



Department of Energy

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JUN 25 2019

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PPPO-02-5604974-19B

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Dear Ms. Leff and Mr. Feely:

TRANSMITTAL OF THE TOXIC SUBSTANCES CONTROL ACT COMPLIANCE AGREEMENT 2018 ANNUAL COMPLIANCE AGREEMENT REPORT FOR THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, JANUARY 1 THROUGH DECEMBER 31, 2018, FRNP-RPT-0091

Please find enclosed the subject report for the U.S. Department of Energy Paducah Site. This annual report is required under the Toxic Substances Control Act (TSCA) Compliance Agreement (CA), as modified on May 30, 2017. This report documents progress on TSCA CA activities at Paducah, Kentucky, for the period from January 1, 2018, through December 31, 2018.

If you have any questions or require additional information, please contact Tracey Duncan at (270) 441-6682.

Sincerely,

A handwritten signature in cursive script that reads "Jennifer Woodard".

Jennifer Woodard
Paducah Site Lead
Portsmouth/Paducah Project Office

Enclosure:

Annual Compliance Agreement Report, FRNP-RPT-0091

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**Annual Compliance Agreement Report for the
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky,
January 1 through December 31, 2018**



This document is approved for public release per review by:


FRNP Classification Support

6-20-19
Date

**Annual Compliance Agreement Report for the
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky,
January 1 through 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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PREFACE

The U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA) entered into the Toxic Substances Control Act (TSCA) Compliance Agreement (CA) to address TSCA compliance at the Paducah, Portsmouth, and Oak Ridge uranium enrichment (UE) facilities. This agreement, signed on February 20, 1992, was intended to bring DOE's UE facilities into full compliance with the TSCA regulations for the management of polychlorinated biphenyls (PCBs). This agreement was modified on September 25, 1997, and modified again on May 30, 2017. At the Paducah facility, the TSCA CA addresses the following:

- Troughing of ventilation duct gaskets;
- Investigation of historic PCB disposal sites;
- Use and removal of leaking potential PCB devices;
- Sampling of air;
- Process lubrication oil;
- Process lubrication oil removal;
- Spill cleanup;
- Storage of PCB waste;
- Building demolition wastes;
- PCB-contaminated slabs;
- Processing of PCB-contaminated demolition material;
- Nonradioactive PCBs and PCB Item storage and disposal;
- Co-contaminated, radioactive PCBs and PCB Items storage and disposal;
- Ensurance of worker safety measures; and
- Hydraulic systems at Paducah Gaseous Diffusion Plant.

This Annual CA Report summarizes TSCA CA activities that occurred at the Paducah facility from January 1 through December 31, 2018.

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ACRONYMS

CA	Compliance Agreement
<i>CFR</i>	<i>Code of Federal Regulations</i>
CY	calendar year
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
PGDP	Paducah Gaseous Diffusion Plant
PPE	personal protective equipment
TSCA	Toxic Substances Control Act
TSDF	treatment, storage, and disposal facility
UE	Uranium Enrichment

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EXECUTIVE SUMMARY

This Annual Compliance Agreement (CA) Report summarizes the Toxic Substances Control Act (TSCA) CA activities that occurred at the Paducah facility from January 1 through December 31, 2018.

During calendar year 2018, the Paducah facility continued to address the ongoing elements identified in the TSCA CA as required by the modified agreement.

The TSCA CA requires the Paducah facility to conduct the interim measure of performing annual air sampling as required by Attachment 1, Section 1 (D), Air Sampling.

The TSCA CA modification signed on May 30, 2017, requires annual PCB air sampling. The annual air sampling event took place during July in accordance with the TSCA CA Attachment I, Section 1, Interim Measures, (D) Air Sampling. Results for the annual event did not exceed the TSCA CA reporting level of 0.5 $\mu\text{g}/\text{m}^3$.

The TSCA CA also includes the following open compliance measures:

- Section 2 (C)—Spill Cleanup
- Section 2 (D)—Storage for Disposal
- Section 2 (E-1)—Building Demolition Wastes
- Section 2 (E-2)—PCB-contaminated Slabs
- Section 2 (E-3)—Processing for the On-Site Waste Disposal Facility
- Section 2 (F)—Other Wastes
 - Nonradioactive PCBs and PCB Items
 - Co-contaminated; and radioactive PCBs and PCB Items.

Six PCB gasket spills and one non-gasket spill were cleaned and closed in accordance with the standards set forth in the TSCA CA Attachment I, Section 2, Compliance Measures, (C) Spill Cleanup. Five gasket and six non-gasket spills were closed as historic spills in accordance with measures proposed and accepted at previous TSCA FFCA Annual Meetings.

The Paducah facility shipped for disposal a net weight of approximately 2,631 kg of TSCA-regulated PCB/nonradioactive waste on one Uniform Hazardous Waste Manifest. The Paducah facility shipped for disposal a net weight of approximately 9,298 kg of TSCA-regulated PCB/radioactive waste on 12 Uniform Hazardous Waste Manifests. Fourteen Certificates of Disposal were received in 2018.

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INTEGRATED SCHEDULE SUMMARY

In accordance with paragraph 36 of the TSCA CA an annual update on the status of each item on the Integrated Schedule is provided. The Integrated Schedule for fiscal year (FY) 2018, submitted in July 2018, included four ongoing activities, and six activities are scheduled to begin work in the future.

Section 1 (D), Air Sampling, is an ongoing effort and work scheduled for calendar year (CY) 2018 was completed (see Section 1.1).

Section 2 (C), Spill Cleanups, is an ongoing effort and work scheduled for CY 2018 was completed (see Section 2.1).

Section 2 (E-1), Building Demolition Waste, is an ongoing effort, but during CY 2018 there were no scheduled activities related to this item.

Section 2 (E-2), PCB-contaminated slab management/demolition, is an ongoing effort on the Paducah Site. Currently, there are two PCB-contaminated slabs managed on-site; scheduled activities regarding these slabs were completed for CY 2018 (see Section 2.2.2).

The following six activities also are included in the Integrated Schedule.

- (1) No decision has been made for the Paducah facility regarding the On-Site Waste Disposal Facility; therefore, there were no scheduled activities related to the design phase of the potential On-Site Waste Disposal Facility. Currently, work associated with this schedule item is scheduled beyond fiscal year (FY) 2020.
- (2) No decision has been made for the Paducah facility regarding the On-Site Waste Disposal Facility; therefore, there were no scheduled activities related to the construction phase for the first cell of the potential On-Site Waste Disposal Facility during CY 2018. Currently, work associated with this item is scheduled beyond FY 2020.
- (3) The waste staging and processing/resizing operations have not been determined to be necessary for the Paducah facility; therefore, there were no scheduled activities related to the design phase during the CY 2018. Currently, work associated with this item is scheduled beyond FY 2020.
- (4) The waste staging and processing/resizing operations have not been determined to be necessary for the Paducah facility; therefore, there were no scheduled activities related to the construction phase during the CY 2018. Currently, work associated with this item is scheduled beyond FY 2020.
- (5) None of the buildings listed in paragraph 11 of the TSCA CA had any demolition activities associated with them during CY 2018. The C-400 Complex demolition that was slated to start in November 2018 has been delayed due to regulatory disputes under the Federal Facility Agreement. The disputes are currently with the Senior Executive Committee for resolution. Currently, work associated with other buildings related to this schedule item is scheduled beyond FY 2020.
- (6) During CY 2018, no PCB-contaminated slab demolition was scheduled. Currently, work associated with this item is scheduled beyond FY 2020.

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1. INTERIM MEASURES

1.1 AIR SAMPLING

Both the original Uranium Enrichment (UE) Toxic Substances Control Act (TSCA) Compliance Agreement (CA) and the TSCA CA modification signed on May 30, 2017, require polychlorinated biphenyl (PCB) air sampling to be conducted in process buildings with motor exhaust duct ventilation systems. These buildings include the C-331, C-333, C-335, and C-337 process buildings at the Paducah facility.

The TSCA CA modification signed on May 30, 2017, requires two samples per process building to be taken once annually anytime during the months of June, July, and August. For each annual air monitoring activity in a building, there will be a best engineering judgement-selected site and a randomly selected site. The results for the 2018 PCB air sampling event are shown in Table 1.

The U.S. Department of Energy (DOE) is required to report to the U.S. Environmental Protection Agency (EPA) any PCB concentrations greater than $0.5 \mu\text{g}/\text{m}^3$ measured from any air monitoring sampler at any location.

The sampling was conducted as described in National Institute for Occupational Safety and Health 5503. The volumes and flow rates, as noted, were necessary to achieve the detection limit required by the TSCA CA.

