hazardous constituent (UHC) present in the waste at the point of generation and at a level above the Universal Treatment Standard (UTS) constituent specific standard must be listed. Write the letter (A1, B1, B2, B3, or C that corresponds to the letter on the land disposal form A1) beside each constituent present to properly describe how the constituent(s) must be managed under 40 CFR 268.7. If contaminated soil requires treatment to 40 CFR 268.49 standards, then each UHC in the waste at the point of generation and at a level above 10 times the UTS must be listed. Write the appropriate letter which corresponds to the letter on the LDR form.

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted[2]	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted
Acenaphthylene		0.059	3.4	2-Chloro-1,3-butadiene		0.057	0.28[1]
Acenapthene		0.059	3.4	Chlorodibromomethane		0.057	15
Acetone		0.28	160	Chloroethane		0.27	6.0
Acetonitrile		5.6	38[1]	bis(2-Chloroethoxy)methane		0.036	7.2
Acetophenone		0.010	9.7	bis(2-Chloroethyl)ether		0.033	6.0
2-Acetylaminofluorene		0.059	140	Chloroform		0.046	6.0
Acrolein		0.29	NA	bis(2-Chloroisopropyl)ether		0.055	7.2
Acylamide		19[1]	23[1]	p-Chloro-m-cresol		0.018	14
Acrylonitrile		0.24	84	2-Chloroethyl vinyl ether		0.062[1]	NA[1]
Aldicarb sulfone		0.056[1]	0.28[1]	Chloromethane/Methyl chloride		0.19	30
Aldrin		0.021	0.066	2-Chloronaphthalene		0.055	5.6
4-Aminobiphenyl		0.13	NA	2-Chlorophenol		0.044	5.7
Aniline		0.81	14	3-Chloropropylene		0.036	30
Anthracene		0.059	3.4	Chrysene		0.059	3.4
Aramite		0.36	NA	o-Cresol		0.11	5.6
alpha-(BHC)		0.00014	0.066	m-Cresol		0.77	5.6
beta-(BHC)		0.00014	0.066	p-Cresol		0.77	5.6
delta-(BHC)		0.023	0.066	m-Cumenyl methylcarbamate		0.056[1]	1.4[1]
gamma-(BHC)		0.0017	0.066	Cyclohexanone		0.36	0.75 mg/l[1]
Barban		0.056[1]	1.4[1]	o,p'-DDD		0.023	0.087
Bendiocarb		0.056[1]	1.4[1]	p,p'-DDD		0.023	0.087
Benomyl		0.056[1]	1.4[1]	o,p'-DDE		0.031	0.087
Benzene	A	0.14	10	p,p'-DDE		0.031	0.087
Benz(a)anthracene		0.059	3.4	o,p'-DDT		0.0039	0.087
Benzal chloride		0.055[1]	6.0[1]	p,p'-DDT		0.0039	0.087
Benzo(b)fluoranthene[3]		0.11	6.8	Dibenz(a,h)anthracene		0.055	8.2
Benzo(k)fluoranthene[3]		0.11	6.8	Dibenz(a,e)pyrene		0.061	NA
Benzo (g,h,i)perylene		0.0055	1.8	1,2-Dibromo-3-chloropropane		0.11	15
Benzo(a)pyrene		0.061	3.4	1,2-Dibromomethane/ Ethylene dibromide		0.028	15
Bromodichloromethane		0.35	15	Dibromomethane		0.11	15
Bromomethane/Methyl Bromide		0.11	15	m-Dichlorobenzene		0.036	6.0
4-Bromophenyl phenyl ether		0.055	15	o-Dichlorobenzene		0.088	6.0
n-Butyl alcohol		5.6	2.6	p-Dichlorobenzene		0.090	6.0
Butylate		0.042[1]	1.4[1]	Dichlorodifluoromethane		0.23	7.2
Butyl benzyl phthalate		0.017	28	1,1-Dichloroethane		0.059	6.0
2-sec-Butyl-4,6-dinitrophenol/Dinoseb		0.066	2.5	1,2-Dichloroethane		0.21	6.0
Carbaryl		0.006[1]	0.14[1]	1,1-Dichloroethylene		0.025	6.0
Carbenzadim		0.056[1]	1.4[1]	trans-1,2-Dichloroethylene		0.054	30
Carbofuran		0.006[1]	0.14[1]	2,4-Dichlorophenol		0.044	14
Carbofuran phenol		0.056[1]	1.4[1]	2,6-Dichlorophenol		0.044	14
Carbon disulfide		3.8	4.8 mg/l TCLP[1]	2,4-Dichlorophenoxyacetic acid/2,4-D		0.72	10
Carbon tetrachloride		0.057	6.0	1,2-Dichloropropane		0.85	18
Carbosulfan		0.028[1]	1.4[1]	cis-1,3-Dichloropropylene		0.036	18
Chlordane (alpha and gamma isomers)		0.0033	0.26	trans-1,3-Dichloropropylene		0.036	18
p-Chloroaniline		0.46	16	Dieldrin		0.017	0.13
Chlorobenzene		0.057	6.0	Diethyl phthalate		0.20	28

Form B1
Page 1 of 3

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted
Chlorobenzilate		0.10	NA	p-Dimethylaminoazobenzene		0.13[1]	NA
2,4-Dimethyl phenol		0.036	14	Methylene chloride		0.089	30
Dimethyl phthalate		0.047	28	Methyl ethyl ketone		0.28	36
Di-n-butyl phthalate		0.057	28	Methyl isobutyl ketone		0.14	33
1,4-Dinitrobenzene		0.32	2.3	Methyl methacrylate		0.14	160
4,6-Dinitro-o-cresol		0.28	160	Methyl methansulfonate		0.018	NA
2,4-Dinitrophenol		0.12	160	Methyl parathion		0.014	4.6
2,4-Dinitrotoluene		0.32	140	Metolcarb		0.056[1]	1.4[1]
2,6-Dinitrotoluene		0.55	28	Mexacarbate		0.056[1]	1.4[1]
Di-n-octyl phthalate		0.017	28	Molinate		0.042[1]	1.4[1]
Di-n-propylnitrosamine		0.40	14	Naphthalene		0.059	5.6
1,4-Dioxane		12.0	170	2-Naphthylamine		0.52	NA
Diphenylamine[3]		0.92	13[1]	o-Nitroaniline		0.27[1]	14[1]
Diphenylnitrosamine[3]		0.92	13[1]	p-Nitroaniline		0.028	28
1,2-Diphenylhydrazine		0.087	NA	Nitrobenzene		0.068	14
Disulfoton		0.017	6.2	5-Nitro-o-toluidine		0.32	28
Dithiocarbamates (total)		0.028	28[1]	o-Nitrophenol		0.028[1]	13[1]
Endosulfan I		0.023	0.066	p-Nitrophenol		0.12	29
Endosulfan II		0.029	0.13	N-Nitrosodiethylamine		0.40	28
Endosulfan sulfate		0.029	0.13	N-Nitrosodimethylamine		0.40	2.3[1]
Endrin		0.0028	0.13	N-Nitroso-di-n-butylamine		0.40	17
Endrin aldehyde		0.025	0.13	N-Nitrosomethylethylamine		0.40	2.3
EPTC		0.042[1]	1.4[1]	N-Nitrosomorpholine		0.40	2.3
Ethyl acetate		0.34	33	N-Nitrosopiperidine		0.013	35
Ethyl benzene		0.057	10	N-Nitrosopyrrolidine		0.013	35
Ethyl cyanide/Propanenitrile		0.24	360	Oxamyl		0.056[1]	0.28[1]
Ethyl ether		0.12	160	Parathion		0.014	4.6
Bis(2-Ethylhexyl)phthalate		0.28	28	Total PCBs (sum of all PCB isomers or all Aroclors)	A	0.10	10
Ethyl methacrylate		0.14	160	Pebulate		0.042[1]	1.4[1]
Ethylene oxide		0.12	NA	Pentachlorobenzene		0.055[1]	10[1]
Famphur		0.017	15	PeCDDs (All Pentachlorodibenzo-p-dioxins)		0.000035	0.001
Fluoranthene		0.068	3L.4	PeCDFs(All Pentachlorodibenzofurans)		0.000035	0.001
Fluorene		0.059	3.4	Pentachloroethane		0.055	6.0
Formetanate hydrochloride		0.056[1]	1.4[1]	Pentachloronitrobenzene		0.055	4.8
Heptachlor		0.0012	0.066	Pentachlorophenol		0.089	7.4
Heptachlor epoxide		0.016	0.066	Phenacetin		0.081	16
Hexachlorobenzene		0.055	10	Phenanthrene		0.059	5.6
Hexachlorobutadiene		0.055	5.6	Phenol		0.039	6.2
Hexachlorocyclopentadiene		0.057	2.4	Phorate		0.021	4.6
HxCDDs (All Hexachrorodibenzo-p-dioxins)		0.000063	0.001	Phthalic acid		0.055[1]	28[1]
HxCDFs (All Hexachlorodibenzofurans)		0.000063	0.001	Phthalic anhydride		0.055	28[1]
Hexachloroethane		0.055	30	Physostigmine		0.056[1]	1.4[1]
Hexachloropropylene		0.035	30	Physostigmine salicylate		0.056[1]	1.4[1]
Indeno(1,2,3-c,d)pyrene		0.0055	3.4	Promecarb		0.056[1]	1.4[1]
Iodomethane		0.19	65	Pronamide		0.093	1.5
Isobutyl alcohol		5.6	170	Propham		0.056[1]	1.4[1]
Isodrin		0.021	0.066	Propoxur		0.056[1]	1.4[1]
Isosafrole		0.081	2.6	Prosulfocarb		0.042[1]	1.4[1]
Kepone		0.0011	0.13	Pyrene		0.067	8.2
Methacrylonitrile		0.24	84	Pyridine		0.014	16
Methanol		5.6	0.75 mg/l[1]	Safrole		0.081	22
Methapyrilene		0.081	1.5	Silvex/2,4,5-TP		0.72	7.9
Methiocarb		0.056[1]	1.4[1]	1,2,4,5-Tetrachlorobenzene		0.055	14
Methomyl		0.028[1]	0.14[1]	TCDDs (All Tetrachlorodibenzo-p-dioxins)		0.000063	0.001
Methoxychlor		0.25	0.18	TCDFs (All Tetrachlorodibenzo-furans)		0.000063	0.001
3-Methylcholanthrene		0.0055	15	1,1,1,2-Tetrachloroethane		0.057	6.0
4,4'-Methylene bis(2-chloroaniline)		0.50	30	1,1,2,2-Tetrachloroethane		0.057	6.0

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted
Tetrachloroethylene		0.056	6.0	INORGANIC CONSTITUENTS			
2,3,4,6-Tetrachlorophenol		0.030	7.4	Antimony		1.9	2.1 mg/l TCLP
Thiodicarb		0.0191	1.4[1]	Antimony		1.9	1.15 mg/l TCLP[4]
Thiophanate-methyl		0.0561	1.4[1]	Arsenic		1.4	5.0 mg/l TCLP
Toluene		0.080	10	Barium		1.2	7.6 mg/l TCLP
Toxaphene		0.0095	2.6	Barium		1.2	21 mg/l TCLP[4]
Triallate		0.042[1]	1.4[1]	Beryllium		0.82	0.014 mg/l TCLP
Tribromomethane/Bromoform		0.63	15	Beryllium		0.82	1.22 mg/l TCLP[4]
2,4,6-Tribromophenol		0.035	7.4	Cadmium		0.69	0.19 mg/l TCLP
1,2,4-Trichlorobenzene		0.055	19	Cadmium	A	0.69	0.11 mg/l TCLP[4]
1,1,1-Trichloroethane		0.054	6.0	Chromium (Total)		2.77	0.86mg/l TCLP
1,1,2-Trichloroethane		0.054	6.0	Chromium (Total)		2.77	0.60 mg/l TCLP[4]
Trichloroethylene		0.054	6.0	Cyanides (Total)		1.2	590
Trichloromonofluoromethane		0.020	30	Cyanides (Amenable)		0.86	30[1]
2,4,5-Trichlorophenol		0.18	7.4	Fluoride		35	NA[4]
2,4,6-Trichlorophenol		0.035	7.4	Lead	A	0.69	0.37 mg/l
2,4,5-Trichlorophenoxyacetic acid/2,4,5-T		0.72	7.9	Lead		0.69	0.75 mg/l[4] TCLP
1,2,3-Trichloropropane		0.85	30	Mercury (Nonwastewater from Retort)		NA	0.20 mg/l TCLP
1,1,2-Trichloro-1,2,2-trifluoroethane		0.057	30	Mercury (All others)		0.15	0.025 mg/l TCLP
Triethylamine		0.081[1]	1.5[1]	Nickel		3.98	5.0 mg/l TCLP
Tris-(2,3-Dibromopropyl)phosphate		0.11	0.10[1]	Nickel		3.98	11 mg/l TCLP[4]
Vernolate		0.042[1]	6.0[1]	Selenium		0.82	0.16 mg/l TCLP
Vinyl chloride		0.27	6.0	Selenium		0.82	5.7 mg/l TCLP[5]
Xylenes – mixed isomers (sum of o-,m-, and p-xylene		0.32	30	Silver		0.43	0.30 mg/l TCLP
				Silver		0.43	0.14 mg/l TCLP[4]
				Sulfide		14	NA[2]
				Thallium		1.4	0.078 mg/l TCLP[1]
				Thallium		1.4	0.20 mg/l TCLP[4]
				Vanadium		4.3[2]	1.6 mg/l TCLP[2]
				Zinc	A	2.61	4.3 mg/l TCLP[2]

[1] These constituents are only applicable as underlying hazardous constituents. These constituents are not constituents that require treatment in F039 wastes.
[2] Not an underlying hazardous constituent requiring treatment in a D001-D043 waste.
[3] These compounds are regulated by the sum of their concentration instead of as individual constituents.
[4] These constituents are effective in authorized states or states with no LDR program on 8/24/99. These concentrations are effective in all other states upon adoption by the state.
[5] Effective 8/24/98 in unauthorized states or states with no LDR program. Selenium at 5.7 mg/l is not an underlying hazardous constituent in D001-D043 waste. This becomes effective in authorized states upon adoption by the state.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: KY 8890008982
2. Page 1 of: 3
3. Emergency Response Phone: 1-270-441-6211
4. Manifest Tracking Number: 006841953 JJK

GENERATOR

5. Generator's Name and Mailing Address
Four Rivers Nuclear Partnership, LLC, (FRNP)
on behalf of FRNP
5511 Hobbs Road, Kevil, KY 42053
Generator's Phone:

Generator's Site Address (if different than mailing address)
FRNP on behalf of the FRNP
Paducah Gaseous Diffusion Plant,
5511 Hobbs Rd, Kevil, KY 42053

6. Transporter 1 Company Name: Interstate Ventures, Inc.
U.S. EPA ID Number: TNR000023390

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Diversified Scientific Services, Inc.
857 Gallaher Rd., Kingston, TN 37703
Facility's Phone: 1-435-884-0155
U.S. EPA ID Number: TND982108142