2. COMPLIANCE MEASURES

2.1 SPILL CLEANUP

The TSCA CA requires that PCB spills and PCB-contaminated oil that may leak onto building floors be cleaned in accordance with the EPA PCB Spill Cleanup Policy in 40 *CFR* § 761, Subpart G. Reports documenting PCB spills and PCB spill cleanup measures are required to be prepared each quarter and summarized in this Annual Compliance Agreement Report. Record copies of cleanup documentation are kept on-site and are available for inspection.

The TSCA CA allows historic spills, those that occurred before March 19, 1992, to be left in place until demolition of the facility. PCB high-concentration gasket spills (i.e., from a source of 500 parts per million or greater in PCB concentration) that occurred to building floors after March 19, 1992, shall be verified closed in accordance with the requirements of the TSCA CA.

Table 1. PCB Air Results Annual CY 2018

Sample Numbers	Sample Date	Building	Floor	Sample Location	Method of Selection	Results (µg/m³)	Pump Flow Rate (liters/minute)	Air Volume Sampled (liters)
PCB18-AIR-01-01	8/22/2018	C-331	GROUND	SW of Y-9	RANDOM	0.050	1.03	515
PCB18-AIR-01-02	8/22/2018	C-331	GROUND	S of E-29	BEJ	0.270	1.04	522
PCB18-AIR-01-03	8/22/2018	C-333	GROUND	N of MA-15	RANDOM	0.050	1.08	548
PCB18-AIR-01-04	8/22/2018	C-333	GROUND	N of P-12	BEJ	0.030	1.02	515
PCB18-AIR-01-05	8/22/2018	C-335	GROUND	E of U-28	RANDOM	0.030	1.03	517
PCB18-AIR-01-06	8/22/2018	C-335	GROUND	N of G-18	BEJ	0.030	1.02	512
PCB18-AIR-01-07	8/22/2018	C-337	GROUND	At Qa-6	RANDOM	0.060	1.04	520
PCB18-AIR-01-08	8/22/2018	C-337	GROUND	At W-43	BEJ	0.080	1.03	515

The following is a summary of PCB gasket spill activities for CY 2018:

- Remaining PCB gasket spill sites awaiting verification of successful cleaning as of December 31, 2018—12
- Number of new PCB gasket spill sites identified during reporting period—3
- Number of PCB gasket spill sites closed during reporting period—11
- Remaining PCB gasket spill sites awaiting verification of successful cleaning as of December 31, 2018—4
- Number of PCB gasket spill sites closed as a historic spill—5

A quarterly breakdown of PCB gasket spill information can be found in Figure 1.

The following is a summary of PCB non-gasket spill activities for CY 2018:

- Remaining PCB non-gasket spill sites awaiting verification of successful cleaning as of December 31, 2018—23
- Number of new PCB non-gasket spill sites identified during reporting period—2
- Number of PCB non-gasket spill sites closed during reporting period—7
- Remaining PCB non-gasket spill sites awaiting verification of successful cleaning as of December 31, 2018—18
- Number of PCB non-gasket spill sites closed as a historic spill—6

A quarterly breakdown of PCB non-gasket spill information can be found in Figure 2.

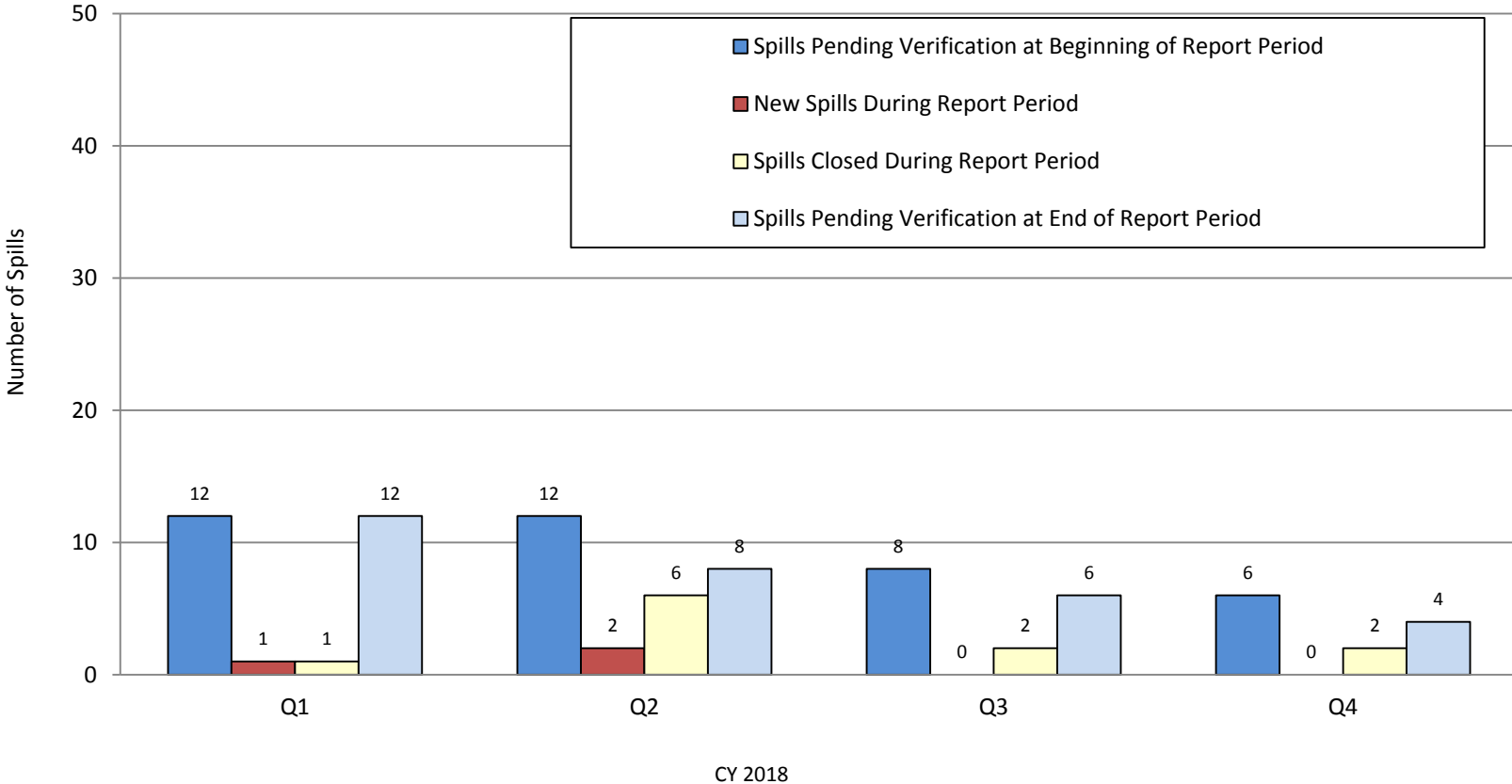
All PCB gasket and non-gasket spills identified were high concentration PCB spills (i.e., from a source of 500 ppm or greater in PCB concentration). Cleanup of each identified spill site was initiated within 24 hours, in accordance with the TSCA CA. Clearly visible signs have been posted at each spill site advising personnel to avoid the area in order to minimize the spread of contamination and the potential for human exposure. The cleanup documentation and the records are available for inspection.

2.2 BUILDING DEMOLITION

2.2.1 Building Demolition Wastes

The TSCA CA requires building demolition wastes comprised of PCBs or PCB Items (as defined in 40 *CFR* § 761.3) to be managed and disposed of as directed in 40 *CFR* § 761.50. In particular, building demolition wastes comprised of PCB-contaminated ventilation ducts, gaskets or flanges, PCB-contaminated piping, or other PCB-contaminated materials containing PCBs as a result of a spill, release, or other unauthorized disposal shall be managed and disposed of as PCB remediation waste in accordance with 40 *CFR* § 761.61. During the CY 2018, no building demolition wastes containing PCB wastes, PCB items, or PCB remediation wastes were generated.

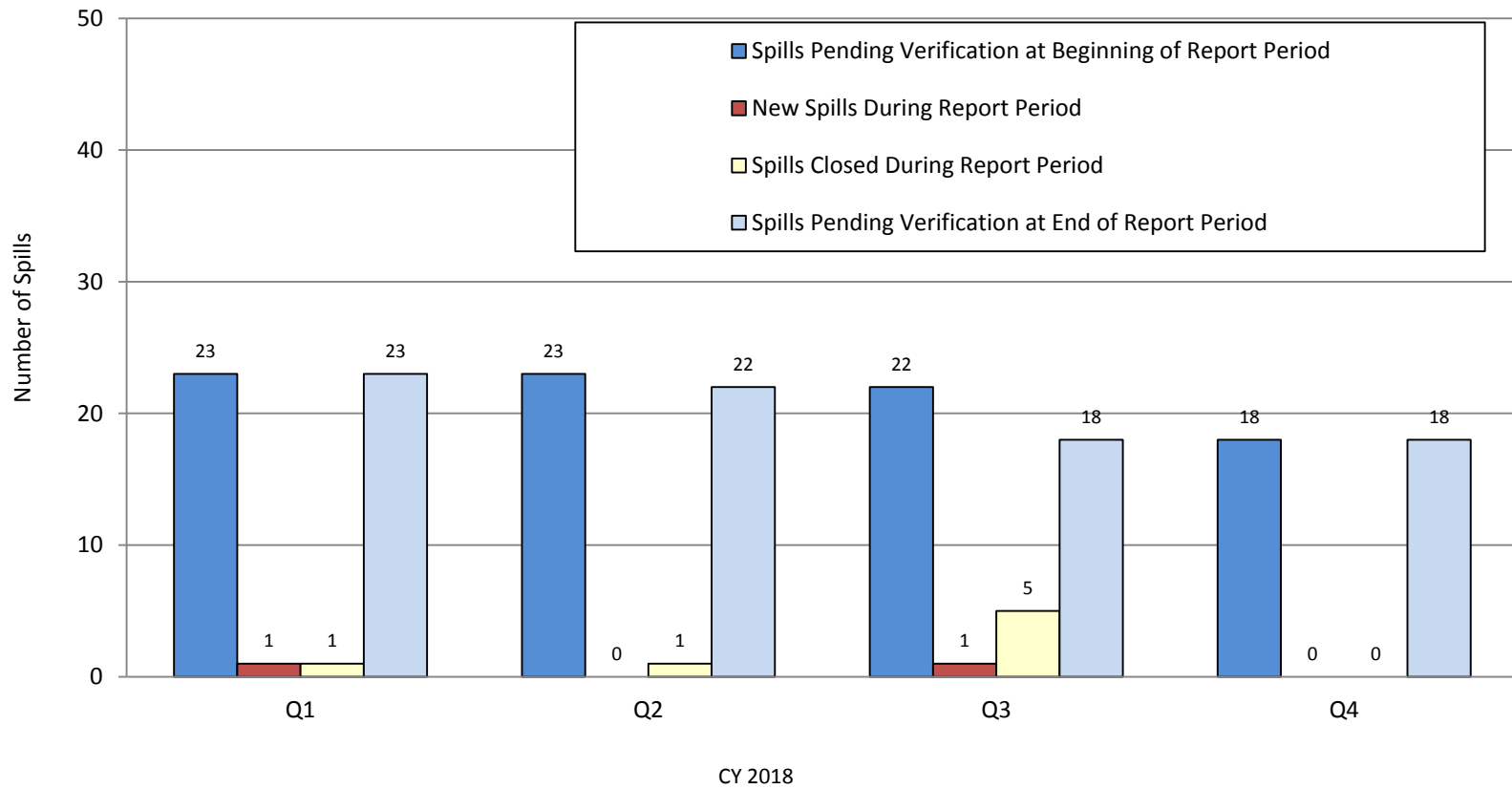
PCB Gasket Spills
January 1 through December 31, 2018



Note: All PCB Gasket Spills are high concentration

Figure 1. Quarterly Summary of PCB Gasket Spills

PCB Non-Gasket Spills
January 1 through December 31, 2018



Note: All PCB Non-Gasket Spills are from high concentration sources

Figure 2. Quarterly Summary of PCB Non-Gasket Spills

2.2.2 PCB-Contaminated Slabs

The TSCA CA requires PCB-contaminated slabs from buildings listed in paragraph 11 of the agreement shall be maintained according to the requirements of 40 *CFR* § 761.30, except that historical spills as defined in Section 2 (C) shall be maintained in accordance with Section 2 (C). The previous demolition of the buildings associated with C-340-A Powder Building, C-340-B Metals Building, C-340-C Slag Building, C-410 Feed Plant, C-410-A Hydrogen Holder (Slab Only), C-410-C HF Neutralization Building, C-410-F HF Storage Building (North), C-410-G HF Storage Building (Center), C-410-H HF Storage (South), C-410-I Ash Receiver Shelter, C-410-J HF Storage Building (East), C-411 Cell Maintenance Building and C-420 Green Salt Building did result in PCB-contaminated slabs. The slabs were double washed and rinsed; and two contrasting colors of epoxy fixative were applied. The documentation of these actions can be found in the documents DOE/LX/07-1286&D1, *Removal Action Report for the C-340 Metals Reduction Plant at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, for C-340 and DOE/LX/07-2182&D1, *Removal Action Report for the C-410 Complex Infrastructure Decontamination and Decommissioning Project at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, for the C-410 complex. No discharges or releases of PCB-contaminated material were detected or reported for the associated slabs for CY 2018.

2.2.3 Processing of PCB-Contaminated Demolition Material for On-Site Waste Disposal

The TSCA CA requires the processing of any PCB-contaminated demolition material before disposal in the On-Site Waste Disposal Facility must be in compliance with 40 *CFR* § 761.20(c). The requirements of this section are not applicable at this time because the On-Site Waste Disposal Facility has not been constructed.

2.3 OTHER WASTES

2.3.1 Nonradioactive PCBs and PCB Items

The TSCA CA requires an annual progress update on the storage and disposal of nonradioactive PCBs and PCB items. At the Paducah facility, PCB waste generated on-site is assumed to contain a radioactive component. After radiological characterization for disposal, Paducah nonradiological PCB waste is stored in accordance with the requirements of the TSCA CA, Attachment I, Section 2(D), “Storage,” 40 *CFR* § 761.65, “Storage for disposal,” and associated concurrences. There were no nonradioactive PCBs or PCB items in the inventory, as of December 31, 2018. Nonradioactively contaminated PCBs and PCB items are shipped for disposal to commercial facilities. During CY 2018, 16 non-radioactive PCBs or PCB items with a net weight of approximately 2,631 kg were shipped off-site for disposal on one hazardous waste manifest.

2.3.2 Co-contaminated, Radioactive PCBs and PCB Items

The TSCA CA requires an annual progress update on the storage and disposal of co-contaminated, radioactive PCB and PCB Items. At the Paducah facility, all PCB waste generated on-site is assumed to contain a radioactive component. Pending radiological characterization for disposal, Paducah radiological PCB waste is stored in accordance with the requirements of the TSCA CA, Attachment I, Section 2(D), “Storage,” 40 *CFR* § 761.65, “Storage for disposal,” and associated concurrences. The inventory, as of December 31, 2018, of radiologically contaminated PCBs and PCB items is reflected in Table 2. Radioactive PCBs and PCB items stored in TSCA-compliant storage areas may be stored for more than

Table 2. PCB Waste Inventory as of December 31, 2018

Waste ID	Description	Earliest Date Removed from Service	Physical	Gross Wt (lb)	Gross Wt (kg)	Net Wt (lb)	Net Wt (kg)	Gross Vol (ft ³)	Current Facility	Source	Waste Cat
106744-01	DAMAGED, DISCONNECTED, DE-ENERGIZED, AND DRAINED PCB TRANSFORMER B983126. FORMERLY STAGED AT C-337 U2C3 "B" LOCATION.	11/7/2005	Solid (S)	34,500	15,649	34,500	15,649	2,304	C-337	C-337	TSCA Mixed (TM)
107839-01	DAMAGED, DISCONNECTED, DE-ENERGIZED, AND DRAINED PCB TRANSFORMER RHL-0610. FORMERLY STAGED AT C-337 U2C8 "B" LOCATION.	6/27/2004	S	37,800	17,146	37,800	17,146	462	C-337	C-337	TM
121255-02*	LUBE OIL/PCB RINSEATE COLLECTED IN SIGHT GLASSES FROM TRANSFORMER DRAINING, POST-TSCA RINSE	10/10/2017	Liquid (L)	87	39	31	14	7.4	C-752-A	C-337	TM
121423-02	VENTILATION DUCT OIL AND WATER	6/13/2018	L	446	202	390	177	7	C-752-A	Proc Bldgs	TM
121423-03	VENTILATION DUCT OIL AND WATER	9/25/2018	L	498	226	442	200	7	C-752-A	Proc Bldgs	TM
121423-04*	VENTILATION DUCT OIL AND WATER	11/1/2018	L	203	92	147	67	7.4	C-752-A	Proc Bldgs	TM
121424-05	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	9/5/2018	S	106	48	50	23	7	C-752-A	Proc Bldgs	TM
121424-06*	RAG, PANS, PLASTIC, PADS, PPE	11/7/2018	S	69	31	13	6	7.4	C-752-A	C-337	TM
121516-01	PCB LIGHT BALLASTS/TRANSFORMERS/CAPACITORS/ETC.	4/25/2018	S	428	194	372	169	7	C-752-A	Various	TM
121546-01	PCB/LEAD CABLE AND POTHEAD	6/27/2018	S	1,842	836	1,039	471	90	C-752-A	Various	RCRA/TSCA Mixed (RTM)
121546-02	POTHEADS	8/10/2018	S	1,948	884	1,145	519	90	C-752-A	Various	RTM
121546-03	TRANSFORMER POTHEADS	7/25/2018	S	1,594	723	793	360	90	C-752-A	Various	RTM
121618-01	OIL FILLED DOOR CLOSERS	8/22/2018	S	734	333	674	306	7	C-752-A	C-400	TM
121618-02	OIL FILLED DOOR CLOSERS	9/5/2018	S	368	167	338	153	4	C-752-A	C-400	TM
121625-01*	PCB LIGHT BALLASTS/TRANSFORMERS/CAPACITORS/ETC.	8/28/2018	S	172	78	116	53	7.4	C-757	Various	TM
121645-01	UNUSED LAB CHEMICALS	9/27/2018	S	10	5	6	3	1	C-733	C-710	RTM
16	Total Container	Totals		80,805	36,653	77,855	35,315	3,107			

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

one year prior to disposal pursuant to 40 *CFR* § 761.65(a)(1). Thirty radioactive PCB waste items did exceed the one-year storage limitation. A summation of the records documenting the efforts to secure disposal of these items can be found in the Appendix.