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
RQ	1. NA3082, Hazardous Waste liquid, n.o.s. (Benzene, Tetrachloroethylene), (D018, D039), 9, PG III	6	DM	913	K	~~D018~~ ~~D039~~
RQ	2. NA3082, Hazardous Waste liquid, n.o.s. (Chloroform, Tetrachloroethylene), (D022, D039), 9, PG III	4	DM	566	K	~~D022~~ ~~D039~~
RQ	3. NA3082, Hazardous Waste liquid, n.o.s. (Lead, Tetrachloroethylene), (D008, D039), 9, PG III	3	DM	497	K	~~D008~~ ~~D018~~ ~~D039~~
RQ	4. NA3082, Hazardous Waste liquid, n.o.s. (Benzene), (D018), 9, PG III	1	DM	37	K	~~D018~~

14. Special Handling Instructions and Additional Information
Truck: 336 Trailer: 53002 TID: 2058551 Accumulation Start Date: 08/23/17 PCB Start Date: 09/19/17
ERG # 171 In the event of an RQ Release, call 1-800-424-8802 If undeliverable, return to generator
See PCB Attachment for Additional Info Shipment ID: DSSI 18 104

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Regina Rea
Signature: Regina Rea
Month: 8 Day: 23 Year: 18

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Roy Murray
Signature:
Month: 8 Day: 23 Year: 18

Transporter 2 Printed/Typed Name: Alex Sweet
Signature:
Month: 8 Day: 24 Year: 18

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

RECEIVED OCT 10 2018

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H050	H050	H050	H050

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Kenyon Mee
Signature:
Month: 8 Day: 24 Year: 18

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. AD-0208-18 A-40 DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: KY 8890008982

22. Page: 2

23. Manifest Tracking Number: 006841953 JJK

24. Generator's Name
Four Rivers Nuclear Partnership, LLC, on behalf of FRNP
5511 Hobbs Road, Kevil, KY 42053

25. Transporter _____ Company Name: Interstate Ventures, Inc. U.S. EPA ID Number: TNR000023390

26. Transporter _____ Company Name: U.S. EPA ID Number:

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
RQ	NA3082, Hazardous Waste liquid, n.o.s. (Lead), (D008), 9, PG III	1	DM	67	K	D008		
RQ	UN3082, Environmentally hazardous substance, liquid, n.o.s. (PCB), 9, PGIII	2	DM	235	K			
RQ	NA3077, Hazardous Waste, solid, n.o.s. (Lead, Tetrachloroethylene), (D008, D039), 9, PG III	2	DM	122	K	D008	D018	D022
						D039		
	NON DOT REGULATED	2	DM	178	K			

32. Special Handling Instructions and Additional Information
ERG # 171 In the event of an RQ Release, call 1-800-424-8802
See Attachment for Additional Info
If undeliverable, return to generator
Shipment ID: DSSI-18-104

GENERATOR

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name: Roy Murray Signature: Month 8 Day 23 Year 18

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name: Alex Swyatt Signature: Month 8 Day 24 Year 18

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
H050 | H050 | H110 | H050

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete. AD-0208-18

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) DG 1804460049 SC PPW 7/12/2018 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: KY8890008982
2. Page 1 of 12
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 011797542 FLE

5. Generator's Name and Mailing Address:
Four Rivers Nuclear Partnership, LLC
5511 Hobbs Road
Kevil, KY 42053
Generator's Phone: (270) 441-6698

Generator's Site Address (if different than mailing address): SAME

6. Transporter 1 Company Name: Clean Harbors Environmental Services, Inc. — U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name: Nejer INC — U.S. EPA ID Number: IND184968408

8. Designated Facility Name and Site Address:
Clean Harbors Deer Park, LLC
2027 Independence Parkway South
La Porte, TX 77571
Facility's Phone: (281) 930-2300
U.S. EPA ID Number: TXD055141378

9a HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
RQ	1. ~~RQ~~, UN3082, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S., (PCB'S, LEAD), 9, PG III ~~(LLB)~~ (PCB, D008) 9/7/18	16	DM	3044 ~~5800~~ EB	~~K~~ P	D008 D018 D022 D039 OUTS2917 HEB
	2. Non Regulated per DOT	1	DM	356	P	OUTS 3191 EB
	3.					

Four Rivers Nuclear Partnership, LLC (FRNP) and the U.S. Department of Energy (DOE) are co-generators pursuant to a Co-Generator agreement dated September 13, 2017. Under this agreement, FRNP is responsible for performing all Resource Conservation and Recovery Act (RCRA) generator activities on behalf of both FRNP and DOE for all activities under the scope of FRNP's Contract DE-EM0004895, including, but not limited to, characterizing waste, manifesting waste to off-site facilities, packaging and labeling waste for transport, and storing and managing waste, in accordance with RCRA requirements. Transportation hereunder is for DOE and the actual total transportation charges paid are to be reimbursed by the Government pursuant to Contract DE-EM0004895.

14. Special Handling Instructions and Additional Information
1. CH1030668 ERG#171 16X55 Truck 6280 Accumulation Start Date: 8/22/18
2. CH1709976 1X55 Van 6070 PCB Start Date: 8/8/18
PSS: (270) 441-6211 Shipment ID: 011797542FLE

Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: LaChelle Telfair on behalf of FRNP — Signature: [signature] — Month 9 Day 7 Year 18

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: ____
Transporter signature (for exports only): ____ Date leaving U.S.: ____

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Robert Hurtt — Signature: [signature] — Month 9 Day 7 Year 18
Transporter 2 Printed/Typed Name: Renell Simmons — Signature: [signature] — Month 9 Day 18 Year 18

18. Discrepancy
18a. Discrepancy Indication Space ☑ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Per LaChelle Telfair line 1 Quantity and TWC# changed, line 2 TWC# Added 10-4-18 EB
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

RECEIVED OCT 04 2018 BY: ____

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) AH corrected copy per email
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: [signature] — Signature: [signature] — Month 09 Day 20 Year 18

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: KY889008992 | 22. Page: 2b | 23. Manifest Tracking Number: 011975421 LE

24. Generator's Name: Four Rivers Nuclear Partnership, LLC

25. Transporter 3 Company Name: Clean Harbors Env. Serv., Inc. | U.S. EPA ID Number: MAD039322250

26. Transporter ____ Company Name | U.S. EPA ID Number

27a HM	27b U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes

TPD

32. Special Handling Instructions and Additional Information

GENERATOR

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name: JK | Signature: JK | Month: 8 | Day: 19 | Year: 18

34. Transporter ____ Acknowledgment of Receipt of Materials
Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05). Previous editions are obsolete

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

PCB and Additional Information Attachment, Page 2 of 2

Manifest Number: 011797542 FLE

Shipment ID Number: 011797542 FLE

Shipment Date: 9/7/2018

UHWM Section	RFD	Container / WASTE ID	Description	PCB Date to Storage	Accumulation Storage Date	WASTE VOLUME (ft3)	GROSS WT (lb)	GROSS WT (Kg)	NET WT (lb)	NET WT (Kg)
9b.1	121603	121603-04	PCB Transformer Oil	8/8/2018	08/27/18	7	434	197	378	171
9b.1	121603	121603-05	PCB Transformer Oil	8/8/2018	08/27/18	7	444	201	388	176
9b.1	121603	121603-06	PCB Transformer Oil	8/8/2018	08/27/18	7	450	204	394	179
9b.1	121603	121603-07	PCB Transformer Oil	8/8/2018	08/27/18	7	444	201	388	176
9b.1	121603	121603-08	PCB Transformer Oil	8/8/2018	08/27/18	7	434	197	378	171
9b.1	121603	121603-09	PCB Transformer Oil	8/8/2018	08/27/18	7	426	193	370	168
9b.1	121603	121603-10	PCB Transformer Oil	8/8/2018	08/27/18	7	440	200	384	174
9b.1	121603	121603-11	PCB Transformer Oil	8/8/2018	08/27/18	7	432	196	376	171
9b.1	121603	121603-12	PCB Transformer Oil	8/8/2018	08/27/18	7	442	200	386	175
9b.1	121603	121603-13	PCB Transformer Oil	8/8/2018	08/27/18	7	436	198	380	172
9b.1	121603	121603-14	PCB Transformer Oil	8/8/2018	08/27/18	7	416	189	360	163
9b.1	121603	121603-15	PCB Transformer Oil	8/8/2018	08/27/18	7	430	195	374	170
9b.1	121603	121603-16	PCB Transformer Oil	8/8/2018	08/27/18	7	440	200	384	174
9b.1	121603	121603-17	PCB Transformer Oil	8/8/2018	08/27/18	7	426	193	370	168
9b.1	121603	121603-18	PCB Transformer Oil	8/8/2018	08/27/18	7	424	192	368	167
9b.1	121603	121603-19	PCB Transformer Oil	8/8/2018	08/27/18	7	178	81	122	55
9b.2	120928	120928-01	Faulted Transformer	NA	NA	10	356	161	276	125
			Totals:			122	7052	3199	6076	2756

Equal Employment Opportunity, all provisions of the Executive Order 11246, as amended by Executive Order 11375, and of the rules, regulations, and relevant orders of the Secretary of Labor are incorporated herein.

Hugen, Alisa

From: Telfair, Chelle
Sent: Thursday, October 04, 2018 10:47 AM
To: 'Barche, Vivian E'; Cranford, Nathan Ryan
Cc: Fralix,Tim; Stahr, Sonia; Hugen, Alisa
Subject: RE: PCB confirmation of arrival

Perfect. Thank you. Path forward any PCBs headed to TX will be documented in KG.
Thank you for checking for us.
Chelle

From: Barche, Vivian E [mailto:Barche.VivianE@cleanharbors.com]
Sent: Thursday, October 04, 2018 10:24 AM
To: Telfair, Chelle; Cranford, Nathan Ryan
Cc: Fralix,Tim; Stahr, Sonia; Hugen, Alisa
Subject: RE: PCB confirmation of arrival

A-45

Good Morning Chelle,

Thank you for the manifest correction approval. El is correcting it now. We will continue to want the weight of most waste to be in pounds for any future shipments. We only have a requirement for PCB drums to be weighed as Kilograms per the State of Texas. I apologize for the confusion.

Safety Starts with Me: Live It 3-6-5

Vivian Barche
Customer Service Representative
Clean Harbors
(o) 615.643.3182
(c) 615.571.2349
barche.viviane@cleanharbors.com
www.cleanharbors.com

From: Telfair, Chelle <Chelle.Telfair@pad.pppo.gov>
Sent: Thursday, October 4, 2018 9:52 AM
To: Barche, Vivian E <Barche.VivianE@cleanharbors.com>; Cranford, Nathan Ryan <cranfordr@cleanharbors.com>
Cc: Fralix,Tim <Tim.Fralix@pad.pppo.gov>; Stahr, Sonia <Sonia.Stahr@pad.pppo.gov>; Hugen, Alisa <Alisa.Hugen@pad.pppo.gov>
Subject: RE: PCB confirmation of arrival

Please make corrections to manifest 011797542FLE.

But please note that these original OUTS codes were designated by Clean Harbors. Also, some consistencies for UHMW weights would be appreciated. Clean Harbors, for years, has been the only company we work with that has always wanted the weight to be in pounds, not kilograms. Except for this time, the facility wants kilograms (which is actually a UHWM requirement).

Could we get direction on how Clean Harbors would like weight documented for future shipments please? We just like to be consistent and have as few as possible line through, initial & date changes.

Thank you.
Chelle

A-46

From: Barche, Vivian E [mailto:Barche.VivianE@cleanharbors.com]
Sent: Thursday, October 04, 2018 9:35 AM
To: Hugen, Alisa; Cranford, Nathan Ryan
Cc: Telfair, Chelle; Fralix,Tim; Stahr, Sonia
Subject: RE: PCB confirmation of arrival

Good Morning,
My apologies. The El Dorado facility just reached out to me about manifest # 011797542FLE. They are requesting permission to change:
Line 1 from 5800pd to 3044k
Line 1 TWC # Outs2971 should read OUTS297H
Line 2 is not carrying TWC # OUTS3191
I believe once we have permission to make changes to the manifest, we will be able to pull the COD shortly after.
Do we have permission to make the correction to the manifest?
Thanks for your help.

Safety Starts with Me: Live It 3-6-5

Vivian Barche
Customer Service Representative
Clean Harbors

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: KY8890008982
2. Page 1 of: 2
3. Emergency Response Phone: 1-270-441-6214
4. Manifest Tracking Number: 019694504 JJK

5. Generator's Name and Mailing Address
Four Rivers Nuclear Partnership, LLC (FRNP)
5511 Hobbs Road, Kevil, Ky 42053
Generator's Phone:

Generator's Site Address (if different than mailing address)
FRNP
Paducah Gaseous Diffusion Plant
5511 Hobbs Rd, Kevil, Ky 42053

6. Transporter 1 Company Name: CAST Transportation
U.S. EPA ID Number: COR 000005389

7. Transporter 2 Company Name
U.S. EPA ID Number: ~~UTD982598898~~ LT 9/10/18

8. Designated Facility Name and Site Address
EnergySolutions Clive Disposal Site-Waste Treatment Facility, Interstate 80, Exit 49 Clive, UT 84029
Facility's Phone: 1-435-884-0155
U.S. EPA ID Number: UTD982598898

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
RQ	1. UN2912, Waste, Radioactive material, low specific activity (LSA-I), 7, (Asbestos, RQ), Np-237, Pu-238, Tc-99, U-234, solid/oxide, 184MBq, fissile Excepted	1	CM	457	K	D008		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
Truck: 1417 Van: 510 TID: 2058511 RQ Start Date: 9/12/17 Accumulation Start Date: 9/12/17
ERG #162 In the event of an RQ Release, call 1-800-424-8802 If undeliverable, return to generator
Exclusive Use Shipment, See PCB Attachment for Additional Info Shipment ID: 9758-01-gac

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

GENERATOR
Generator's/Offeror's Printed/Typed Name: LaChelle Telfair on behalf of the FRNP
Signature:
Month: 9 Day: 10 Year: 18

INT'L
16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: James V. Hinch
Signature:
Month: 9 Day: 10 Year: 18
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

RECEIVED SEP 18 2018

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Albert Sims
Signature:
Month: 9 Day: 13 Year: 18

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

PCB and Additional Information Attachment, Page 2 of 2

Manifest Number: 019694504 JJK

Shipment ID Number: 9750-01-0001

Shipment Date: 9/10/2018

UHWM Section	RFD	Container / WASTE ID	Barcode	Description	PCB Start Date	Accumulation Storage Date	NET VOLUME (ft3)	GROSS WT (lb)	Gross Wt (Kg)	NET WT (lb)	NET Wt (Kg)	Maximum Activity MBq
9b.1	121272	121272-01	PAD17C36454	Pothead and PLC Cable	9/12/17	09/12/17	60	1804	818	1008	457	184
		Totals	**1**				**60**	**1804**	**818**	**1008**	**457**	**184**

121272-01

LAND DISPOSAL NOTIFICATION AND CERTIFICATION

Generator Name: FRNP ~~US Department of Energy (Paducah Site)~~ 9-7-18 Manifest Doc. No.: 019694504 JJK

Profile No.: 9758-01-0001 State Manifest No.: NA

1. Is this waste a non-wastewater or wastewater? (See 40 CFR 268.2) Check ONE: Non-wastewater ☒ Wastewater ☐
2. Identify ALL USEPA hazardous waste codes that apply to this waste shipment, as defined by 40 CFR 261. For each waste code, identify the corresponding subcategory, or check NONE if the waste code has no subcategory. Spent solvent standards are listed on the following page. If F039, multi-source leachate applies those constituents must be listed and attached by the generator. If D001-D043 requires treatment of the characteristic and meet 268.48 standards, then the underlying hazardous constituent(s) present in the waste must be listed and attached.