Radioactively contaminated PCBs and PCB items are shipped for disposal to DOE-owned facilities, Nuclear Regulatory Commission-licensed facilities, or facilities that have received authorized limits approval from DOE and the facility's host state. During CY 2018, 52 co-contaminated, radioactive PCBs or PCB items with a net weight of approximately 9,298 kg were shipped off-site for disposal on 12 hazardous waste manifests.

During CY 2018, one Certificate of Disposal was received for nonradioactive PCBs or PCB waste items, representing a total net weight of approximately 2,631 kg. Also during CY 2018, 13 Certificates of Disposal were received for PCB/radioactive wastes that had been disposed of, representing a total net weight of 27,763 kg of radiologically contaminated PCBs and PCB items. The PCB waste off-site shipping and disposal information for this reporting period is shown in Table 3. Waste generated as a result of site cleanup and operations is included in this report, including Comprehensive, Environmental Response, Compensation, and Liability Act waste, which is provided for information only and is intended to show progress toward removal of PCBs at the Paducah facility.

Table 3. PCB Waste Disposal Activities: Waste Shipped Off-Site and/or Disposed of for CY 2018

Waste ID or Item Quantity	Description	Gross Wt (lb)	Gross Wt (kg)	Net Wt (lb)	Net Wt (kg)	Earliest Date Removed from Service	Date Shipped	Manifest	Shipment No	Disposal Location	Disposal Method	Disposal Date	CoD Rec'd
119845-59	PCB ABSORBENTS	78	35	22	10	4/22/2016	2/20/2018	006841910JJK	9750-04-0001	EnergySolutions , Clive, UT	Landfill	9/28/2018	12/6/2018
119845-60	PCB ABSORBENTS	95	43	39	18	10/3/2016	2/20/2018	006841910JJK	9750-04-0001	EnergySolutions , Clive, UT	Landfill	9/28/2018	12/6/2018
119863-01	PCB CONTAMINATED METAL	341	155	285	129	6/3/2015	2/20/2018	006841910JJK	9750-04-0001	EnergySolutions , Clive, UT	Landfill	9/28/2018	12/6/2018
119874-05	PCB ABSORBENTS	249	113	193	88	10/6/2015	2/20/2018	006841910JJK	9750-04-0001	EnergySolutions , Clive, UT	Landfill	9/28/2018	12/6/2018
119874-06	PCB ABSORBENTS	249	113	193	88	9/17/2015	2/20/2018	006841910JJK	9750-04-0001	EnergySolutions , Clive, UT	Landfill	9/28/2018	12/6/2018
119874-07	PCB ABSORBENTS	129	59	73	33	12/16/2015	2/20/2018	006841910JJK	9750-04-0001	EnergySolutions , Clive, UT	Landfill	9/28/2018	12/6/2018
119874-08	PCB ABSORBENTS	180	82	124	56	12/17/2015	2/20/2018	006841910JJK	9750-04-0001	EnergySolutions , Clive, UT	Landfill	9/28/2018	12/6/2018
119874-09	PCB ABSORBENTS	177	80	121	55	1/22/2016	2/20/2018	006841910JJK	9750-04-0001	EnergySolutions , Clive, UT	Landfill	9/28/2018	12/6/2018
119874-10	PCB ABSORBENTS	128	58	72	33	1/29/2016	2/20/2018	006841910JJK	9750-04-0001	EnergySolutions , Clive, UT	Landfill	9/28/2018	12/6/2018
119874-11	PCB ABSORBENTS	90	41	34	15	4/8/2016	2/20/2018	006841910JJK	9750-04-0001	EnergySolutions , Clive, UT	Landfill	9/28/2018	12/6/2018
119874-12	PCB ABSORBENTS	68	31	12	5	10/17/2016	2/20/2018	006841910JJK	9750-04-0001	EnergySolutions , Clive, UT	Landfill	9/28/2018	12/6/2018
119881-01	PCB ABSORBENTS	86	39	30	14	9/3/2015	2/20/2018	006841910JJK	9750-04-0001	EnergySolutions , Clive, UT	Landfill	9/28/2018	12/6/2018
120906-01	SPILL CLEANUP FROM VENT DUCT TROUGHS FROM C-335	74	34	18	8	10/18/2016	2/20/2018	006841911JJK	9750-05-0001	EnergySolutions , Clive, UT	Landfill	6/29/2018	12/6/2018
121053-01	PCB BALLASTS, CAPACITORS AND SMALL TRANSFORMERS	107	49	51	23	3/21/2017	2/20/2018	006841911JJK	9750-05-0001	EnergySolutions , Clive, UT	Landfill	6/29/2018	12/6/2018
121084-01	PCB BALLASTS/TRANSFORMERS/CAPACITORS	522	237	466	211	4/25/2017	2/20/2018	006841911JJK	9750-05-0001	EnergySolutions , Clive, UT	Landfill	6/29/2018	12/6/2018
121161-01	VENT DUCT SOLIDS	106	48	50	23	3/11/2016	2/20/2018	006841911JJK	9750-05-0001	EnergySolutions , Clive, UT	Landfill	6/29/2018	12/6/2018
121072-01	SPILL CLEANUP FROM VENT DUCT TROUGHS	112	51	56	25	5/11/2017	5/14/2018	006841936JJK	7340-08-0002	EnergySolutions , Clive, UT	Landfill	6/18/2018	7/13/2018
121073-01	VENTILATION DUCT OIL AND WATER C-331	318	144	262	119	4/25/2017	5/14/2018	006841920JJK	DSSI-18-059	DSSI, Inc., Kingston, TN	Incineration	11/13/2018	11/20/2018
121074-01	SPILL CLEANUP FROM VENT DUCT TROUGHS	130	59	74	34	5/15/2017	5/14/2018	006841936JJK	7340-08-0002	EnergySolutions , Clive, UT	Landfill	6/18/2018	7/13/2018
121075-01	PCB VENTILATION DUCT OIL AND WATER	432	196	376	171	4/25/2017	5/14/2018	006841920JJK	DSSI-18-059	DSSI, Inc., Kingston, TN	Incineration	11/13/2018	11/20/2018
121076-01	SPILL CLEANUP FROM VENT DUCT TROUGHS	290	132	234	106	4/26/2017	5/14/2018	006841936JJK	7340-08-0002	EnergySolutions , Clive, UT	Landfill	6/18/2018	7/13/2018
121076-02	SPILL CLEANUP FROM VENT DUCT TROUGHS	96	44	40	18	10/19/2017	5/14/2018	006841936JJK	7340-08-0002	EnergySolutions , Clive, UT	Landfill	6/18/2018	7/13/2018
121077-01	VENTILATION DUCT OIL AND WATER	453	205	397	180	4/26/2017	5/14/2018	006841920JJK	DSSI-18-059	DSSI, Inc., Kingston, TN	Incineration	11/13/2018	11/20/2018
121077-02	VENTILATION DUCT OIL AND WATER	476	216	420	191	5/1/2017	5/14/2018	006841920JJK	DSSI-18-059	DSSI, Inc., Kingston, TN	Incineration	11/13/2018	11/20/2018
121077-03	VENTILATION DUCT OIL AND WATER	463	210	407	185	5/1/2017	5/14/2018	006841920JJK	DSSI-18-059	DSSI, Inc., Kingston, TN	Incineration	11/13/2018	11/20/2018
121077-04	VENTILATION DUCT OIL AND WATER	456	207	400	181	5/1/2017	5/14/2018	006841920JJK	DSSI-18-059	DSSI, Inc., Kingston, TN	Incineration	11/13/2018	11/20/2018
121077-05	VENTILATION DUCT OIL AND WATER	482	219	426	193	5/4/2017	5/14/2018	006841920JJK	DSSI-18-059	DSSI, Inc., Kingston, TN	Incineration	11/13/2018	11/20/2018
121078-01	VENT DUCT SOLIDS	114	52	58	26	4/25/2017	5/14/2018	006841936JJK	7340-08-0002	EnergySolutions , Clive, UT	Landfill	6/18/2018	7/13/2018