REF #	3. US EPA HAZARDOUS WASTE CODE(S)	4. SUBCATEGORY ENTER THE SUBCATEGORY DESCRIPTION. IF NOT APPLICABLE, SIMPLY CHECK NONE.		5. HOW MUST THE WASTE BE MANAGED? ENTER LETTER FROM BELOW
		DESCRIPTION	NONE	
1	D008	LEAD	☒	A
2			☐	
3			☐	
4			☐	

To identify F039 or D001-D043 underlying hazardous constituent (s), use the "F039/Underlying Hazardous Constituent Form" provided (Form B1) and check here ☒
If no UHCs are present in the waste upon its initial generation check here: ☐
To list additional USEPA waste code(s) and subcategorie(s), use the supplemental sheet provided (Form A2) and check here: ☐

HOW MUST THE WASTE BE MANAGED? In column 5 above, enter the letter (A, B1, B3, B4, C, D, or E) below that describes how the waste must be managed to comply with the land disposal regulations (40 CFR 268.7). Please understand that if you enter the letter B1, B3, B4, or D, you are making the appropriate certification as provided below. (States authorized by EPA to manage the LDR program may have regulatory citations different from the 40 CFR citations listed below. Where these regulatory citations differ, your certification will be deemed to refer to those state citations instead of the 40 CFR citations.

A. RESTRICTED WASTE REQUIRES TREATMENT
This waste must be treated to the applicable treatment standards set forth in 40 CFR Part 268.40.
☒ For Hazardous Debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 268.45."

B.1 RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards in 40 CFR Part 268.40 without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.3 GOOD FAITH ANALYTICAL CERTIFICATION FOR INCINERATED ORGANICS
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion in units as specified in 268.42 Table 1. I have been unable to detect the nonwastewater organic constituents despite having used best good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.4 DECHARACTERIZED WASTE REQUIRES TREATMENT FOR UNDERLYING HAZARDOUS CONSTITUENTS
"I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 or 268.49, to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

C. RESTRICTED WASTE SUBJECT TO A VARIANCE
This waste is subject to a national capacity variance, a treatability variance, or a case-by-case extension. Enter the effective date of prohibition in column 5 above.
☐ For hazardous debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 268.45."

D. RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT
"I certify under penalty of law I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR 268 Subpart D. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment."

E. WASTE IS NOT CURRENTLY SUBJECT TO PART 268 RESTRICTIONS
This waste is a newly identified waste that is not currently subject to any 40 CFR Part 268 restrictions.

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature Donna Stahr Title Waste Engineer Date 9/5/18

Form A1
Page 1 of 2

121272-01

LAND DISPOSAL NOTIFICATION AND CERTIFICATION (PHASE IV)

If the waste identified on the first page of this form is described by any of the following USEPA hazardous waste codes: F001, F002, F003, F004, F005, and all solvent constituents will not be monitored by the treater, then each constituent MUST be identified below by checking the appropriate box, and this page must accompany the shipment, along with the previous page of this form. If the waste code F039 describes this waste, then the corresponding list of constituents must be attached. If D001-D043 require treatment to 268.48 standards, then the underlying hazardous constituent(s) must also be attached.

SOLVENT WASTE TREATMENT STANDARDS					
F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Treatment Standard[1]		F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s)	Treatment Standard[1]	
	Wastewaters	Nonwastewaters		Wastewaters	Nonwastewaters
Acetone (F003)	0.28	160	Methanol (F003)	5.6	0.75 (TCLP)[3]
Benzene (F005)	0.14	10	Methylene chloride (F001, F002)	0.089	30
n-Butanol (n-butyl alcohol) (F003)	5.6	2.6	Methyl ethyl ketone (F005)	0.28	36
Carbon disulfide (F005)	3.8	4.8 (TCLP)[3]	Methyl isobutyl ketone (F003)	0.14	33
Carbon tetrachloride (F001)	0.057	6.0	Nitrobenzene (F004)	0.068	14
Chlorobenzene (F002)	0.057	6.0	2-Nitropropane (F005)	INCIN or {(WETOX or C HOXD) followed by CARBN}	INCIN
o-Cresol (F004)	0.11	5.6	Pyridine (F005)	0.014	16
Cresol (m- and p- isomers) (F004)	0.77	5.6	Tetrachloroethylene (F001, F002)	0.056	6.0
Cyclohexanone (F003)	0.36	0.75 (TCLP)[3]	Toluene (F005)	0.080	10
o-Dichlorobenzene (F002)	0.088	6.0	1,1,1-Trichloroethane (F001, F002)	0.054	6.0
2-Ethoxyethanol (F005) also called ethylene glycol, monoethyl ether	INCIN or BIODG	INCIN	1,1,2-Trichloroethane (F002)	0.054	6.0
Ethyl acetate (F003)	0.34	33	Trichloroethylene (F001, F002)	0.054	6.0
Ethyl benzene (F003)	0.057	10	Trichloromonofluoromethane (F002)	0.020	30
Ethyl ether (F003)	0.12	160	1,1,2-Trichloro-1,2,2-trifluoroethane (F002)	0.057	30
Isobutanol (Isobutyl Alcohol) (F005)	5.6	170	Xylenes (sum of o-, m-, and p-isomers) (F003)	0.32	30

[1] All spent solvent treatment standards are measured through a total waste analysis (TCA), unless otherwise noted. Wastewater units are mg/l, nonwastewater are mg/kg.

[2] For contaminated soils using the alternative soil treatment standards, the treatment standards for F001-F005 spent solvents must be a 90% reduction of the constituents or less than 10x the standard listed.

[3] These solvents require a TCLP standard with units of mg/l.

SUBCATEGORY REFERENCE

D001:

A. Ignitable characteristic wastes, except for the 40 CFR 261.21(a) (1) High TOC subcategory, that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems.

B. Ignitable characteristic wastes, except for the 40 CFR 261.21(a) (1) High TOC subcategory, that are managed in CWA/CWA-equivalent or Class I SDWA systems.

C. High TOC Ignitable characteristic liquids subcategory based on 40 CFR 261.21(a) (1) – Greater than or equal to 10% total organic carbon.

D002:

D. Corrosive characteristic wastes that are managed in non-CWA/non-CWA-equivalent/non-Class I SDWA systems.

E. Corrosive characteristic wastes that are managed in CWA, CWA-equivalent, or Class I SWDA systems.

121272-01

LAND DISPOSAL NOTIFICATION AND CERTIFICATION (PHASE IV)

Generator Name: FRNP GT 9-7-18 ~~US Department of Energy (Paducah Site)~~ Manifest Doc. No.: 019694504 JJK

Profile No.: 9750-01-0001 State Manifest No.: NA

This form is a continuation from form A1 for a waste identified by more than five USEPA waste code/subcategory groups. This page by itself IS NOT an acceptable Land Disposal Notification and Certification Form.

Continue (from form A1, Page 1) to identify ALL USEPA hazardous wastes that apply to this waste shipment (as defined by 40 CFR 261). For each waste number, identify the corresponding subcategory (write in the description from 40 CFR 268.40, or check NONE if the waste does not have a subcategory.). Also identify in column 5 how the waste must be managed. Spent solvents are listed on Form A1, Page 2. F039 constituent(s) and underlying hazardous constituent(s) if applicable, must be listed and attached.

REF #	3. US EPA HAZARDOUS WASTE CODE(S)	4. SUBCATEGORY ENTER THE SUBCATEGORY DESCRIPTION. IF NOT APPLICABLE, SIMPLY CHECK NONE.		5. HOW MUST THE WASTE BE MANAGED? ENTER LETTER FROM FORM A1, PAGE 1
		DESCRIPTION	NONE	
5			☐	
6			☐	
7			☐	
8			☐	
9			☐	
10			☐	
11			☐	
12			☐	
13			☐	
14			☐	
15			☐	
16			☐	
17			☐	
18			☐	
19			☐	
20			☐	
21			☐	
22			☐	
23			☐	
24			☐	
25			☐	
26			☐	
27			☐	
28			☐	
29			☐	
30			☐	
31			☐	
32			☐	
33			☐	
34			☐	
35			☐	

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature Donnie Hatch

Title Waste Engineer Date 9/5/18

Form A2
Page 1 of 2

121272-01

LAND DISPOSAL NOTIFICATION AND CERTIFICATION (PHASE IV)

Generator Name: ~~US Department of Energy (Paducah Site)~~ FRNP Manifest Doc. No.: 019694504 JJK

Profile No.: 9750-01 -0041 State Manifest No.: NA

This form is a continuation from form A1 for a waste identified by more than five USEPA waste code/subcategory groups. This page by itself IS NOT an acceptable Land Disposal Notification and Certification Form.

Continue (from form A1, Page 1) to identify ALL USEPA hazardous wastes that apply to this waste shipment (as defined by 40 CFR 261). For each waste number, identify the corresponding subcategory (write in the description from 40 CFR 268.40, or check NONE if the waste does not have a subcategory.). Also identify in column 5 how the waste must be managed. Spent solvents are listed on Form A1, Page 2. F039 constituent(s) and underlying hazardous constituent(s) if applicable, must be listed and attached.

REF #	3. US EPA HAZARDOUS WASTE CODE(S)	4. SUBCATEGORY ENTER THE SUBCATEGORY DESCRIPTION. IF NOT APPLICABLE, SIMPLY CHECK NONE. DESCRIPTION	NONE	5. HOW MUST THE WASTE BE MANAGED? ENTER LETTER FROM FORM A1, PAGE 1
36			☐	
37			☐	
38			☐	
39			☐	
40			☐	
41			☐	
42			☐	
43			☐	
44			☐	
45			☐	
46			☐	
47			☐	
48			☐	
49			☐	
50			☐	
51			☐	
52			☐	
53			☐	
54			☐	
55			☐	
56			☐	
57			☐	
58			☐	
59			☐	
60			☐	
61			☐	
62			☐	
63			☐	
64			☐	
65			☐	

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature Donni Stith

Title Waste Engineer Date 9/5/18

Form A2
Page 2 of 2

121272-01

F039/UNDERLYING HAZARDOUS CONSTITUENT (UTS) (Phase IV)

Generator Name: ~~US Department of Energy (Paducah Site)~~ FRNP Manifest Doc. No.: 019694504 JJK

Profile No.: 9758-01-0001 State Manifest No.: NA

If D001-D043 requires treatment to the 40 CRF 268.48 standards, then each underlying hazardous constituent (UHC) present in the waste at the point of generation and at a level above the Universal Treatment Standard (UTS) constituent specific standard must be listed. Write the letter (A1, B1, B2, B3, or C that corresponds to the letter on the land disposal form A1) beside each constituent present to properly describe how the constituent(s) must be managed under 40 CFR 268.7. If contaminated soil requires treatment to 40 CFR 268.49 standards, then each UHC in the waste at the point of generation and at a level above 10 times the UTS must be listed. Write the appropriate letter which corresponds to the letter on the LDR form.

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted
Acenaphthylene		0.059	3.4	2-Chloro-1,3-butadiene		0.057	0.28[1]
Acenapthene		0.059	3.4	Chlorodibromomethane		0.057	15
Acetone		0.28	160	Chloroethane		0.27	6.0
Acetonitrile		5.6	38[1]	bis(2-Chloroethoxy)methane		0.036	7.2
Acetophenone		0.010	9.7	bis(2-Chloroethyl)ether		0.033	6.0
2-Acetylaminofluorene		0.059	140	Chloroform		0.046	6.0
Acrolein		0.29	NA	bis(2-Chloroisopropyl)ether		0.055	7.2
Acylamide		19[1]	23[1]	p-Chloro-m-cresol		0.018	14
Acrylonitrile		0.24	84	2-Chloroethyl vinyl ether		0.062[1]	NA[1]
Aldicarb sulfone		0.056[1]	0.28[1]	Chloromethane/Methyl chloride		0.19	30
Aldrin		0.021	0.066	2-Chloronaphthalene		0.055	5.6
4-Aminobiphenyl		0.13	NA	2-Chlorophenol		0.044	5.7
Aniline		0.81	14	3-Chloropropylene		0.036	30
Anthracene		0.059	3.4	Chrysene		0.059	3.4
Aramite		0.36	NA	o-Cresol		0.11	5.6
alpha-(BHC)		0.00014	0.066	m-Cresol		0.77	5.6
beta-(BHC)		0.00014	0.066	p-Cresol		0.77	5.6
delta-(BHC)		0.023	0.066	m-Cumenyl methylcarbamate		0.056[1]	1.4[1]
gamma-(BHC)		0.0017	0.066	Cyclohexanone		0.36	0.75 mg/l[1]
Barban		0.056[1]	1.4[1]	o,p'-DDD		0.023	0.087
Bendiocarb		0.056[1]	1.4[1]	p,p'-DDD		0.023	0.087
Benomyl		0.056[1]	1.4[1]	o,p'-DDE		0.031	0.087
Benzene		0.14	10	p,p'-DDE		0.031	0.087
Benz(a)anthracene		0.059	3.4	o,p'-DDT		0.0039	0.087
Benzal chloride		0.055[1]	6.0[1]	p,p'-DDT		0.0039	0.087
Benzo(b)fluoranthene[3]		0.11	6.8	Dibenz(a,h)anthracene		0.055	8.2
Benzo(k)fluoranthene[3]		0.11	6.8	Dibenz(a,e)pyrene		0.061	NA
Benzo (g,h,i)perylene		0.0055	1.8	1,2-Dibromo-3-chloropropane		0.11	15
Benzo(a)pyrene		0.061	3.4	1,2-Dibromomethane/ Ethylene dibromide		0.028	15
Bromodichloromethane		0.35	15	Dibromomethane		0.11	15
Bromomethane/Methyl Bromide		0.11	15	m-Dichlorobenzene		0.036	6.0
4-Bromophenyl phenyl ether		0.055	15	o-Dichlorobenzene		0.088	6.0
n-Butyl alcohol		5.6	2.6	p-Dichlorobenzene		0.090	6.0
Butylate		0.042[1]	1.4[1]	Dichlorodifluoromethane		0.23	7.2
Butyl benzyl phthalate		0.017	28	1,1-Dichloroethane		0.059	6.0
2-sec-Butyl-4,6-dinitrophenol/Dinoseb		0.066	2.5	1,2-Dichloroethane		0.21	6.0
Carbaryl		0.006[1]	0.14[1]	1,1-Dichloroethylene		0.025	6.0
Carbenzadim		0.056[1]	1.4[1]	trans-1,2-Dichloroethylene		0.054	30
Carbofuran		0.006[1]	0.14[1]	2,4-Dichlorophenol		0.044	14
Carbofuran phenol		0.056[1]	1.4[1]	2.6-Dichlorophenol		0.044	14
Carbon disulfide		3.8	4.8 mg/l TCLP[1]	2,4-Dichlorophenoxyacetic acid/2,4-D		0.72	10
Carbon tetrachloride		0.057	6.0	1,2-Dichloropropane		0.85	18
Carbosulfan		0.028[1]	1.4[1]	cis-1,3-Dichloropropylene		0.036	18
Chlordane (alpha and gamma isomers)		0.0033	0.26	trans-1,3-Dichloropropylene		0.036	18
p-Chloroaniline		0.46	16	Dieldrin		0.017	0.13
Chlorobenzene		0.057	6.0	Diethyl phthalate		0.20	28

121272-01

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted
Chlorobenzilate		0.10	NA	p-Dimethylaminoazobenzene		0.13[1]	NA
2,4-Dimethyl phenol		0.036	14	Methylene chloride		0.089	30
Dimethyl phthalate		0.047	28	Methyl ethyl ketone		0.28	36
Di-n-butyl phthalate		0.057	28	Methyl isobutyl ketone		0.14	33
1,4-Dinitrobenzene		0.32	2.3	Methyl methacrylate		0.14	160
4,6-Dinitro-o-cresol		0.28	160	Methyl methansulfonate		0.018	NA
2,4-Dinitrophenol		0.12	160	Methyl parathion		0.014	4.6
2,4-Dinitrotoluene		0.32	140	Metolcarb		0.056[1]	1.4[1]
2,6-Dinitrotoluene		0.55	28	Mexacarbate		0.056[1]	1.4[1]
Di-n-octyl phthalate		0.017	28	Molinate		0.042[1]	1.4[1]
Di-n-propylnitrosamine		0.40	14	Naphthalene		0.059	5.6
1,4-Dioxane		12.0	170	2-Naphthylamine		0.52	NA
Diphenylamine[3]		0.92	13[1]	o-Nitroaniline		0.27[1]	14[1]
Diphenylnitrosamine[3]		0.92	13[1]	p-Nitroaniline		0.028	28
1,2-Diphenylhydrazine		0.087	NA	Nitrobenzene		0.068	14
Disulfoton		0.017	6.2	5-Nitro-o-toluidine		0.32	28
Dithiocarbamates (total)		0.028	28[1]	o-Nitrophenol		0.028[1]	13[1]
Endosulfan I		0.023	0.066	p-Nitrophenol		0.12	29
Endosulfan II		0.029	0.13	N-Nitrosodiethylamine		0.40	28
Endosulfan sulfate		0.029	0.13	N-Nitrosodimethylamine		0.40	2.3[1]
Endrin		0.0028	0.13	N-Nitroso-di-n-butylamine		0.40	17
Endrin aldehyde		0.025	0.13	N-Nitrosomethylethylamine		0.40	2.3
EPTC		0.042[1]	1.4[1]	N-Nitrosomorpholine		0.40	2.3
Ethyl acetate		0.34	33	N-Nitrosopiperidine		0.013	35
Ethyl benzene		0.057	10	N-Nitrosopyrrolidine		0.013	35
Ethyl cyanide/Propanenitrile		0.24	360	Oxamyl		0.056[1]	0.28[1]
Ethyl ether		0.12	160	Parathion		0.014	4.6
Bis(2-Ethylhexyl)phthalate		0.28	28	Total PCBs (sum of all PCB isomers or all Aroclors)	A	0.10	10
Ethyl methacrylate		0.14	160	Pebulate		0.042[1]	1.4[1]
Ethylene oxide		0.12	NA	Pentachlorobenzene		0.055[1]	10[1]
Famphur		0.017	15	PeCDDs (All Pentachlorodibenzo-p-dioxins)		0.000035	0.001
Fluoranthene		0.068	3.4	PeCDFs(All Pentachlorodibenzofurans)		0.000035	0.001
Fluorene		0.059	3.4	Pentachloroethane		0.055	6.0
Formetanate hydrochloride		0.056[1]	1.4[1]	Pentachloronitrobenzene		0.055	4.8
Heptachlor		0.0012	0.066	Pentachlorophenol		0.089	7.4
Heptachlor epoxide		0.016	0.066	Phenacetin		0.081	16
Hexachlorobenzene		0.055	10	Phenanthrene		0.059	5.6
Hexachlorobutadiene		0.055	5.6	Phenol		0.039	6.2
Hexachlorocyclopentadiene		0.057	2.4	Phorate		0.021	4.6
HxCDDs (All Hexachrorodibenzo-p-dioxins)		0.000063	0.001	Phthalic acid		0.055[1]	28[1]
HxCDFs (All Hexachlorodibenzofurans)		0.000063	0.001	Phthalic anhydride		0.055	28[1]
Hexachloroethane		0.055	30	Physostigmine		0.056[1]	1.4[1]
Hexachloropropylene		0.035	30	Physostigmine salicylate		0.056[1]	1.4[1]
Indeno(1,2,3-c,d)pyrene		0.0055	3.4	Promecarb		0.056[1]	1.4[1]
Iodomethane		0.19	65	Pronamide		0.093	1.5
Isobutyl alcohol		5.6	170	Propham		0.056[1]	1.4[1]
Isodrin		0.021	0.066	Propoxur		0.056[1]	1.4[1]
Isosafrole		0.081	2.6	Prosulfocarb		0.042[1]	1.4[1]
Kepone		0.0011	0.13	Pyrene		0.067	8.2
Methacrylonitrile		0.24	84	Pyridine		0.014	16
Methanol		5.6	0.75 mg/l[1]	Safrole		0.081	22
Methapyrilene		0.081	1.5	Silvex/2,4,5-TP		0.72	7.9
Methiocarb		0.056[1]	1.4[1]	1,2,4,5-Tetrachlorobenzene		0.055	14
Methomyl		0.028[1]	0.14[1]	TCDDs (All Tetrachlorodibenzo-p-dioxins)		0.000063	0.001
Methoxychlor		0.25	0.18	TCDFs (All Tetrachlorodibenzo-furans)		0.000063	0.001
3-Methylcholanthrene		0.0055	15	1,1,1,2-Tetrachloroethane		0.057	6.0
4,4'-Methylene bis(2-chloroaniline)		0.50	30	1,1,2,2-Tetrachloroethane		0.057	6.0

121272-01

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW (mg/l)	NWW (mg/kg) unless noted
Tetrachloroethylene		0.056	6.0	INORGANIC CONSTITUENTS			
2,3,4,6-Tetrachlorophenol		0.030	7.4	Antimony		1.9	2.1 mg/l TCLP
Thiodicarb		0.0191	1.4[1]	Antimony		1.9	1.15 mg/l TCLP[4]
Thiophanate-methyl		0.0561	1.4[1]	Arsenic		1.4	5.0 mg/l TCLP
Toluene		0.080	10	Barium		1.2	7.6 mg/l TCLP
Toxaphene		0.0095	2.6	Barium		1.2	21 mg/l TCLP[4]
Triallate		0.042[1]	1.4[1]	Beryllium		0.82	0.014 mg/l TCLP
Tribromomethane/Bromoform		0.63	15	Beryllium		0.82	1.22 mg/l TCLP[4]
2,4,6-Tribromophenol		0.035	7.4	Cadmium		0.69	0.19 mg/l TCLP
1,2,4-Trichlorobenzene		0.055	19	Cadmium		0.69	0.11 mg/l TCLP[4]
1,1,1-Trichloroethane		0.054	6.0	Chromium (Total)		2.77	0.86mg/l TCLP
1,1,2-Trichloroethane		0.054	6.0	Chromium (Total)		2.77	0.60 mg/l TCLP[4]
Trichloroethylene		0.054	6.0	Cyanides (Total)		1.2	590
Trichloromonofluoromethane		0.020	30	Cyanides (Amenable)		0.86	30[1]
2,4,5-Trichlorophenol		0.18	7.4	Fluoride		35	NA[4]
2,4,6-Trichlorophenol		0.035	7.4	Lead		0.69	0.37 mg/l
2,4,5-Trichlorophenoxyacetic acid/2,4,5-T		0.72	7.9	Lead		0.69	0.75 mg/l[4] TCLP
1,2,3-Trichloropropane		0.85	30	Mercury (Nonwastewater from Retort)		NA	0.20 mg/l TCLP
1,1,2-Trichloro-1,2,2-trifluoroethane		0.057	30	Mercury (All others)		0.15	0.025 mg/l TCLP
Triethylamine		0.081[1]	1.5[1]	Nickel		3.98	5.0 mg/l TCLP
Tris-(2,3-Dibromopropyl)phosphate		0.11	0.10[1]	Nickel		3.98	11 mg/l TCLP[4]
Vernolate		0.042[1]	6.0[1]	Selenium		0.82	0.16 mg/l TCLP
Vinyl chloride		0.27	6.0	Selenium		0.82	5.7 mg/l TCLP[5]
Xylenes – mixed isomers (sum of o-,m-, and p-xylene		0.32	30	Silver		0.43	0.30 mg/l TCLP
				Silver		0.43	0.14 mg/l TCLP[4]
				Sulfide		14	NA[2]
				Thallium		1.4	0.078 mg/l TCLP[1]
				Thallium		1.4	0.20 mg/l TCLP[4]
				Vanadium		4.3[2]	1.6 mg/l TCLP[2]
				Zinc		2.61	4.3 mg/l TCLP[2]

[1] These constituents are only applicable as underlying hazardous constituents. These constituents are not constituents that require treatment in F039 wastes.
[2] Not an underlying hazardous constituent requiring treatment in a D001-D043 waste.
[3] These compounds are regulated by the sum of their concentration instead of as individual constituents.
[4] These constituents are effective in authorized states or states with no LDR program on 8/24/99. These concentrations are effective in all other states upon adoption by the state.
[5] Effective 8/24/98 in unauthorized states or states with no LDR program. Selenium at 5.7 mg/l is not an underlying hazardous constituent in D001-D043 waste. This becomes effective in authorized states upon adoption by the state.

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: KY8890008982
2. Page 1 of: 2
3. Emergency Response Phone: 1-270-441-6211
4. Manifest Tracking Number: 019694515 JJK

GENERATOR

5. Generator's Name and Mailing Address: Four Rivers Nuclear Partnership, LLC (FRNP), 5511 Hobbs Road, Kevil, KY 42053
Generator's Phone: 1-270-441-5025
Generator's Site Address (if different than mailing address): FRNP, Paducah Gaseous Diffusion Plant, 5511 Hobbs Rd, Kevil, KY 42053

6. Transporter 1 Company Name: CAST Transportation
U.S. EPA ID Number: COR000005389

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: EnergySolutions Clive Disposal Site - Bulk Waste Facility, US I-80 Exit 49, Clive, UT 84029
U.S. EPA ID Number: UTD982598898
Facility's Phone: 1-435-884-0155

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
RQ	UN2913, Radioactive material, surface contaminated objects (SCO-1), 7, (PCB), Np-237, Tc-99, Th-230, U-234, solid/oxide, 23 MBq, Fissile Excepted	1	DM	157	K	
	2.					
	3.					

Four Rivers Nuclear Partnership, LLC (FRNP) and the U.S. Department of Energy (DOE) are co-generators pursuant to a Co-Generator agreement dated September 13, 2017. Under this agreement, FRNP is responsible for performing all Resource Conservation and Recovery Act (RCRA) generator activities on behalf of both FRNP and DOE for all activities under the scope of FRNP's Contract DE-EM0004895, including, but not limited to, characterizing waste, manifesting waste to off-site facilities, packaging and labeling waste for transport, and storing and managing waste, in accordance with RCRA requirements. Transportation hereunder is for DOE and the actual total transportation charges paid are to be reimbursed by the Government pursuant to Contract DE-EM0004895.

14. Special Handling Instructions and Additional Information
Truck: 14336 Van: 527 TID: 2058516 "PRD8965" PCB start Date: 10/04/17
ERG #162 In the event of an RQ Release, call 1-800-424-9802 If undeliverable, return to generator
Exclusive Use Shipment, See Attachment for Additional Info Shipment ID: 7340-000004

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Lachelle Telfair on behalf of FRNP
Signature:
Month: 9 Day: 20 Year: 18

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: ROBERT WRIGHT
Signature:
Month: 9 Day: 20 Year: 18

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

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Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Thomas Wright
Signature:
Month: 09 Day: 24 Year: 18

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

PCB & Additional Information Attachment, Page 2 of 2

Manifest Number: 019694515 JJK

Shipment ID Number: 7340-08-0004

Shipment Date: 9/20/2018

UHWM Section	RFD	Container / WASTE ID	Barcode	Description	PCB Date to Storage	NET VOLUME (ft3)	GROSS WT (lb)	Gross Wt (Kg)	NET WT (lb)	NET Wt (Kg)	Maximum Activity MBq
9b.1	121277	121277-01	PAD17C36240	PCB LIGHT BALLASTS/TRANSFORMERS/CAPACITORS	10/04/17	7.4	403	183	347	157	23
		Totals	**1**			**7.4**	**403**	**183**	**347**	**157**	**23**

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
KY 8890008982	2	1-270-441-6211	019694524 JJK

GENERATOR

5. Generator's Name and Mailing Address
Four Rivers Nuclear Partnership, LLC, (FRNP)
5511 Hobbs Road, Kevil, KY 42053
Generator's Phone: 1-270-441-5025

Generator's Site Address (if different than mailing address)
FRNP
Paducah Gaseous Diffusion Plant
5511 Hobbs Rd, Kevil, KY 42053

6. Transporter 1 Company Name: Interstate Ventures, Inc. — U.S. EPA ID Number: TNR000023390

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Energy Solutions Clive Disposal Site - Bulk Waste Facility
US I-80 Exit 49, Clive, UT 84029
Facility's Phone: 1-435-884-0155
U.S. EPA ID Number: UTD 982598888

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
RQ	1. UN3077, Environmentally hazardous substance, solid, n.o.s. (PCB), 9, PG-III	3	DM	78	K	
	2.					
	3.					
	4.					