Table 3. PCB Waste Disposal Activities: Waste Shipped Off-Site and/or Disposed of for CY 2018 (Continued)

Waste ID or Item Quantity	Description	Gross Wt (lb)	Gross Wt (kg)	Net Wt (lb)	Net Wt (kg)	Earliest Date Removed from Service	Date Shipped	Manifest	Shipment No	Disposal Location	Disposal Method	Disposal Date	CoD Rec'd
121078-02	PCB SPILL CLEANUP DEBRIS	90	41	34	15	10/9/2017	5/14/2018	006841936JJK	7340-08-0002	EnergySolutions , Clive, UT	Landfill	6/18/2018	7/13/2018
121078-03	SPILL CLEANUP DEBRIS	92	42	36	16	10/12/2017	5/14/2018	006841936JJK	7340-08-0002	EnergySolutions , Clive, UT	Landfill	6/18/2018	7/13/2018
121078-04	SPILL CLEANUP DEBRIS	104	47	48	22	11/29/2017	5/14/2018	006841936JJK	7340-08-0002	EnergySolutions , Clive, UT	Landfill	6/18/2018	7/13/2018
121079-01	PCB VENTILATION DUCT OIL AND WATER	466	211	410	186	4/25/2017	5/14/2018	006841920JJK	DSSI-18-059	DSSI, Inc., Kingston, TN	Incineration	11/13/2018	11/20/2018
121079-02	PCB VENTILATION DUCT OIL AND WATER	480	218	424	192	4/27/2017	5/14/2018	006841920JJK	DSSI-18-059	DSSI, Inc., Kingston, TN	Incineration	11/13/2018	11/20/2018
121079-03	PCB VENTILATION DUCT OIL AND WATER	372	169	316	143	7/12/2017	5/14/2018	006841920JJK	DSSI-18-059	DSSI, Inc., Kingston, TN	Incineration	11/13/2018	11/20/2018
121079-04	PCB VENTILATION DUCT OIL AND WATER	476	216	420	191	5/9/2017	5/14/2018	006841920JJK	DSSI-18-059	DSSI, Inc., Kingston, TN	Incineration	11/13/2018	11/20/2018
121208-01	PCB LIGHT BALLASTS/TRANSFORMERS/CAPACITORS	362	164	306	139	7/10/2017	5/14/2018	006841936JJK	7340-08-0002	EnergySolutions , Clive, UT	Landfill	6/18/2018	7/13/2018
121255-01	LUBE OIL/PCB RINSEATE COLLECTED IN SIGHT GLASSES FROM TRANSFORMER DRAINING, POST-TSCA RINSE	493	224	437	198	8/23/2017	5/14/2018	006841920JJK	DSSI-18-059	DSSI, Inc., Kingston, TN	Incineration	11/13/2018	11/20/2018
125104-01	LIGHT BALLASTS	3,802	1,725	3,087	1,400	5/1/2017	5/14/2018	006841936JJK	7340-08-0002	EnergySolutions , Clive, UT	Landfill	6/18/2018	7/13/2018
125105-01	PCB BALLASTS (LEAKING)	442	200	386	175	5/3/2017	5/14/2018	006841935JJK	9750-04-0002	EnergySolutions , Clive, UT	Landfill	12/20/2018	12/31/2018
125105-02	PCB BALLASTS (LEAKING)	534	242	478	217	5/3/2017	5/14/2018	006841935JJK	9750-04-0002	EnergySolutions , Clive, UT	Landfill	12/20/2018	12/31/2018
125105-03	PCB BALLASTS (LEAKING)	260	118	204	93	5/15/2017	5/14/2018	006841935JJK	9750-04-0002	EnergySolutions , Clive, UT	Landfill	12/20/2018	12/31/2018
125127-01	CAPACITORS/BALLASTS	262	119	206	93	6/26/2017	5/14/2018	006841936JJK	7340-08-0002	EnergySolutions , Clive, UT	Landfill	6/18/2018	7/13/2018
125118-01	SAMPLE RETURNS FROM C-400	15	7	6	3	6/6/2017	5/31/2018	006841926JJK	9750-03-0002	EnergySolutions , Clive, UT	Landfill	12/20/2018	12/31/2018
121548-01	PCB OIL TRANSPORT TANK	6,480	2,939	6,300	2,858	6/25/2018	7/31/2018	006841943JJK	7340-08-0003	EnergySolutions , Clive, UT	Landfill	10/5/2018	10/31/2018
125150-01	PCB OIL FROM C-400 ZONE, 16 J-BOX	318	144	262	119	9/19/2017	8/23/2018	006841953JJK	DSSI-18-104	DSSI, Inc., Kingston, TN			
125150-02	PCB OIL FROM C-400 ZONE 16, J-BOX	314	142	258	117	9/20/2017	8/23/2018	006841953JJK	DSSI-18-104	DSSI, Inc., Kingston, TN			
121603-04	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	434	197	378	171	8/8/2018	9/7/2018	011797542FLE	011797542FLE	Clean Harbors Deer Park, LaPorte, TX	Incineration	10/25/2018	11/8/2018
121603-05	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	444	201	388	176	8/8/2018	9/7/2018	011797542FLE	011797542FLE	Clean Harbors Deer Park, LaPorte, TX	Incineration	10/25/2018	11/8/2018
121603-06	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	450	204	394	179	8/8/2018	9/7/2018	011797542FLE	011797542FLE	Clean Harbors Deer Park, LaPorte, TX	Incineration	10/25/2018	11/8/2018
121603-07	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	444	201	388	176	8/8/2018	9/7/2018	011797542FLE	011797542FLE	Clean Harbors Deer Park, LaPorte, TX	Incineration	10/25/2018	11/8/2018
121603-08	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	434	197	378	171	8/8/2018	9/7/2018	011797542FLE	011797542FLE	Clean Harbors Deer Park, LaPorte, TX	Incineration	10/25/2018	11/8/2018
121603-09	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	426	193	370	168	8/8/2018	9/7/2018	011797542FLE	011797542FLE	Clean Harbors Deer Park, LaPorte, TX	Incineration	10/25/2018	11/8/2018

Table 3. PCB Waste Disposal Activities: Waste Shipped Off-Site and/or Disposed of for CY 2018 (Continued)