4. Four Rivers Nuclear Partnership, LLC (FRNP) and the U.S. Department of Energy (DOE) are co-generators pursuant to a Co-Generator agreement dated September 13, 2017. Under this agreement, FRNP is responsible for performing all Resource Conservation and Recovery Act (RCRA) generator activities on behalf of both FRNP and DOE for all activities under the scope of FRNP's Contract DE-EM0004895, including, but not limited to, characterizing waste, manifesting waste to off-site facilities, packaging and labeling waste for transport, and storing and managing waste, in accordance with RCRA requirements. Transportation hereunder is for DOE and the actual total transportation charges paid are to be reimbursed by the Government pursuant to Contract DE-EM0004895.

14. Special Handling Instructions and Additional Information
Truck: 339 Van: 53007 TID: 20585536
ERG #171 In the event of an RQ Release, call 1-800-424-8802
See PCB Attachment for Additional Information
PCB Date to Storage: 04/18/18
If undelivered by return to generator
Shipment ID: 9750-05-0002

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: LaChelle Telfair on behalf of the FRNP — Signature: LaChelle Telfair — Month: 9 — Day: 26

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Duane Morgan — Signature: Duane Morgan — Month: 9 — Day: 26
Transporter 2 Printed/Typed Name — Signature — Month — Day

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month — Day — Y

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Albert Evans — Signature: Albert Evans — Month: 10 — Day: 1 — Year: 18

Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTE

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BY

Additional Information Attachment, Page 2 of 2

Manifest Number: 019694524 JJK

Shipment ID Number: 9750-05-0002

Shipment Date: 9/26/2018

UHWM Section	RFD	Container / WASTE ID	Barcode	Description	PCB Date to Storage	NET VOLUME (ft3)	GROSS WT (lb)	Gross Wt (Kg)	NET WT (lb)	NET Wt (Kg)
9b.1	121424	121424-02	PAD18C40020	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	04/18/18	7.4	110	50	54	24
9b.1	121424	121424-03	PAD18C40029	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	06/07/18	7.4	116	53	60	27
9b.1	121424	121424-04	PAD18C40027	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	08/09/18	7.4	114	52	58	26
		Totals	**3**			**22.2**	**340**	**154**	**172**	**78**

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: KY8890008982 | 2. Page 1 of: 2 | 3. Emergency Response Phone: 1-270-441-6211 | 4. Manifest Tracking Number: 019694525 JJK

GENERATOR

5. Generator's Name and Mailing Address: Four Rivers Nuclear Partnership, LLC, (FRNP) 5511 Hobbs Road, Kevil, KY 42053
Generator's Phone: 1-270-441-5825
Generator's Site Address (if different than mailing address): FRNP Paducah Gaseous Diffusion Plant 5511 Hobbs Rd. Kevil, Ky 42053

6. Transporter 1 Company Name: Interstate Ventures, Inc. | U.S. EPA ID Number: TNR000023390

7. Transporter 2 Company Name | U.S. EPA ID Number:

8. Designated Facility Name and Site Address: EnergySolutions Clive Disposal Site - Bulk Waste Facility US I-80 Exit 49, Clive, UT 84029
Facility's Phone: 1-435-884-0155 | U.S. EPA ID Number: UTD982598898

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
RQ	1. UN3082, Environmentally hazardous substance, liquid, n.o.s. (RQ), 9, PG III	1	DM	191	K	
	2.					
	3.					

Four Rivers Nuclear Partnership, LLC (FRNP) and the U.S. Department of Energy (DOE) are co-generators pursuant to a Co-Generator agreement dated September 13, 2017. Under this agreement, FRNP is responsible for performing all Resource Conservation and Recovery Act (RCRA) generator activities on behalf of both FRNP and DOE for all activities under the scope of FRNP's Contract DE-EM0004895, including, but not limited to, characterizing waste, manifesting waste to off-site facilities, packaging and labeling waste for transport, and storing and managing waste, in accordance with RCRA requirements. Transportation hereunder is for DOE and the actual total transportation charges paid are to be reimbursed by the Government pursuant to Contract DE-EM0004895.

14. Special Handling Instructions and Additional Information
Truck: 339 Van: 53007 TID: 20585536 PCB Data to Storage: 04/23/18 If undeliverable return to generator
ERG # 171 In the event of an RQ Release, call 1-800-424-8802
See PCB Attachment for Additional Info Shipment ID: 9750-04-0003

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: LaChelle Telfair on behalf of FRNP | Signature: LaChelle Telfair | Month: 9 | Day: 26 | Year: 18

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: DWANE MORGAN | Signature | Month: 9 | Day: 26 | Year: 18

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

RECEIVED OCT 04 2018 Manifest Reference Number:

18b. Alternate Facility (or Generator) | U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Albert Gums | Signature | Month: 10 | Day: 1 | Year: 18

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

Manifest Number: 019694525 JJK

Shipment ID Number: 9750-04-0003

Shipment Date: 9/26/2018

UHWM Section	RFD	Container / WASTE ID	Barcode	Description	PCB Date to Storage	NET VOLUME (ft3)	GROSS WT (lb)	Gross Wt (Kg)	NET WT (lb)	NET Wt (Kg)
9b.1	121423	121423-01	PAD18C40023	VENTILATION DUCT OIL AND WATER	04/23/18	7.4	476	216	420	191
		Totals	**1**			**7.4**	**476**	**216**	**420**	**191**

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APPENDIX B

PCB WASTE CERTIFICATES OF DISPOSAL

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RT

EPA ID# TND982109142

COD Number: TS2017054

657 Gallaher Road
Kingston, TN 37763

Certificate of Disposal

Diversified Scientific Services, Inc. of Kingston, TN is providing this certificate to confirm the disposal of TSCA Regulated PCB waste by Alternate Thermal Treatment (40CFR 761.60(e)).

Hereby certifies such destruction on: 12/7/2017

Attached list of containers from Shipment Number DSSI-16-112

Shipped on Hazardous Waste Manifest Number 006841822JJK

Generator Name	**US Dept of Energy - Fluor Federal Services, Inc.**
EPA ID No.	**KY8890008982**
Address	**5600 Hobbs Road**
City, State, Zip	**Paducah KY 42001-**
Contact	**Regina Pea**

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U. S. C. 1001 and 15 U. S. C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I cerify as a company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete:

RECEIVED
JAN 03 2018
BY:

By: Dawn Garrett

Title: Waste Tracking Shipping

Signature: Dawn Garrett

B-3

RT

Certificate of Destruction
TS2017054

ShipmentNumber	HazManifestNumber	WPSNumber	Package	ItemNumber	GeneratorCode	nCampaignNum	DateBurnStop	WasteCode	DateReceived
DSSI-16-112	006841822JJK	16-10-042	73133	120357-01	KYFLU01	17-018	07-Dec-17	Bulk Liquid - PCBs	27-Oct-16
DSSI-16-112	006841822JJK	16-10-042	73134	120357-02	KYFLU01	17-018	07-Dec-17	Bulk Liquid - PCBs	27-Oct-16
DSSI-16-112	006841822JJK	16-10-042	73135	120357-03	KYFLU01	17-018	07-Dec-17	Bulk Liquid - PCBs	27-Oct-16
DSSI-16-112	006841822JJK	16-10-042	73136	120357-04	KYFLU01	17-018	07-Dec-17	Bulk Liquid - PCBs	27-Oct-16
DSSI-16-112	006841822JJK	16-10-042	73137	120357-05	KYFLU01	17-018	07-Dec-17	Bulk Liquid - PCBs	27-Oct-16

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JAN 03 2018

ENERGY*SOLUTIONS*

CERTIFICATE OF DISPOSAL

3 miles South, Exit 49, I-80
Clive, Utah 84029
EPA ID: UTD982598898

DOE, Paducah, Paducah

This certificate acknowledges that the following manifested shipments have been disposed of as listed below:

Shipment	Manifest	Disposal Date	Volume (Cu/Ft)	Process	Disposal Location
9701-26-0001	41867	12/07/2017	798.0	Landfill	Mixed Waste

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BY

The total volume above represents the cubic feet of waste disposed of at EnergySolutions' Disposal Facility Landfill. Disposal is subject to EnergySolutions' Radioactive Material License, all other applicable licenses, permits and regulations, and the Disposal Agreement.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true, accurate and complete. As to the identification section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.

Brian Beynon
Dec 12 2017 6:09 AM

Brian Beynon
Operations Manager

cosign
Date

T

CERTIFICATE OF DISPOSAL

for

Fluor Federal Services

Materials and Energy Corporation
2010 Hwy 58 Suite 1020
Oak Ridge, TN 37830

EPA ID: TNR000005397

This certificate acknowledges that the following manifested shipments have been disposed of as detailed below.

		Shipment	Manifest		
		ETTP-17-171	006843007JJK		
Item Number	**Package Number**	**Incoming Shipment**	**Process**	**Date Shipped**	**Discussion**
120543-26	111309	ETTP-17-171	Trans-Shipment	1/31/2018	Waste shipped to DSSI

RECEIVED
JUN 22 2018

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Joseph Crider

6/22/2018
Date

T

CERTIFICATE OF DISPOSAL

for

Fluor Federal Services

Materials and Energy Corporation
2010 Hwy 58 Suite 1020
Oak Ridge, TN 37830

EPA ID: TNR000005397

This certificate acknowledges that the following manifested shipments have been disposed of as detailed below.

Shipment	Manifest
ETTP-17-168	006843002JJK

Item Number	Package Number	Incoming Shipment	Process	Date Shipped	Discussion
120543-03	111271	ETTP-17-168	Trans-Shipment	2/15/2018	Waste shipped to DSSI
120543-31	111277	ETTP-17-168	Trans-Shipment	2/15/2018	Waste shipped to DSSI

RECEIVED
JUN 22 2018

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Joseph Crider

6/22/2018
Date

Materials and Energy Corporation
2010 Hwy 58 Suite 1020
Oak Ridge, TN 37830

EPA ID: TNR000005397

CERTIFICATE OF DISPOSAL

for

Fluor Federal Serivces

This certificate acknowledges that the following manifested shipments have been disposed of as detailed below.

Shipment **Manifest**

ETTP-17-168 ETTP-17-169 ETTP-17-170 ETTP-17-171

Item Number	Package Number	Incoming Shipment	Process	Date Shipped	Discussion
120338-03	111269	ETTP-17-168	Trans-Shipment	1/24/2018	Waste shipped to DSSI
120543-01	111270	ETTP-17-168	Trans-Shipment	1/24/2018	Waste shipped to DSSI
120543-29	111276	ETTP-17-168	Trans-Shipment	1/31/2018	Waste shipped to DSSI
120543-32	111278	ETTP-17-168	Trans-Shipment	1/24/2018	Waste shipped to DSSI
120543-33	111279	ETTP-17-168	Trans-Shipment	1/24/2018	Waste shipped to DSSI
120543-08	111295	ETTP-17-170	Trans-Shipment	3/15/2018	Waste shipped to DSSI
120543-10	111296	ETTP-17-170	Trans-Shipment	1/31/2018	Waste shipped to DSSI
120543-15	111299	ETTP-17-170	Trans-Shipment	3/15/2018	Waste shipped to DSSI
120543-34	111311	ETTP-17-171	Trans-Shipment	1/24/2018	Waste shipped to DSSI
120543-30	111292	ETTP-17-169	Trans-Shipment	1/24/2018	Waste shipped to DSSI
120338-04	111283	ETTP-17-169	Trans-Shipment	1/31/2018	Waste shipped to DSSI
120543-07	111286	ETTP-17-169	Trans-Shipment	1/31/2018	Waste shipped to DSSI
120543-36	111312	ETTP-17-171	Trans-Shipment	1/31/2018	Waste shipped to DSSI
120543-35	111280	ETTP-17-168	Trans-Shipment	1/24/2018	Waste shipped to DSSI

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Joseph Crider

RECEIVED
JUL 06 2018

7/6/2018
Date

ENERGYSOLUTIONS

CERTIFICATE OF DISPOSAL

3 miles South, Exit 49, I-80
Clive, Utah 84029
EPA ID: UTD982598898

DOE, Paducah, Paducah

This certificate acknowledges that the following manifested shipments have been disposed of as listed below:

Shipment	Manifest	Disposal Date	Volume (Cu/Ft)	Process	Disposal Location
7340-08-0002	41936	06/18/2018	171.0	Landfill	Mixed Waste

RECEIVED
JUL 13 2018

The total volume above represents the cubic feet of waste disposed of at EnergySolutions' Disposal Facility Landfill. Disposal is subject to EnergySolutions' Radioactive Material License, all other applicable licenses, permits and regulations, and the Disposal Agreement.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true, accurate and complete. As to the identification section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.

Brian Beynon
Jul 13 2018 7:46 AM

Brian Beynon
Operations Manager

Date

cosign

ENERGY*SOLUTIONS*

CERTIFICATE OF DISPOSAL

3 miles South, Exit 49, I-80
Clive, Utah 84029
EPA ID: UTD982598898

DOE, Paducah, Paducah

This certificate acknowledges that the following manifested shipments have been disposed of as listed below:

Shipment	Manifest	Disposal Date	Volume (Cu/Ft)	Process	Disposal Location
9750-01-0001	94504	09/17/2018	93.0	Landfill	Mixed Waste

RECEIVED
OCT 23 2018

The total volume above represents the cubic feet of waste disposed of at EnergySolutions' Disposal Facility Landfill. Disposal is subject to EnergySolutions' Radioactive Material License, all other applicable licenses, permits and regulations, and the Disposal Agreement.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true, accurate and complete. As to the identification section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.

Brian Beynon
Sep 28 2018 1:50 PM

Brian Beynon
Operations Manager

cosign
Date

ENERGY*SOLUTIONS*

CERTIFICATE OF DISPOSAL

3 miles South, Exit 49, I-80
Clive, Utah 84029
EPA ID: UTD982598898

DOE, Paducah, Paducah

This certificate acknowledges that the following manifested shipments have been disposed of as listed below:

Shipment	Manifest	Disposal Date	Volume (Cu/Ft)	Process	Disposal Location
7340-08-0003	41943	10/05/2018	1,472.0	Landfill	Mixed Waste
7340-08-0004	94515	10/05/2018	7.5	Landfill	Mixed Waste

The total volume above represents the cubic feet of waste disposed of at EnergySolutions' Disposal Facility Landfill. Disposal is subject to EnergySolutions' Radioactive Material License, all other applicable licenses, permits and regulations, and the Disposal Agreement.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true, accurate and complete. As to the identification section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.

Brian Beynon
Oct 19 2018 10:48 AM

Brian Beynon
Operations Manager

cosign
Date

Clean Harbors Deer Park, LLC
2027 Independence Parkway South
La Porte TX, 77571
TXD055141378
(281) 930-2300

CERTIFICATE OF DISPOSAL

Manifest Mailing Name:	Four Rivers Nuclear Partnership, LLC		
Manifest Mailing Address:	5511 Hobbs Road Kevil, KY, 42053	Job Address:	5511 Hobbs Road Kevil, KY 42053
Customer Contact Name:	Mrs Chelle Telfair		
		Date Received:	9/20/2018
Generator EPA ID:	KY8890008982	Load #:	404946
Sales Order#:	1804460049	Manifest #:	011797542FLE

Original CH ID #	Date Removed From Service	Unit Type	Serial # / Customer ID	Material Description	Disposal Date	Method of Disposal	Disposal Facility
68410031	8/8/2018	DM	121603-12 /	High Btu PCB Liquids For Incineration	10/25/2018	Incineration	Deer Park, TX Facility
68410032	8/8/2018	DM	121603-11 /	High Btu PCB Liquids For Incineration	10/25/2018	Incineration	Deer Park, TX Facility
68410033	8/8/2018	DM	121603-13 /	High Btu PCB Liquids For Incineration	10/25/2018	Incineration	Deer Park, TX Facility
68410034	8/8/2018	DM	121603-7 /	High Btu PCB Liquids For Incineration	10/25/2018	Incineration	Deer Park, TX Facility
68410035	8/8/2018	DM	121603-10 /	High Btu PCB Liquids For Incineration	10/25/2018	Incineration	Deer Park, TX Facility
68410036	8/8/2018	DM	121603-4 /	High Btu PCB Liquids For Incineration	10/25/2018	Incineration	Deer Park, TX Facility
68410037	8/8/2018	DM	121603-6 /	High Btu PCB Liquids For Incineration	10/25/2018	Incineration	Deer Park, TX Facility
68410038	8/8/2018	DM	121603-5 /	High Btu PCB Liquids For Incineration	10/25/2018	Incineration	Deer Park, TX Facility
68410039	8/8/2018	DM	121603-18 /	High Btu PCB Liquids For Incineration	10/25/2018	Incineration	Deer Park, TX Facility
68410040	8/8/2018	DM	121603-16 /	High Btu PCB Liquids For Incineration	10/25/2018	Incineration	Deer Park, TX Facility
68410041	8/8/2018	DM	121603-17 /	High Btu PCB Liquids For Incineration	10/25/2018	Incineration	Deer Park, TX Facility
68410042	8/8/2018	DM	121603-8 /	High Btu PCB Liquids For Incineration	10/25/2018	Incineration	Deer Park, TX Facility
68410043	8/8/2018	DM	121603-19 /	High Btu PCB Liquids For Incineration	10/25/2018	Incineration	Deer Park, TX Facility
68410044	8/8/2018	DM	121603-15 /	High Btu PCB Liquids For Incineration	10/25/2018	Incineration	Deer Park, TX Facility
68410045	8/8/2018	DM	121603-14 /	High Btu PCB Liquids For Incineration	10/25/2018	Incineration	Deer Park, TX Facility
68410046	8/8/2018	DM	121603-9 /	High Btu PCB Liquids For Incineration	10/25/2018	Incineration	Deer Park, TX Facility

Under Civil and Criminal Penalties of Law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

RECEIVED
NOV 08 2018
BY:

Authorized Agent

Thursday, November 08, 2018
Date

EPA ID # TND982109142

DIVERSIFIED SCIENTIFIC SERVICES, INC.

COD Number: TSDSSI-18-059-20181113

Certificate of Disposal

Diversified Scientific Services, Inc. of Kingston, Tennessee is providing this certificate to confirm the disposal of TSCA Regulated PCB waste by Alternate Thermal Treatment (40CFR 761.60(e)).

Hereby certifies such destruction on: 11/13/2018

Attached list of containers from Shipment Number DSSI-18-059

Shipped on Hazardous Waste Manifest Number 006841920JJK

Generator Name	US Dept of Energy - Four Rivers (formerly Fluor Federal Services, Inc.)
EPA ID No.	KY8890008982
Address	5511 Hobbs Road
	Paducah, KY 42001-
Contact	LaChelle Telfair

RECEIVED
NOV 20 2018
BY

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U. S. C. 1001 and 15 U. S. C. 2615). I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as a company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

By: Ralph Sheffield

Title: Waste Tracking Representative

Signature:

11/14/2018

Certificate of Disposal

TSDSSI-18-059-20181113

Shipment Number	Haz Manifest Number	WPS Number	Package Number	Item Number	Burn Campaign Number	Date Processed	Generator Code	Waste Code	Date Received
DSSI-18-059	006841920JJK	18-05-019	77141	121073-01	18-012	11/13/2018	KYFLU01	Bulk Liquid - PCBs	5/14/2018
DSSI-18-059	006841920JJK	18-05-019	77142	121075-01	18-012	11/13/2018	KYFLU01	Bulk Liquid - PCBs	5/14/2018
DSSI-18-059	006841920JJK	18-05-019	77143	121077-01	18-012	11/13/2018	KYFLU01	Bulk Liquid - PCBs	5/14/2018
DSSI-18-059	006841920JJK	18-05-019	77144	121077-02	18-012	11/13/2018	KYFLU01	Bulk Liquid - PCBs	5/14/2018
DSSI-18-059	006841920JJK	18-05-019	77145	121077-03	18-012	11/13/2018	KYFLU01	Bulk Liquid - PCBs	5/14/2018
DSSI-18-059	006841920JJK	18-05-019	77146	121077-04	18-012	11/13/2018	KYFLU01	Bulk Liquid - PCBs	5/14/2018
DSSI-18-059	006841920JJK	18-05-019	77147	121077-05	18-012	11/13/2018	KYFLU01	Bulk Liquid - PCBs	5/14/2018
DSSI-18-059	006841920JJK	18-05-019	77148	121079-01	18-012	11/13/2018	KYFLU01	Bulk Liquid - PCBs	5/14/2018
DSSI-18-059	006841920JJK	18-05-019	77149	121079-02	18-012	11/13/2018	KYFLU01	Bulk Liquid - PCBs	5/14/2018
DSSI-18-059	006841920JJK	18-05-019	77150	121079-03	18-012	11/13/2018	KYFLU01	Bulk Liquid - PCBs	5/14/2018
DSSI-18-059	006841920JJK	18-05-019	77151	121079-04	18-012	11/13/2018	KYFLU01	Bulk Liquid - PCBs	5/14/2018
DSSI-18-059	006841920JJK	18-05-019	77152	121255-01	18-012	11/13/2018	KYFLU01	Bulk Liquid - PCBs	5/14/2018

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ENERGYSOLUTIONS

CERTIFICATE OF DISPOSAL

3 miles South, Exit 49, I-80
Clive, Utah 84029
EPA ID: UTD982598898

DOE, Paducah, Paducah

This certificate acknowledges that the following manifested shipments have been disposed of as listed below:

Shipment	Manifest	Disposal Date	Volume (Cu/Ft)	Process	Disposal Location
9750-04-0001	41910	09/28/2018	90.0	Landfill	Mixed Waste

RECEIVED
DEC 06 2018

The total volume above represents the cubic feet of waste disposed of at EnergySolutions' Disposal Facility Landfill. Disposal is subject to EnergySolutions' Radioactive Material License, all other applicable licenses, permits and regulations, and the Disposal Agreement.

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Brian Beynon
Oct 5 2018 8:55 AM

Brian Beynon
Operations Manager

cosign
Date

ENERGYSOLUTIONS

CERTIFICATE OF DISPOSAL

3 miles South, Exit 49, I-80
Clive, Utah 84029
EPA ID: UTD982598898

DOE, Paducah, Paducah

This certificate acknowledges that the following manifested shipments have been disposed of as listed below:

Shipment	Manifest	Disposal Date	Volume (Cu/Ft)	Process	Disposal Location
9750-05-0001	41911	06/29/2018	30.0	Landfill	Mixed Waste

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Brian Beynon
Jun 29 2018 11:25 AM

cosign

Brian Beynon
Operations Manager

Date

ENERGYSOLUTIONS

CERTIFICATE OF DISPOSAL

3 miles South, Exit 49, I-80
Clive, Utah 84029
EPA ID: UTD982598898

DOE, Paducah, Paducah

This certificate acknowledges that the following manifested shipments have been disposed of as listed below:

Shipment	Manifest	Disposal Date	Volume (Cu/Ft)	Process	Disposal Location
9750-04-0002	41935	12/20/2018	22.5	Landfill	Mixed Waste

RECEIVED
DEC 31 2018
BY:

The total volume above represents the cubic feet of waste disposed of at EnergySolutions' Disposal Facility Landfill. Disposal is subject to EnergySolutions' Radioactive Material License, all other applicable licenses, permits and regulations, and the Disposal Agreement.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true, accurate and complete. As to the identification section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.

Brian Beynon
Dec 28 2018 11:25 AM

Brian Beynon
Operations Manager

cosign
Date

ENERGYSOLUTIONS

CERTIFICATE OF DISPOSAL

3 miles South, Exit 49, I-80
Clive, Utah 84029
EPA ID: UTD982598898

DOE, Paducah, Paducah

This certificate acknowledges that the following manifested shipments have been disposed of as listed below:

Shipment	Manifest	Disposal Date	Volume (Cu/Ft)	Process	Disposal Location
9750-03-0001	41913	12/20/2018	7.5	Landfill	Mixed Waste R
9750-03-0002	41926	12/20/2018	0.8	Landfill	Mixed Waste RT
9750-03-0003	41934	12/20/2018	45.0	Landfill	Mixed Waste R

RECEIVED
DEC 31 2018
BY:

The total volume above represents the cubic feet of waste disposed of at EnergySolutions' Disposal Facility Landfill. Disposal is subject to EnergySolutions' Radioactive Material License, all other applicable licenses, permits and regulations, and the Disposal Agreement.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true, accurate and complete. As to the identification section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.

Brian Beynon
Dec 28 2018 11:25 AM

Brian Beynon
Operations Manager

cosign
Date

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APPENDIX C

PCB WASTE STORAGE AREA INSPECTION RECORDS

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PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
C-331					
	G-331-PCB-01	1/10/2018	☐	☑	
	G-331-PCB-01	1/23/2018	☐	☑	
	G-331-PCB-01	2/21/2018	☐	☑	
	G-331-PCB-01	3/21/2018	☐	☑	
	G-331-PCB-01	4/18/2018	☐	☑	
	G-331-PCB-01	5/16/2018	☐	☑	
	G-331-PCB-01	6/13/2018	☐	☑	

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
	G-331-PCB-01	7/18/2018	☐	☑	Supplemental inspection information demonstrating continued compliance with 40 CFR 761.65(c)(5) 30 day inspection requirement has been documented and added to inspection records.
	G-331-PCB-01	8/16/2018	☐	☑	
	G-331-PCB-01	9/13/2018	☐	☑	
	G-331-PCB-01	10/10/2018	☐	☑	
	G-331-PCB-01	11/7/2018	☐	☑	
	G-331-PCB-01	12/5/2018	☐	☑	
C-333					
	G-333-PCB-01	1/10/2018	☐	☑	

C-4

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
	G-333-PCB-01	1/23/2018	☐	☑	
C-335					
	G-335-04	1/10/2018	☐	☑	
	G-335-04	1/23/2018	☐	☑	
	G-335-04	2/20/2018	☐	☑	
	G-335-04	3/21/2018	☐	☑	
	G-335-04	4/18/2018	☐	☑	
	G-335-04	5/16/2018	☐	☑	

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
G-335-04		6/13/2018	☐	☑	
G-335-04		7/18/2018	☐	☑	Supplemental inspection information demonstrating continued compliance with 40 CFR 761.65(c)(5) 30 day inspection requirement has been documented and added to inspection records.
G-335-04		8/16/2018	☐	☑	
G-335-04		9/13/2018	☐	☑	
G-335-04		10/10/2018	☐	☑	
G-335-04		11/7/2018	☐	☑	
G-335-04		12/5/2018	☐	☑	

C-6

C-337

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
G-337-02		1/10/2018	☐	☑	
G-337-02		1/23/2018	☐	☑	
G-337-02		2/20/2018	☐	☑	
G-337-02		3/21/2018	☐	☑	
G-337-02		4/18/2018	☐	☑	
G-337-02		5/16/2018	☐	☑	
G-337-02		6/13/2018	☐	☑	
G-337-02		7/18/2018	☐	☑	Supplemental inspection information demonstrating continued compliance with 40 CFR 761.65(c)(5) 30 day inspection requirement has been documented and added to inspection records.

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
G-337-02		8/16/2018	☐	☑	
G-337-02		9/13/2018	☐	☑	
G-337-02		10/10/2018	☐	☑	
G-337-02		11/7/2018	☐	☑	
G-337-02		12/5/2018	☐	☑	
G-337-03		1/10/2018	☐	☑	
G-337-03		1/23/2018	☐	☑	
G-337-03		2/20/2018	☐	☑	

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
G-337-03		3/21/2018	☐	☑	
G-337-03		4/18/2018	☐	☑	
G-337-03		5/16/2018	☐	☑	
G-337-03		6/13/2018	☐	☑	
G-337-03		7/18/2018	☐	☑	Supplemental inspection information demonstrating continued compliance with 40 CFR 761.65(c)(5) 30 day inspection requirement has been documented and added to inspection records.
G-337-03		8/16/2018	☐	☑	
G-337-03		9/13/2018	☐	☑	
G-337-03		10/10/2018	☐	☑	

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
G-337-03		11/7/2018	☐	☑	
G-337-03		12/5/2018	☐	☑	
G-337-05		1/10/2018	☐	☑	
G-337-05		1/23/2018	☐	☑	
G-337-05		2/20/2018	☐	☑	
G-337-05		3/21/2018	☐	☑	
G-337-05		4/18/2018	☐	☑	
G-337-05		5/16/2018	☐	☑	

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
G-337-05		6/13/2018	☐	☑	
G-337-05		7/18/2018	☐	☑	Supplemental inspection information demonstrating continued compliance with 40 CFR 761.65(c)(5) 30 day inspection requirement has been documented and added to inspection records.
G-337-05		8/16/2018	☐	☑	
G-337-05		9/13/2018	☐	☑	
G-337-05		10/10/2018	☐	☑	
G-337-05		11/7/2018	☐	☑	
G-337-05		12/5/2018	☐	☑	
G-337-PCB-02		1/10/2018	☐	☑	

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
G-337-PCB-02		1/23/2018	☐	☑	
G-337-PCB-02		2/20/2018	☐	☑	
G-337-PCB-02		3/21/2018	☐	☑	
G-337-PCB-02		4/18/2018	☐	☑	
G-337-PCB-02		5/16/2018	☐	☑	
G-337-PCB-02		6/13/2018	☐	☑	
G-337-PCB-02		7/18/2018	☐	☑	Supplemental inspection information demonstrating continued compliance with 40 CFR 761.65(c)(5) 30 day inspection requirement has been documented and added to inspection records.
G-337-PCB-02		8/16/2018	☐	☑	

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
	G-337-PCB-02	9/13/2018	☐	☑	
	G-337-PCB-02	10/10/2018	☐	☑	
	G-337-PCB-02	11/7/2018	☐	☑	
	G-337-PCB-02	12/5/2018	☐	☑	
C-733					
	C-733	1/17/2018	☐	☑	
	C-733	2/13/2018	☐	☑	
	C-733	3/13/2018	☐	☑	