Waste ID or Item Quantity	Description	Gross Wt (lb)	Gross Wt (kg)	Net Wt (lb)	Net Wt (kg)	Earliest Date Removed from Service	Date Shipped	Manifest	Shipment No	Disposal Location	Disposal Method	Disposal Date	CoD Rec'd
121603-10	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	440	200	384	174	8/8/2018	9/7/2018	011797542FLE	011797542FLE	Clean Harbors Deer Park, LaPorte, TX	Incineration	10/25/2018	11/8/2018
121603-11	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	432	196	376	171	8/8/2018	9/7/2018	011797542FLE	011797542FLE	Clean Harbors Deer Park, LaPorte, TX	Incineration	10/25/2018	11/8/2018
121603-12	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	442	200	386	175	8/8/2018	9/7/2018	011797542FLE	011797542FLE	Clean Harbors Deer Park, LaPorte, TX	Incineration	10/25/2018	11/8/2018
121603-13	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	436	198	380	172	8/8/2018	9/7/2018	011797542FLE	011797542FLE	Clean Harbors Deer Park, LaPorte, TX	Incineration	10/25/2018	11/8/2018
121603-14	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	416	189	360	163	8/8/2018	9/7/2018	011797542FLE	011797542FLE	Clean Harbors Deer Park, LaPorte, TX	Incineration	10/25/2018	11/8/2018
121603-15	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	430	195	374	170	8/8/2018	9/7/2018	011797542FLE	011797542FLE	Clean Harbors Deer Park, LaPorte, TX	Incineration	10/25/2018	11/8/2018
121603-16	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	440	200	384	174	8/8/2018	9/7/2018	011797542FLE	011797542FLE	Clean Harbors Deer Park, LaPorte, TX	Incineration	10/25/2018	11/8/2018
121603-17	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	426	193	370	168	8/8/2018	9/7/2018	011797542FLE	011797542FLE	Clean Harbors Deer Park, LaPorte, TX	Incineration	10/25/2018	11/8/2018
121603-18	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	424	192	368	167	8/8/2018	9/7/2018	011797542FLE	011797542FLE	Clean Harbors Deer Park, LaPorte, TX	Incineration	10/25/2018	11/8/2018
121603-19	PCB CONTAMINATED TRANSFORMER OILS (ELECTRICAL INSULATING OIL) FROM C-537-GT-61 AND C-537-GT-63	178	81	122	55	8/8/2018	9/7/2018	011797542FLE	011797542FLE	Clean Harbors Deer Park, LaPorte, TX	Incineration	10/25/2018	11/8/2018
121272-01	POTHEAD AND PLC CABLE	1,804	818	1,008	457	9/12/2017	9/10/2018	019694504JJK	9750-01-0001	EnergySolutions , Clive, UT	Landfill	9/17/2018	10/23/2018
121277-01	PCB LIGHT BALLASTS/TRANSFORMERS/CAPACITORS	403	183	347	157	10/4/2017	9/20/2018	019694515JJK	7340-08-0004	EnergySolutions , Clive, UT	Landfill	10/5/2018	10/31/2018
121423-01	VENTILATION DUCT OIL AND WATER	476	216	420	191	4/23/2018	9/26/2018	019694525JJK	9750-04-0003	EnergySolutions , Clive, UT			
121424-02	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	110	50	54	24	4/18/2018	9/26/2018	019694524 JJK	9750-05-0002	EnergySolutions , Clive, UT			
121424-03	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	116	53	60	27	6/7/2018	9/26/2018	019694524 JJK	9750-05-0002	EnergySolutions , Clive, UT			
121424-04	SPILL CLEANUP DEBRIS FROM VENT DUCT TROUGHS	114	52	58	26	8/9/2018	9/26/2018	019694524 JJK	9750-05-0002	EnergySolutions , Clive, UT			
68	Total Shipped for CY 2018	31,582	14,325	26,298	11,929								
120357-01	SLUDGE OR SLURRY THAT IS PRIMARY WASTE AND SLUDGE OR SLURRY GENERATED AS SECONDARY WASTE (E.G., DURING DECONTAMINATION EFFORTS).	418	190	362	164	9/15/2016	10/27/2016	006841822JJK	DSSI-16-112	DSSI, Inc., Kingston, TN	Incineration	12/7/2017	1/3/2018
120357-02	SLUDGE OR SLURRY THAT IS PRIMARY WASTE AND SLUDGE OR SLURRY GENERATED AS SECONDARY WASTE (E.G., DURING DECONTAMINATION EFFORTS).	458	208	402	182	9/15/2016	10/27/2016	006841822JJK	DSSI-16-112	DSSI, Inc., Kingston, TN	Incineration	12/7/2017	1/3/2018
120357-03	SLUDGE OR SLURRY THAT IS PRIMARY WASTE AND SLUDGE OR SLURRY GENERATED AS SECONDARY WASTE (E.G., DURING DECONTAMINATION EFFORTS).	422	191	366	166	9/15/2016	10/27/2016	006841822JJK	DSSI-16-112	DSSI, Inc., Kingston, TN	Incineration	12/7/2017	1/3/2018
120357-04	SLUDGE OR SLURRY THAT IS PRIMARY WASTE AND SLUDGE OR SLURRY GENERATED AS SECONDARY WASTE (E.G., DURING DECONTAMINATION EFFORTS).	444	201	388	176	9/15/2016	10/27/2016	006841822JJK	DSSI-16-112	DSSI, Inc., Kingston, TN	Incineration	12/7/2017	1/3/2018

Table 3. PCB Waste Disposal Activities: Waste Shipped Off-Site and/or Disposed of for CY 2018 (Continued)

Waste ID or Item Quantity	Description	Gross Wt (lb)	Gross Wt (kg)	Net Wt (lb)	Net Wt (kg)	Earliest Date Removed from Service	Date Shipped	Manifest	Shipment No	Disposal Location	Disposal Method	Disposal Date	CoD Rec'd
120357-05	SLUDGE OR SLURRY THAT IS PRIMARY WASTE AND SLUDGE OR SLURRY GENERATED AS SECONDARY WASTE (E.G., DURING DECONTAMINATION EFFORTS).	478	217	422	191	9/15/2016	10/27/2016	006841822JJK	DSSI-16-112	DSSI, Inc., Kingston, TN	Incineration	12/7/2017	1/3/2018
120614-01	PCB ARTICLES, WOOD, PUMPS, DRUM VACS	11,440	5,189	3,940	1,787	3/27/2015	5/18/2017	006841867JJK	9701-26-0001	EnergySolutions, Clive, UT	Landfill	12/7/2017	4/4/2018
120543-03	DIELECTRIC FLUID FROM THE AUXILIARY TRANSFORMERS AT THE C-633, C-635, AND C-637 PUMP HOUSES. THE FLUID WILL BE DRAINED AND BULKED INTO CONTAINER OR DIRECTLY INTO TANKERS AS PART OF THE DEACTIVATION SCOPE OF WORK IN THE PUMP HOUSES.	2,626	1,191	2,160	980	11/22/2017	10/12/2017	006843002JJK	ETTP-17-168	M&EC, Oak Ridge, TN	Incineration	2/15/2018	6/22/2018
120543-26	DIELECTRIC FLUID FROM THE AUXILIARY TRANSFORMERS AT THE C-633, C-635, AND C-637 PUMP HOUSES. THE FLUID WILL BE DRAINED AND BULKED INTO CONTAINER OR DIRECTLY INTO TANKERS AS PART OF THE DEACTIVATION SCOPE OF WORK IN THE PUMP HOUSES.	2,792	1,266	2,326	1,055	11/22/2017	10/12/2017	006843007JJK	ETTP-17-171	M&EC, Oak Ridge, TN	Incineration	1/31/2018	6/22/2018
120543-31	DIELECTRIC FLUID FROM THE AUXILIARY TRANSFORMERS AT THE C-633, C-635, AND C-637 PUMP HOUSES. THE FLUID WILL BE DRAINED AND BULKED INTO CONTAINER OR DIRECTLY INTO TANKERS AS PART OF THE DEACTIVATION SCOPE OF WORK IN THE PUMP HOUSES.	2,678	1,215	2,212	1,003	11/22/2017	10/12/2017	006843002JJK	ETTP-17-168	M&EC, Oak Ridge, TN	Incineration	2/15/2018	6/22/2018
120338-03	THIS WASTE CONSISTS OF RECYCLABLE NON-TSCA TRANSFORMER OIL DRAINED FROM THE 3PH3 AUXILIARY TRANSFORMER AT C-633 PUMP HOUSE. ACCORDING TO THE TSCA ANNUAL REPORT, THE PCB CONCENTRATIONS IN THE VARIOUS COMPARTMENTS OF THIS TRANSFORMER VARY BETWEEN 8.1 AND 34	2,596	1,178	2,130	966	11/22/2017	10/12/2017	006843002JJK	ETTP-17-168	M&EC, Oak Ridge, TN	Incineration	1/24/2018	7/6/2018
120338-04	THIS WASTE CONSISTS OF RECYCLABLE NON-TSCA TRANSFORMER OIL DRAINED FROM THE 3PH3 AUXILIARY TRANSFORMER AT C-633 PUMP HOUSE. ACCORDING TO THE TSCA ANNUAL REPORT, THE PCB CONCENTRATIONS IN THE VARIOUS COMPARTMENTS OF THIS TRANSFORMER VARY BETWEEN 8.1 AND 34	2,644	1,199	2,189	993	11/22/2017	10/12/2017	006843005JJK	ETTP-17-169	M&EC, Oak Ridge, TN	Incineration	1/31/2018	7/6/2018
120543-01	DIELECTRIC FLUID FROM THE AUXILIARY TRANSFORMERS AT THE C-633, C-635, AND C-637 PUMP HOUSES. THE FLUID WILL BE DRAINED AND BULKED INTO CONTAINER OR DIRECTLY INTO TANKERS AS PART OF THE DEACTIVATION SCOPE OF WORK IN THE PUMP HOUSES.	2,596	1,178	2,278	1,033	11/22/2017	10/12/2017	006843002JJK	ETTP-17-168	M&EC, Oak Ridge, TN	Incineration	1/24/2018	7/6/2018
120543-07	DIELECTRIC FLUID FROM THE AUXILIARY TRANSFORMERS AT THE C-633, C-635, AND C-637 PUMP HOUSES. THE FLUID WILL BE DRAINED AND BULKED INTO CONTAINER OR DIRECTLY INTO TANKERS AS PART OF THE DEACTIVATION SCOPE OF WORK IN THE PUMP HOUSES.	2,720	1,234	2,254	1,022	11/22/2017	10/12/2017	006843005JJK	ETTP-17-169	M&EC, Oak Ridge, TN	Incineration	1/31/2018	7/6/2018
120543-08	DIELECTRIC FLUID FROM THE AUXILIARY TRANSFORMERS AT THE C-633, C-635, AND C-637 PUMP HOUSES. THE FLUID WILL BE DRAINED AND BULKED INTO CONTAINER OR DIRECTLY INTO TANKERS AS PART OF THE DEACTIVATION SCOPE OF WORK IN THE PUMP HOUSES.	2,750	1,247	2,284	1,036	11/22/2017	10/12/2017	006843006JJK	ETTP-17-170	M&EC, Oak Ridge, TN	Incineration	3/15/2018	7/6/2018
120543-10	DIELECTRIC FLUID FROM THE AUXILIARY TRANSFORMERS AT THE C-633, C-635, AND C-637 PUMP HOUSES. THE FLUID WILL BE DRAINED AND BULKED INTO CONTAINER OR DIRECTLY INTO TANKERS AS PART OF THE DEACTIVATION SCOPE OF WORK IN THE PUMP HOUSES.	1,872	849	1,406	638	11/22/2017	10/12/2017	006843006JJK	ETTP-17-170	M&EC, Oak Ridge, TN	Incineration	1/31/2018	7/6/2018
120543-15	DIELECTRIC FLUID FROM THE AUXILIARY TRANSFORMERS AT THE C-633, C-635, AND C-637 PUMP HOUSES. THE FLUID WILL BE DRAINED AND BULKED INTO CONTAINER OR DIRECTLY INTO TANKERS AS PART OF THE DEACTIVATION SCOPE OF WORK IN THE PUMP HOUSES.	2,636	1,196	2,170	984	11/22/2017	10/12/2017	006843006JJK	ETTP-17-170	M&EC, Oak Ridge, TN	Incineration	3/15/2018	7/6/2018