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PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
C-733		4/11/2018	☐	☑	
C-733		5/8/2018	☐	☑	
C-733		5/29/2018	☐	☑	
C-733		6/19/2018	☐	☑	
C-733		7/17/2018	☐	☑	
C-733		8/14/2018	☐	☑	
C-733		9/10/2018	☐	☑	
C-733		10/9/2018	☐	☑	

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
	C-733	11/6/2018	☐	☑	
	C-733	12/4/2018	☐	☑	
C-746-Q					
	C-746-Q	1/17/2018	☐	☑	
	C-746-Q	2/13/2018	☐	☑	
	C-746-Q	3/13/2018	☐	☑	
	C-746-Q	4/11/2018	☐	☑	
	C-746-Q	5/8/2018	☐	☑	

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
C-746-Q		5/29/2018	☐	☑	
C-746-Q		6/19/2018	☐	☑	
C-746-Q		7/17/2018	☐	☑	
C-746-Q		8/14/2018	☐	☑	
C-746-Q		9/10/2018	☐	☑	
C-746-Q		10/9/2018	☐	☑	
C-746-Q		11/6/2018	☐	☑	
C-746-Q		12/4/2018	☐	☑	

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
C-752-A					
	C-752-A	1/17/2018	☐	☑	
	C-752-A	2/13/2018	☐	☑	
	C-752-A	3/13/2018	☐	☑	
	C-752-A	4/11/2018	☐	☑	
	C-752-A	5/7/2018	☐	☑	
	C-752-A	5/29/2018	☐	☑	
	C-752-A	6/19/2018	☐	☑	

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
	C-752-A	7/17/2018	☐	☑	
	C-752-A	8/14/2018	☐	☑	
	C-752-A	9/10/2018	☐	☑	
	C-752-A	10/9/2018	☐	☑	
	C-752-A	11/6/2018	☐	☑	
	C-752-A	12/4/2018	☐	☑	
C-753-A					
	C-753-A	1/17/2018	☐	☑	

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
C-753-A		2/13/2018	☐	☑	
C-753-A		3/13/2018	☐	☑	
C-753-A		4/11/2018	☐	☑	
C-753-A		5/8/2018	☐	☑	
C-753-A		5/30/2018	☐	☑	
C-753-A		6/19/2018	☐	☑	
C-753-A		7/17/2018	☐	☑	
C-753-A		8/14/2018	☐	☑	

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
	C-753-A	9/10/2018	☐	☑	
	C-753-A	10/9/2018	☐	☑	
	C-753-A	11/6/2018	☐	☑	
	C-753-A	12/4/2018	☐	☑	
C-757					
	G-757-03	1/10/2018	☐	☑	
	G-757-03	1/23/2018	☐	☑	
	G-757-03	2/21/2018	☐	☑	

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
G-757-03		3/21/2018	☐	☑	
G-757-03		4/18/2018	☐	☑	
G-757-03		5/17/2018	☐	☑	
G-757-03		6/13/2018	☐	☑	
G-757-03		7/18/2018	☐	☑	Supplemental inspection information demonstrating continued compliance with 40 CFR 761.65(c)(5) 30 day inspection requirement has been documented and added to inspection records.
G-757-03		8/16/2018	☐	☑	
G-757-03		9/13/2018	☐	☑	
G-757-03		10/10/2018	☐	☑	

PCB Waste Inspection Summary Report

Building	Area	Date Inspected	Leaks Yes	Leaks No	Comments
G-757-03		11/7/2018	☐	☑	
G-757-03		12/5/2018	☐	☑	

APPENDIX D

PCB WASTE INVENTORY TABLES

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TABLES

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Table D.1. Corrections and Adjustments to the December 31, 2017, Inventory

Adj	RFD	Waste ID	PCB Item	Description	PCB Date	Physical	Gross Wt (kg)	Source	Waste Cat	Comments
0	121277	121277-01	PCB Article Container	PCB LIGHT BALLASTS/TRANSFORMERS/CAPACITORS	10/4/2017	Solid (S)	91	Various	TSCA MIXED (TM)	Weight changed from 91 kg to 183 kg
0	121072	121072-01	PCB Container	SPILL CLEANUP FROM VENT DUCT TROUGHS	5/11/2017	S	3	C-331	TM	Weight changed from 48 kg to 51 kg
0	121073	121073-01	PCB Container	VENTILATION DUCT OIL AND WATER C-331	4/25/2017	Liquid (L)	36	C-331	TM	Weight changed from 108 kg to 144 kg
0	121074	121074-01	PCB Container	SPILL CLEANUP FROM VENT DUCT TROUGHS	5/15/2017	S	12	C-333	TM	Weight changed from 47 kg to 59 kg
0	121076	121076-02	PCB Container	SPILL CLEANUP FROM VENT DUCT TROUGHS	10/19/2017	S	7	C-335	TM	Weight changed from 37 kg to 44 kg
0	121077	121077-06	PCB Container	VENTILATION DUCT OIL AND WATER	5/9/2017	L	10	C-335	TM	Weight changed from 198 kg to 208 kg
0	121078	121078-04	PCB Container	SPILL CLEANUP DEBRIS	11/29/2017	S	24	C-337	TM	Weight changed from 24 kg to 47 kg
0	121079	121079-04	PCB Container	PCB VENTILATION DUCT OIL AND WATER	5/9/2017	L	184	C-337	TM	Weight changed from 32 kg to 216 kg
1	121255	121255-02*	PCB Container	LUBE OIL/PCB RINSEATE COLLECTED IN SIGHT GLASSES FROM TRANSFORMER DRAINING, POST-TSCA RINSE	10/10/2017	L	32	C-337	TM	Information received after 2017 report submittal
-1	125151	125151-01	PCB Container	PCB CONTAMINATED PPE, ETC C-400, ZONE 16, J-BOX OIL DRAINING	9/20/2017	S	-29	C-400	RCRA MIXED (RM)	Changed from TSCA LLW to RCRA LLW
TOTAL CORRECTIONS AND ADJUSTMENTS TO THE DECEMBER 31, 2017, INVENTORY:							**369**			

Table D.2. PCB Waste Generated in CY 2018

RFD	Waste ID	PCB Item	Description	PCB Date	Gross Wt (kg)	Physical	Current Facility	Source	Waste Category
121516	121516-01	PCB Article Container	PCB LIGHT BALLASTS/TRANSFORMERS/CAPACITORS/ ETC.	4/25/2018	194	Solid (S)	C-752-A	Various	TSCA MIXED (TM)
121546	121546-01	PCB Article Container	PCB/LEAD CABLE AND POTHEAD	6/27/2018	836	S	C-752-A	Various	RCRA/TSCA Mixed (RTM)
121546	121546-02	PCB Article Container	POTHEADS	8/10/2018	884	S	C-752-A	Various	RTM
121546	121546-03	PCB Article Container	TRANSFORMER POTHEADS	7/25/2018	723	S	C-752-A	Various	RTM
121625	121625-01*	PCB Article Container	PCB LIGHT BALLASTS/TRANSFORMERS/CAPACITORS/ ETC.	8/28/2018	78	S	C-757	Various	TM
121075	121075-02	PCB Container	PCB VENTILATION DUCT OIL AND WATER	1/9/2018	10	Liquid (L)	C-752-ARPK	C-333	TM
121423	121423-01	PCB Container	VENTILATION DUCT OIL AND WATER	4/23/2018	216	L	C-752-A	Proc Bldgs	TM
121423	121423-02	PCB Container	VENTILATION DUCT OIL AND WATER	6/13/2018	202	L	C-752-A	Proc Bldgs	TM
121423	121423-03	PCB Container	VENTILATION DUCT OIL AND WATER	9/25/2018	226	L	C-752-A	Proc Bldgs	TM
121423	121423-04*	PCB Container	VENTILATION DUCT OIL AND WATER	11/1/2018	92	L	C-752-A	Proc Bldgs	TM
121424	121424-01	PCB Container	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	3/20/2018	14	S	C-335-RPK	Proc Bldgs	TM
121424	121424-02	PCB Container	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	4/18/2018	50	S	C-752-A	Proc Bldgs	TM
121424	121424-03	PCB Container	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	6/7/2018	53	S	C-752-A	Proc Bldgs	TM
121424	121424-04	PCB Container	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	8/9/2018	52	S	C-752-A	Proc Bldgs	TM
121424	121424-05	PCB Container	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	9/5/2018	48	S	C-752-A	Proc Bldgs	TM
121424	121424-06*	PCB Container	RAG, PANS, PLASTIC, PADS, PPE	11/7/2018	31	S	C-752-A	C-337	TM

Table D.2. PCB Waste Generated in CY 2018 (Continued)

RFD	Waste ID	PCB Item	Description	PCB Date	Gross Wt (kg)	Physical	Current Facility	Source	Waste Category
121548	121548-01	PCB Container	PCB OIL TRANSPORT TANK	6/25/2018	2,939	S	C-752-A	C-746-B	TM
121603	121603-01	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	1,043	L	C-752-ARPK	C-537	TM
121603	121603-02	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	1,043	L	C-752-ARPK	C-537	TM
121603	121603-03	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	680	L	C-752-ARPK	C-537	TM
121603	121603-04	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	197	L	C-752-A	C-537	RCRA/TSCA Non-Rad (RTN)
121603	121603-05	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	201	L	C-752-A	C-537	RTN
121603	121603-06	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	204	L	C-752-A	C-537	RTN
121603	121603-07	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	201	L	C-752-A	C-537	RTN
121603	121603-08	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	197	L	C-752-A	C-537	RTN
121603	121603-09	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	193	L	C-752-A	C-537	RTN

Table D.2. PCB Waste Generated in CY 2018 (Continued)

RFD	Waste ID	PCB Item	Description	PCB Date	Gross Wt (kg)	Physical	Current Facility	Source	Waste Category
121603	121603-10	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	200	L	C-752-A	C-537	RTN
121603	121603-11	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	196	L	C-752-A	C-537	RTN
121603	121603-12	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	200	L	C-752-A	C-537	RTN
121603	121603-13	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	198	L	C-752-A	C-537	RTN
121603	121603-14	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	189	L	C-752-A	C-537	RTN
121603	121603-15	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	195	L	C-752-A	C-537	RTN
121603	121603-16	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	200	L	C-752-A	C-537	RTN
121603	121603-17	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	193	L	C-752-A	C-537	RTN
121603	121603-18	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	192	L	C-752-A	C-537	RTN
121603	121603-19	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	81	L	C-752-A	C-537	RTN

Table D.2. PCB Waste Generated in CY 2018 (Continued)

RFD	Waste ID	PCB Item	Description	PCB Date	Gross Wt (kg)	Physical	Current Facility	Source	Waste Category
121618	121618-01	PCB Container	OIL FILLED DOOR CLOSERS	8/22/2018	333	S	C-752-A	C-400	TM
121618	121618-02	PCB Container	OIL FILLED DOOR CLOSERS	9/5/2018	167	S	C-752-A	C-400	TM
121645	121645-01	PCB Container	UNUSED LAB CHEMICALS	9/27/2018	5	L	C-733	C-710	RTM
TOTAL PCB WASTE GENERATED IN CY 2018:					**12,956**				

Table D.3. Adjustments to the CY 2018 Inventory

Adj	RFD	Waste ID	PCB Item	Description	PCB Date	Physical	Gross Wt (kg)	Source	Waste Cat	Comments
-1	121075	121075-02	PCB Container	PCB VENTILATION DUCT OIL AND WATER	1/9/2018	Liquid (L)	-10	C-333	TSCA MIXED (TM)	Repacked into 121073-01
-1	121077	121077-06	PCB Container	VENTILATION DUCT OIL AND WATER	5/9/2017	L	-208	C-335	TM	Repacked into 121073-01
0	121255	121255-02*	PCB Container	LUBE OIL/PCB RINSEATE COLLECTED IN SIGHT GLASSES FROM TRANSFORMER DRAINING, POST-TSCA RINSE	10/10/2017	L	7	C-337	TM	Generated more waste during 2018
-1	121424	121424-01	PCB Container	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	3/20/2018	Solid (S)	-14	Proc Bldgs	TM	Repacked into 121076-02
-1	121603	121603-01	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	L	-1043	C-537	TM	Repacked into 121603-09
-1	121603	121603-02	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	L	-1043	C-537	TM	Repacked into 121603-15
-1	121603	121603-03	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	L	-680	C-537	TM	Repacked into 121603-19
TOTAL ADJUSTMENTS TO CY 2018 INVENTORY:							**-2992**			

* Collection containers as of December 31, 2018. Weight estimated.

Table D.4. PCB Waste Shipped for Disposal in CY 2018

RFD	Waste ID	PCB Item	Description	PCB Date	Current Facility	Gross Wt (kg)	Physical	Source	Waste Category	Ship Date	Ship Location	Manifest
121053	121053-01	PCB Article Container	PCB BALLASTS, CAPACITORS AND SMALL TRANSFORMERS (COLLECTION)	3/21/2017	C-752-A	49	Solid (S)	Various	TSCA MIXED (TM)	2/20/2018	Energy*Solutions* , Clive, UT	006841911JJK
121084	121084-01	PCB Article Container	PCB BALLASTS/TRANSFORMERS/CAPACITORS	4/25/2017	C-752-A	237	S	Various	TM	2/20/2018	Energy*Solutions* , Clive, UT	006841911JJK
121208	121208-01	PCB Article Container	PCB LIGHT BALLASTS/TRANSFORMERS/CAPACITORS	7/10/2017	C-752-A	164	S	C-757	TM	5/14/2018	Energy*Solutions* , Clive, UT	006841936JJK
121272	121272-01	PCB Article Container	POTHEAD AND PLC CABLE	9/12/2017	C-752-A	818	S	Various	RCRA/TSCA Mixed (RTM)	9/10/2018	Energy*Solutions* , Clive, UT	019694504JJK
121277	121277-01	PCB Article Container	PCB LIGHT BALLASTS/TRANSFORMERS/CAPACITORS	10/4/2017	C-752-A	183	S	Various	TM	9/20/2018	Energy*Solutions* , Clive, UT	019694515JJK
125104	125104-01	PCB Article Container	LIGHT BALLASTS	5/1/2017	C-752-A	1,725	S	C-400	TM	5/14/2018	Energy*Solutions* , Clive, UT	006841936JJK
125105	125105-01	PCB Article Container	PCB BALLASTS (LEAKING)	5/3/2017	C-752-A	200	S	C-400	TM	5/14/2018	Energy*Solutions* , Clive, UT	006841935JJK
125105	125105-02	PCB Article Container	PCB BALLASTS (LEAKING)	5/3/2017	C-752-A	242	S	C-400	TM	5/14/2018	Energy*Solutions* , Clive, UT	006841935JJK
125105	125105-03	PCB Article Container	PCB BALLASTS (LEAKING)	5/15/2017	C-752-A	118	S	C-400	TM	5/14/2018	Energy*Solutions* , Clive, UT	006841935JJK
125127	125127-01	PCB Article Container	CAPACITORS/BALLASTS	6/26/2017	C-752-A	119	S	C-400	TM	5/14/2018	Energy*Solutions* , Clive, UT	006841936JJK
119845	119845-59	PCB Container	PCB ABSORBENTS	4/22/2016	C-752-A	35	S	C-337	TM	2/20/2018	Energy*Solutions* , Clive, UT	006841910JJK
119845	119845-60	PCB Container	PCB ABSORBENTS	10/3/2016	C-752-A	43	S	C-337	TM	2/20/2018	Energy*Solutions* , Clive, UT	006841910JJK
119863	119863-01	PCB Container	PCB CONTAMINATED METAL	6/3/2015	C-752-A	155	S	C-337	TM	2/20/2018	Energy*Solutions* , Clive, UT	006841910JJK
119874	119874-05	PCB Container	PCB ABSORBENTS	10/6/2015	C-752-A	113	S	C-337	TM	2/20/2018	Energy*Solutions* , Clive, UT	006841910JJK
119874	119874-06	PCB Container	PCB ABSORBENTS	9/17/2015	C-752-A	113	S	C-337	TM	2/20/2018	Energy*Solutions* , Clive, UT	006841910JJK
119874	119874-07	PCB Container	PCB ABSORBENTS	12/16/2015	C-752-A	59	S	C-337	TM	2/20/2018	Energy*Solutions* , Clive, UT	006841910JJK