Table 3. PCB Waste Disposal Activities: Waste Shipped Off-Site and/or Disposed of for CY 2018 (Continued)

Waste ID or Item Quantity	Description	Gross Wt (lb)	Gross Wt (kg)	Net Wt (lb)	Net Wt (kg)	Earliest Date Removed from Service	Date Shipped	Manifest	Shipment No	Disposal Location	Disposal Method	Disposal Date	CoD Rec'd
120543-29	DIELECTRIC FLUID FROM THE AUXILIARY TRANSFORMERS AT THE C-633, C-635, AND C-637 PUMP HOUSES. THE FLUID WILL BE DRAINED AND BULKED INTO CONTAINER OR DIRECTLY INTO TANKERS AS PART OF THE DEACTIVATION SCOPE OF WORK IN THE PUMP HOUSES.	2,814	1,276	2,348	1,065	11/22/2017	10/12/2017	006843002JJK	ETTP-17-168	M&EC, Oak Ridge, TN	Incineration	1/31/2018	7/6/2018
120543-30	DIELECTRIC FLUID FROM THE AUXILIARY TRANSFORMERS AT THE C-633, C-635, AND C-637 PUMP HOUSES. THE FLUID WILL BE DRAINED AND BULKED INTO CONTAINER OR DIRECTLY INTO TANKERS AS PART OF THE DEACTIVATION SCOPE OF WORK IN THE PUMP HOUSES.	2,794	1,267	2,336	1,060	11/22/2017	10/12/2017	006843005JJK	ETTP-17-169	M&EC, Oak Ridge, TN	Incineration	1/24/2018	7/6/2018
120543-32	DIELECTRIC FLUID FROM THE AUXILIARY TRANSFORMERS AT THE C-633, C-635, AND C-637 PUMP HOUSES. THE FLUID WILL BE DRAINED AND BULKED INTO CONTAINER OR DIRECTLY INTO TANKERS AS PART OF THE DEACTIVATION SCOPE OF WORK IN THE PUMP HOUSES.	2,742	1,244	2,276	1,032	11/22/2017	10/12/2017	006843002JJK	ETTP-17-168	M&EC, Oak Ridge, TN	Incineration	1/24/2018	7/6/2018
120543-33	DIELECTRIC FLUID FROM THE AUXILIARY TRANSFORMERS AT THE C-633, C-635, AND C-637 PUMP HOUSES. THE FLUID WILL BE DRAINED AND BULKED INTO CONTAINER OR DIRECTLY INTO TANKERS AS PART OF THE DEACTIVATION SCOPE OF WORK IN THE PUMP HOUSES.	2,796	1,268	2,330	1,057	11/22/2017	10/12/2017	006843002JJK	ETTP-17-168	M&EC, Oak Ridge, TN	Incineration	1/24/2018	7/6/2018
120543-34	DIELECTRIC FLUID FROM THE AUXILIARY TRANSFORMERS AT THE C-633, C-635, AND C-637 PUMP HOUSES. THE FLUID WILL BE DRAINED AND BULKED INTO CONTAINER OR DIRECTLY INTO TANKERS AS PART OF THE DEACTIVATION SCOPE OF WORK IN THE PUMP HOUSES.	846	384	380	172	11/22/2017	10/12/2017	006843007JJK	ETTP-17-171	M&EC, Oak Ridge, TN	Incineration	1/24/2018	7/6/2018
120543-35	DIELECTRIC FLUID FROM THE AUXILIARY TRANSFORMERS AT THE C-633, C-635, AND C-637 PUMP HOUSES. THE FLUID WILL BE DRAINED AND BULKED INTO CONTAINER OR DIRECTLY INTO TANKERS AS PART OF THE DEACTIVATION SCOPE OF WORK IN THE PUMP HOUSES.	2,806	1,273	2,340	1,061	11/22/2017	10/12/2017	006843002JJK	ETTP-17-168	M&EC, Oak Ridge, TN	Incineration	1/24/2018	7/6/2018
120543-36	DIELECTRIC FLUID FROM THE AUXILIARY TRANSFORMERS AT THE C-633, C-635, AND C-637 PUMP HOUSES. THE FLUID WILL BE DRAINED AND BULKED INTO CONTAINER OR DIRECTLY INTO TANKERS AS PART OF THE DEACTIVATION SCOPE OF WORK IN THE PUMP HOUSES.	2,798	1,269	2,343	1,063	11/22/2017	10/12/2017	006843007JJK	ETTP-17-171	M&EC, Oak Ridge, TN	Incineration	1/31/2018	7/6/2018
85	Total Weights for Certificates of Disposal Received for CY 2018	87,300	39,599	66,828	30,313								

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APPENDIX

**WRITTEN RECORD DEMONSTRATING COMPLIANCE
WITH 40 *CFR* § 761.65 (a)(1) REGARDING PCB-MIXED WASTE
CONTAINERS STORED IN EXCESS OF ONE YEAR
PRIOR TO SHIPPING DURING CALENDAR YEAR 2018 AND
ACTIONS TAKEN FOR NONCOMPLIANT PCB-MIXED WASTE
CONTAINER DURING FIRST QUARTER 2019**

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FIRST QUARTER 2018

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**Written Record Demonstrating Compliance
with 40 CFR § 761.65 (a)(1) Regarding PCB-Mixed Waste Containers
Stored in Excess of One Year Prior to Shipping
during First Quarter 2018**

The following radioactively contaminated waste items remain in storage past one year: 119845-59, 119845-60, 119863-01, 119874-05, 119874-06, 119874-07, 119874-08, 119874-09, 119874-10, 119874-11, 119874-12, and 119881-01.

- The characterization of these containers was completed on July 18, 2017, by a Fluor Federal Services, Inc., Paducah Deactivation Project (FPDP) waste engineer with a peer review performed. As a result of this review, the *EnergySolutions* profile 9701-17, PCB Non-Aqueous Liquid Waste Treatment, was selected. The shipment information for these containers was uploaded to *EnergySolutions*' Customer Portal on September 12, 2017, and assigned the shipment number 9701-17-0002. Approval to ship was received on September 12, 2017, at 4:55 p.m.
- A technical representative from *EnergySolutions* contacted FPDP Waste Management (WM) on September 13, 2017, stating that the profile for shipment 9701-17-0002 was in question. FPDP WM stated the profile had been chosen to be conservative because there had been discussion about the possibility of material being squeezed out of the absorbents and becoming free liquids. They informed WM that profile 9701-17 was for vacuum thermal desorption only and did not allow for free liquid verification upon receipt. The representative then said that 9701-21, Wet PCB Remediation Debris, would be a better fit because this material was absorbents and other material from spill cleanup. Reviewing 9701-21 along with the technical representative, WM determined it is written for aqueous-based liquids. *EnergySolutions* personnel then said FPDP would need to revise it, adding that because the revision would involve going from water-based liquid only to including an oil-based liquid the state of Utah would have to review the revision and it would not be a speedy process. He then informed FPDP that the permission to ship these containers was rescinded, and they needed to be removed from the shipment planned for the next day. This occurred just before 4 o'clock.
- The containers were removed from the truck on the morning of September 14, 2017.
- The FPDP Transportation Specialist then revised the shipment information in the Customer Portal to remove these 12 drums.
- Since September 2017, *EnergySolutions* has worked with FPDP and now Four Rivers Nuclear Partnership, LLC, (FRNP) to review and revise numerous profiles.