Table D.4. PCB Waste Shipped for Disposal in CY 2018 (Continued)

RFD	Waste ID	PCB Item	Description	PCB Date	Current Facility	Gross Wt (kg)	Physical	Source	Waste Category	Ship Date	Ship Location	Manifest
119874	119874-08	PCB Container	PCB ABSORBENTS	12/17/2015	C-752-A	82	S	C-337	TM	2/20/2018	Energy*Solutions* , Clive, UT	006841910JJK
119874	119874-09	PCB Container	PCB ABSORBENTS	1/22/2016	C-752-A	80	S	C-337	TM	2/20/2018	Energy*Solutions* , Clive, UT	006841910JJK
119874	119874-10	PCB Container	PCB ABSORBENTS	1/29/2016	C-752-A	58	S	C-337	TM	2/20/2018	Energy*Solutions* , Clive, UT	006841910JJK
119874	119874-11	PCB Container	PCB ABSORBENTS	4/8/2016	C-752-A	41	S	C-337	TM	2/20/2018	Energy*Solutions* , Clive, UT	006841910JJK
119874	119874-12	PCB Container	PCB ABSORBENTS	10/17/2016	C-752-A	31	S	C-337	TM	2/20/2018	Energy*Solutions* , Clive, UT	006841910JJK
119881	119881-01	PCB Container	PCB ABSORBENTS	9/3/2015	C-752-A	39	S	C-333	TM	2/20/2018	Energy*Solutions* , Clive, UT	006841910JJK
120906	120906-01	PCB Container	SPILL CLEANUP FROM VENT DUCT TROUGHS FROM C-335	10/18/2016	C-752-A	34	S	C-335	TM	2/20/2018	Energy*Solutions* , Clive, UT	006841911JJK
121072	121072-01	PCB Container	SPILL CLEANUP FROM VENT DUCT TROUGHS	5/11/2017	C-752-A	51	S	C-331	TM	5/14/2018	Energy*Solutions* , Clive, UT	006841936JJK
121073	121073-01	PCB Container	VENTILATION DUCT OIL AND WATER C-331	4/25/2017	C-752-A	144	Liquid (L)	C-331	TM	5/14/2018	DSSI, Inc., Kingston, TN	006841920JJK
121074	121074-01	PCB Container	SPILL CLEANUP FROM VENT DUCT TROUGHS	5/15/2017	C-752-A	59	S	C-333	TM	5/14/2018	Energy*Solutions* , Clive, UT	006841936JJK
121075	121075-01	PCB Container	PCB VENTILATION DUCT OIL AND WATER	4/25/2017	C-752-A	196	L	C-333	TM	5/14/2018	DSSI, Inc., Kingston, TN	006841920JJK
121076	121076-01	PCB Container	SPILL CLEANUP FROM VENT DUCT TROUGHS	4/26/2017	C-752-A	132	S	C-335	TM	5/14/2018	Energy*Solutions* , Clive, UT	006841936JJK
121076	121076-02	PCB Container	SPILL CLEANUP FROM VENT DUCT TROUGHS	10/19/2017	C-752-A	44	S	C-335	TM	5/14/2018	Energy*Solutions* , Clive, UT	006841936JJK
121077	121077-01	PCB Container	VENTILATION DUCT OIL AND WATER	4/26/2017	C-746-Q	205	L	C-335	TM	5/14/2018	DSSI, Inc., Kingston, TN	006841920JJK
121077	121077-02	PCB Container	VENTILATION DUCT OIL AND WATER	5/1/2017	C-746-Q	216	L	C-335	TM	5/14/2018	DSSI, Inc., Kingston, TN	006841920JJK
121077	121077-03	PCB Container	VENTILATION DUCT OIL AND WATER	5/1/2017	C-746-Q	210	L	C-335	TM	5/14/2018	DSSI, Inc., Kingston, TN	006841920JJK
121077	121077-04	PCB Container	VENTILATION DUCT OIL AND WATER	5/1/2017	C-746-Q	207	L	C-335	TM	5/14/2018	DSSI, Inc., Kingston, TN	006841920JJK
121077	121077-05	PCB Container	VENTILATION DUCT OIL AND WATER	5/4/2017	C-746-Q	219	L	C-335	TM	5/14/2018	DSSI, Inc., Kingston, TN	006841920JJK

Table D.4. PCB Waste Shipped for Disposal in CY 2018 (Continued)

RFD	Waste ID	PCB Item	Description	PCB Date	Current Facility	Gross Wt (kg)	Physical	Source	Waste Category	Ship Date	Ship Location	Manifest
121078	121078-01	PCB Container	VENT DUCT SOLIDS	4/25/2017	C-752-A	52	S	C-337	TM	5/14/2018	Energy*Solutions* , Clive, UT	006841936JJK
121078	121078-02	PCB Container	PCB SPILL CLEANUP DEBRIS	10/9/2017	C-752-A	41	S	C-337	TM	5/14/2018	Energy*Solutions* , Clive, UT	006841936JJK
121078	121078-03	PCB Container	SPILL CLEANUP DEBRIS	10/12/2017	C-752-A	42	S	C-337	TM	5/14/2018	Energy*Solutions* , Clive, UT	006841936JJK
121078	121078-04	PCB Container	SPILL CLEANUP DEBRIS	11/29/2017	C-752-A	47	S	C-337	TM	5/14/2018	Energy*Solutions* , Clive, UT	006841936JJK
121079	121079-01	PCB Container	PCB VENTILATION DUCT OIL AND WATER	4/25/2017	C-746-Q	211	L	C-337	TM	5/14/2018	DSSI, Inc., Kingston, TN	006841920JJK
121079	121079-02	PCB Container	PCB VENTILATION DUCT OIL AND WATER	4/27/2017	C-746-Q	218	L	C-337	TM	5/14/2018	DSSI, Inc., Kingston, TN	006841920JJK
121079	121079-03	PCB Container	PCB VENTILATION DUCT OIL AND WATER	7/12/2017	C-752-A	169	L	C-337	TM	5/14/2018	DSSI, Inc., Kingston, TN	006841920JJK
121079	121079-04	PCB Container	PCB VENTILATION DUCT OIL AND WATER	5/9/2017	C-752-A	216	L	C-337	TM	5/14/2018	DSSI, Inc., Kingston, TN	006841920JJK
121161	121161-01	PCB Container	VENT DUCT SOLIDS	3/11/2016	C-752-A	48	S	Proc Bldgs	TM	2/20/2018	Energy*Solutions* , Clive, UT	006841911JJK
121255	121255-01	PCB Container	LUBE OIL/PCB RINSEATE COLLECTED IN SIGHT GLASSES FROM TRANSFORMER DRAINING, POST-TSCA RINSE.	8/23/2017	C-746-Q	224	L	C-337	TM	5/14/2018	DSSI, Inc., Kingston, TN	006841920JJK
121423	121423-01	PCB Container	VENTILATION DUCT OIL AND WATER	4/23/2018	C-752-A	216	L	Proc Bldgs	TM	9/26/2018	Energy*Solutions* , Clive, UT	019694525JJK
121424	121424-02	PCB Container	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	4/18/2018	C-752-A	50	S	Proc Bldgs	TM	9/26/2018	EnergySolutions, Clive, UT	019694524 JJK
121424	121424-03	PCB Container	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	6/7/2018	C-752-A	53	S	Proc Bldgs	TM	9/26/2018	Energy*Solutions* , Clive, UT	019694524 JJK
121424	121424-04	PCB Container	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	8/9/2018	C-752-A	52	S	Proc Bldgs	TM	9/26/2018	Energy*Solutions* , Clive, UT	019694524 JJK
121548	121548-01	PCB Container	PCB OIL TRANSPORT TANK	6/25/2018	C-752-A	2,939	S	C-746-B	TM	7/31/2018	Energy*Solutions* , Clive, UT	006841943JJK
121603	121603-04	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	C-752-A	197	L	C-537	RCRA/TSCA Non-Rad (RTN)	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE

Table D.4. PCB Waste Shipped for Disposal in CY 2018 (Continued)

RFD	Waste ID	PCB Item	Description	PCB Date	Current Facility	Gross Wt (kg)	Physical	Source	Waste Category	Ship Date	Ship Location	Manifest
121603	121603-05	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	C-752-A	201	L	C-537	RTN	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE
121603	121603-06	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	C-752-A	204	L	C-537	RTN	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE
121603	121603-07	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	C-752-A	201	L	C-537	RTN	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE
121603	121603-08	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	C-752-A	197	L	C-537	RTN	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE
121603	121603-09	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	C-752-A	193	L	C-537	RTN	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE
121603	121603-10	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	C-752-A	200	L	C-537	RTN	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE
121603	121603-11	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	C-752-A	196	L	C-537	RTN	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE
121603	121603-12	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	C-752-A	200	L	C-537	RTN	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE
121603	121603-13	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	C-752-A	198	L	C-537	RTN	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE
121603	121603-14	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	C-752-A	189	L	C-537	RTN	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE
121603	121603-15	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	C-752-A	195	L	C-537	RTN	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE
121603	121603-16	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	C-752-A	200	L	C-537	RTN	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE
121603	121603-17	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	C-752-A	193	L	C-537	RTN	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE

Table D.4. PCB Waste Shipped for Disposal in CY 2018 (Continued)

RFD	Waste ID	PCB Item	Description	PCB Date	Current Facility	Gross Wt (kg)	Physical	Source	Waste Category	Ship Date	Ship Location	Manifest
121603	121603-18	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	C-752-A	192	L	C-537	RTN	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE
121603	121603-19	PCB Container	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	8/8/2018	C-752-A	81	L	C-537	RTN	9/7/2018	Clean Harbors Deer Park, LaPorte, TX	011797542FLE
125118	125118-01	PCB Container	SAMPLE RETURNS FROM C-400	6/6/2017	C-752-A	7	S	C-400	RTM	5/31/2018	Energy*Solutions* , Clive, UT	006841926JJK
125150	125150-01	PCB Container	PCB OIL FROM C-400 ZONE, 16 J-BOX	9/19/2017	C-752-A	144	L	C-400	TM	8/23/2018	DSSI, Inc., Kingston, TN	006841953JJK
125150	125150-02	PCB Container	PCB OIL FROM C-400 ZONE 16, J-BOX	9/20/2017	C-752-A	142	L	C-400	TM	8/23/2018	DSSI, Inc., Kingston, TN	006841953JJK
TOTAL PCB WASTE SHIPPED FOR DISPOSAL IN CY 2018:						**14,325**						

Table D.5. PCB Waste Inventory as of December 31, 2018

RFD	Waste ID	PCB Item	Description	PCB Date	Physical	Gross Wt (kg)	Current Facility	Source	Waste Category
106744	106744-01	PCB Article	DAMAGED, DISCONNECTED, DE-ENERGIZED, AND DRAINED PCB TRANSFORMER B983126. FORMERLY STAGE AT C-337 U2C3 "B" LOCATION.	11/7/2005	Solid (S)	15,649	C-337	C-337	TSCA MIXED (TM)
107839	107839-01	PCB Article	DAMAGED, DISCONNECTED, DE-ENERGIZED, AND DRAINED PCB TRANSFORMER RHL-0610. FORMERLY STAGED AT C-337 U2C8 "B" LOCATION.	6/27/2004	S	17,146	C-337	C-337	TM
121516	121516-01	PCB Article Container	PCB LIGHT BALLASTS/TRANSFORMERS/CAPACITORS/ETC	4/25/2018	S	194	C-752-A	Various	TM
121546	121546-01	PCB Article Container	PCB/LEAD CABLE AND POTHEAD	6/27/2018	S	836	C-752-A	Various	RCRA/TSCA Mixed (RTM)
121546	121546-02	PCB Article Container	POTHEADS	8/10/2018	S	884	C-752-A	Various	RTM
121546	121546-03	PCB Article Container	TRANSFORMER POTHEADS	7/25/2018	S	723	C-752-A	Various	RTM
121625	121625-01*	PCB Article Container	PCB LIGHT BALLASTS/TRANSFORMERS/CAPACITORS/ETC.	8/28/2018	S	78	C-757	Various	TM
121255	121255-02*	PCB Container	LUBE OIL/PCB RINSEATE COLLECTED IN SIGHT GLASSES FROM TRANSFORMER DRAINING, POST-TSCA RINSE.	10/10/2017	Liquid (L)	39	C-752-A	C-337	TM
121423	121423-02	PCB Container	VENTILATION DUCT OIL AND WATER	6/13/2018	L	202	C-752-A	Proc Bldgs	TM
121423	121423-03	PCB Container	VENTILATION DUCT OIL AND WATER	9/25/2018	L	226	C-752-A	Proc Bldgs	TM
121423	121423-04*	PCB Container	VENTILATION DUCT OIL AND WATER	11/1/2018	L	92	C-752-A	Proc Bldgs	TM
121424	121424-05	PCB Container	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	9/5/2018	S	48	C-752-A	Proc Bldgs	TM
121424	121424-06*	PCB Container	RAG, PANS, PLASTIC, PADS, PPE	11/7/2018	S	31	C-752-A	C-337	TM
121618	121618-01	PCB Container	OIL FILLED DOOR CLOSERS	8/22/2018	S	333	C-752-A	C-400	TM
121618	121618-02	PCB Container	OIL FILLED DOOR CLOSERS	9/5/2018	S	167	C-752-A	C-400	TM
121645	121645-01	PCB Container	UNUSED LAB CHEMICALS	9/27/2018	L	5	C-733	C-710	RTM
			TOTAL PCB WASTE INVENTORY AS OF DECEMBER 31, 2018:			**36,653**			

* Collection containers as of December 31, 2018. Weight estimated.