Additionally two more containers of radioactively contaminated PCB material, 120906-01 and 121161-01, have exceeded one year storage.

- The characterization for these two containers was completed on September 21, 2017, by FPDP WM.
- *EnergySolutions* initiated profile revision on November 22, 2017.
- Profile approved January 2, 2018.
- Containers shipped February 20, 2018.

Eleven of these fourteen containers have PCB date to storage dates that would have exceeded one year in storage at the time of the signing of the latest modification to the UE TSCA CA on May 30, 2017.

Waste items 106744-01 and 107839-01 are faulted transformers that have removed from service dates of November 7, 2005, and June 27, 2004, respectively. Due to their size and the structural/equipment interferences in the process buildings, options for disposal of these items continue to be evaluated.

Backup documentation is kept on file in Technical Services Project Document Control Center.

SECOND QUARTER 2018

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**Written Record Demonstrating Compliance with
40 CFR § 761.65 (a)(1) Regarding PCB-Mixed Waste
Containers in Storage Exceeding One Year Disposal
Requirement during Second Quarter 2018**

The following radioactively contaminated polychlorinated biphenyl (PCB) waste items remained in storage past the one year regulatory time frame specified in 40 CFR § 761.65(a)(1).

Waste items 106744-01 and 107839-01 are faulted transformers that have removed from service dates of November 7, 2005, and June 27, 2004, respectively. Due to their size and the structural/equipment interferences in the process buildings, options for disposal of these items continue to be evaluated.

The remaining containers listed exceeding one year in storage during the second quarter 2018 time frame were broken into two characterization packages: PAD-WD-0583-R1-V9 and PAD-WD-0834-V2.

PAD-WD-0583-R1-V9 includes 121072-01, 121076-01, 121078-01, 125104-01, 125105-01, and 125105-02.

PAD-WD-0834-V2 includes 121073-01, 121075-01, 121077-01, 121077-02, 121077-03, 121077-04, 121077-05, 121079-01, 121079-02, and 121079-04.

The efforts to dispose of these containers are as follows.

- September 13, 2017—Initiated development of characterization package PAD-WD-0834-V2; however, it was not completed prior to Contract transition.
- April 9, 2018—Initiated development of characterization package PAD-WD-0583-R1-V9. Reevaluated and added additional containers to PAD-WD-0834-V2.
- April 13, 2018—U.S. Department of Energy (DOE) announces new indefinite delivery/indefinite quantity (IDIQ) Waste Disposal Contracts 89303318DEM000004 and 89303318DEM000005. Began drafting new funding requests.
- April 16, 2018—Closed and weighed collection containers of PCB solids for characterization package PAD-WD-0583-R1-V9.
- April 17, 2018—Evaluated and weighed collection containers of vent duct liquid associated with characterization package PAD-WD-0834-V2. Container 121077-06 had approximately 20 gal present and was repackaged into 121073-01 and 121079-04. The date to storage (DTS) for 121079-04 was updated to May 9, 2017, to reflect the addition of the new material. Container 121073-01 has a DTS of April 25, 2017, so the DTS does not need to change.
- April 18, 2018—Completed funding request letter FRNP-18-0758, Funding Request for EnergySolutions IDIQ.
- April 19, 2018—Issued Request for Quotes (RFQs) for both PAD-WD-0583-R1-V9 and PAD-WD-0834-V2.

- April 19, 2018—Completed characterization packages for PAD-WD-0583-R1-V9 and PAD-WD-0834-V2.
- April 19, 2018—E-mailed funding request letter FRNP-18-0758 to DOE Contracting Officer Representative (COR) for approval.
- April 20, 2018—Received bids from Perma-Fix. Perma-Fix submitted a bid for PAD-WD-0834-V2, but submitted a “no bid” on PAD-WD-0583-R1-V9.
- April 24, 2018—Received *EnergySolutions* proposal submittal for both bid packages.
- April 30, 2018—Began purchase requisition process.
- April 30, 2018—Notified by DOE Portsmouth/Paducah Project Office (PPPO) that initial funding request letter for *EnergySolutions* IDIQ contract required revision.
- April 30, 2018—Spoke to IDIQ COR, after receiving permission, to understand the preferred format for the funding request letter.
- April 30, 2018—Revised funding letter, as requested.
- May 2, 2018—Submitted revised funding letter FRNP-18-0804 to PPPO.
- May 2, 2018—Obtained approval of funding request letter FRNP-18-0804 via e-mail.
- May 2, 2018—Submitted purchase requisitions for approval.
- May 2, 2018—Initiated calculations and paperwork to schedule shipment of PAD-WD-0834-V2 to Perma-Fix and PAD-WD-0583-R1-V2 to *EnergySolutions*.
- May 3, 2018—Awarded PAD-WD-0583-R1-V9 and purchase order was sent to *EnergySolutions*.
- May 3, 2018—Awarded PAD-WD-0834-V2 and purchase order was sent to Perma-Fix.
- May 7, 2018—Received profile for PAD-WD-0834-V2 from Perma-Fix. Signed profile was e-mailed back to Perma-Fix.
- May 9, 2018—Shipment information and manifest for PAD-WD-0583-R1-V9 uploaded to *EnergySolutions* Customer Portal website.
- May 11, 2018—*EnergySolutions* returned signed purchase order for PAD-WD-0583-R1-V9. Manifest given final review by FRNP shipper and validated in *EnergySolutions* Customer Portal website.
- May 11, 2018—Perma-Fix approves shipment of PAD-WD-0834-V2.
- May 14, 2018—*EnergySolutions* approves shipment of PAD-WD-0583-R1-V9.
- May 14, 2018—PAD-WD-0583-R1-V9 and PAD-WD-0834-V2 shipped.

Backup documentation is kept on file in Technical Services Project Document Control Center.

THIRD QUARTER 2018

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**Written Record Demonstrating Compliance with
40 *CFR* § 761.65 (a)(1) Regarding PCB-Mixed Waste
Containers in Storage Exceeding One Year Disposal
Requirement during Third Quarter 2018**

The following radioactively contaminated polychlorinated biphenyl (PCB) waste items remained in storage past the one year regulatory time frame specified in 40 *CFR* § 761.65(a)(1).

Waste items 106744-01 and 107839-01 are faulted transformers that have removed from service dates of November 7, 2005, and June 27, 2004, respectively. Due to their size and the structural/equipment interferences in the process buildings, options for disposal of these items continue to be evaluated.

Backup documentation is kept on file in Technical Services Project Document Control Center.

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FOURTH QUARTER 2018

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**Written Record Demonstrating Compliance with
40 *CFR* § 761.65 (a)(1) Regarding PCB-Mixed Waste
Containers in Storage Exceeding One Year Disposal
Requirement during Fourth Quarter 2018**

The following radioactively contaminated polychlorinated biphenyl (PCB) waste items remained in storage past the one year regulatory time frame specified in 40 *CFR* § 761.65(a)(1).

Waste items 106744-01 and 107839-01 are faulted transformers that have removed from service dates of November 7, 2005, and June 27, 2004, respectively. Due to their size and the structural/equipment interferences in the process buildings, options for disposal of these items continue to be evaluated.

Backup documentation is kept on file in Technical Services Project Document Control Center.

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**WRITTEN RECORD REGARDING ACTIONS TAKEN FOR
NONCOMPLIANT PCB-MIXED WASTE CONTAINER DISCOVERED
DURING FIRST QUARTER 2019**

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Written Record Regarding Actions Taken for Noncompliant PCB-Mixed Waste Container Discovered during First Quarter 2019

The container discovered to be non-compliant during the first quarter time frame was part of characterization package PAD-WD-0834-V5. Waste item 121255-02 was a container of PCB Rinseate Oil from C-337 PCB Transformers. The container had a Date to Storage (DTS) of October 10, 2017.

- October 4, 2017—Container 121255-01 was filled.
- October 10, 2017—Container 121255-02 was initiated. Two gallons of material was added between October 10, 2017 and October 12, 2017.
- July 23, 2018—Another 4 gallons of material added to container.
- No more material added to the drum again until January 2019.
- January 3, 2019—Procedure CP3-OP-0313 was revised to allow the draining of the sight glasses of PCB transformers.
- January 2019—38.5 gallons of material drained from transformers to allow the closing of open PCB spill sites.
- January 29, 2019—The last waste material was added to the drum.
- January 29, 2019—Waste Operations placed the container into permanent storage.
- Container added to the Ztable tracking database.
- As part of the preparation for an upcoming shipment the DTS was discovered to be over 1 year.
- February 18, 2019—An inspection of the container and review of the paperwork to confirm the DTS was older than 1 year.
- February 20, 2019—Transportation Manager notified and a Waste Engineer was assigned and the characterization was completed.
- February 27, 2019—Drum shipped to DSSI in Oak Ridge, TN.

Backup documentation is kept on file in Technical Services Project Document Control Center.

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