



**Department of Energy**  
Portsmouth/Paducah Project Office  
1017 Majestic Drive, Suite 200  
Lexington, Kentucky 40513  
(859) 219-4000  
October 13, 2021

Ms. Jamie Nielsen, Supervisor  
Permit Administration Section  
Division of Waste Management, Solid Waste Branch  
Kentucky Department for Environmental Protection  
300 Sower Boulevard, 2nd Floor  
Frankfort, Kentucky 40601

PPPO-02-10017220-22B

Dear Ms. Nielsen:

**C-746-S&T AND C-746-U SOLID WASTE LANDFILLS THIRD QUARTER  
CALENDAR YEAR 2021 WASTE OPERATING REPORT, PADUCAH GASEOUS  
DIFFUSION PLANT, PADUCAH, KENTUCKY, FRNP-RPT-0183/V3, SOLID WASTE  
PERMIT NO. SW07300014, SW07300015, SW07300045, AGENCY INTEREST NO. 3059**

The U.S. Department of Energy has prepared the third quarter operating report for calendar year 2021 for the C-746-S&T Landfills and the C-746-U Landfill at the Paducah Gaseous Diffusion Plant. Kentucky Solid Waste Regulation 401 KAR 47:190 § 8(1) and Solid Waste Permit No. SW07300014, SW07300015, SW07300045, Permit Condition ACTV0006, Special Condition 10, require submittal of quarterly reports from operators of solid waste landfills.

The groundwater data, surface water data, and methane monitoring results are submitted as separate reports for the C-746-S&T Landfills and the C-746-U Landfill.

If you have any questions, please contact David Dollins at (270) 441-6819.

Sincerely,

**Jennifer R.  
Woodard**

Digitally signed by  
Jennifer R. Woodard  
Date: 2021.10.13  
14:41:33 -05'00'

Jennifer Woodard  
Paducah Site Lead  
Portsmouth/Paducah Project Office

Enclosures:

1. Certification Page
2. *C-746-S&T and C-746-U Solid Waste Landfills Third Quarter Calendar Year 2021 Waste Operating Report, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, FRNP-RPT-0183/V3*

cc w/enclosures:

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## CERTIFICATION

**Document Identification:** *C-746-S&T and C-746-U Solid Waste Landfills Third Quarter Calendar Year 2021 Waste Operating Report, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, FRNP-RPT-0183/V3, Solid Waste Permit SW07300014, SW07300015, SW07300045, Agency Interest No. 3059, October 2021*

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations.

Four Rivers Nuclear Partnership, LLC  
Permittee (Operator)

MYRNA REDFIELD (Affiliate) Digitally signed by MYRNA REDFIELD (Affiliate)  
Date: 2021.10.12 19:57:55 -05'00'

10/12/21

Myrna E. Redfield, Program Manager  
Four Rivers Nuclear Partnership, LLC

Date Signed

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations.

U.S. Department of Energy

Jennifer R. Woodard Digitally signed by Jennifer R. Woodard  
Date: 2021.10.13 14:29:21 -05'00'


Jennifer Woodard, Paducah Site Lead  
Portsmouth/Paducah Project Office  
U.S. Department of Energy

Date Signed

**C-746-S&T and C-746-U Solid Waste Landfills  
Third Quarter Calendar Year 2021  
Waste Operating Report  
Paducah Gaseous Diffusion Plant,  
Paducah, Kentucky**



This document is approved for public release per review by:

  
FRNP Classification Support

10-11-21  
Date



**C-746-S&T and C-746-U Solid Waste Landfills  
Third Quarter Calendar Year 2021  
Waste Operating Report  
Paducah Gaseous Diffusion Plant,  
Paducah, Kentucky**

Date Issued—October 2021

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 DE-EM0004895

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## REPORT SUMMARY

The information contained herein is submitted in accordance with the requirements of Solid Waste Permit Number SW07300014, SW07300015, SW07300045, and 401 *KAR* 47:190 § 8(1)(a) through (c) and (e), for the third quarter of calendar year 2021 for the Paducah Gaseous Diffusion Plant, McCracken County, Kentucky.

In the third quarter of calendar year 2021, a total of 1,685.98 tons of industrial waste was disposed of in the C-746-U Contained Landfill. There were 0.83 tons of asbestos-containing materials disposed of as part of the 1,685.98 total tons of waste dispositioned. No special waste or spill-residue-containing materials were disposed of in the landfill this quarter. As directed by the Cabinet, the Waste Quantity Report, DEP-7046-Q, is submitted as a separate report.

Analytical results for surface water monitoring, groundwater monitoring, and methane monitoring are submitted in separate quarterly Compliance Monitoring Reports for the C-746-U Landfill and C-746-S&T Landfills [401 *KAR* 47:190 § 8(1)(d)].

The C-746-S Residential Landfill has been inactive since July 1995, and the C-746-T Inert Landfill has been inactive since June 1992.

### Leachate Collection and Disposition

The leachate is primarily stored in five holding tanks (F-001, F-002, F-007, F-008, and F-009) with a total capacity of 104,200 gal. In the event that leachate cannot be managed solely with the primary tanks, 64,000 gal of additional storage capacity is available in reserve tanks F-010, F-011, F-012, and F-013. Tank F-004 is a 2,500-gal surge tank for the leachate treatment system. Storage tanks F-005 and F-006 were removed from service in 2014. The total leachate storage capacity is 170,700 gal.

The tank volume reported on the leachate log is the volume at the time of measurement. Calculation of the next day tank volume by subtraction of disposal volume may not reflect the measured tank volume because additional leachate had entered the system. A total of 129,000 gal of leachate from the C-746-U Landfill was treated at the C-746-U15 Leachate Treatment Facility this quarter. No leachate from the C-746-S Landfill was treated at the C-746-U15 Leachate Treatment Facility this quarter. There was no leachate transported to the other treatment facilities.

### Construction Activities and Cover Maintenance

There were no construction or cover maintenance activities associated with the C-746-S&T Landfills [401 *KAR* 47:190 § 8(1)(a)]. The C-746-S&T Landfills were inspected for subsidence in accordance with the cover requirements [401 *KAR* 48:080 § 9(6)(f)]. No repairs were necessary during the quarter.

During the third quarter of calendar year 2021, two significant construction activities were accomplished at the C-746-U Landfill.

An inflatable line-stop from the 10-inch high density polyethylene header pipe, which was used to isolate Phases 6 and 7 from the leachate collection system, was removed July 6–8, 2021. A permanent cap was installed on the 8-inch wye fitting that was used to temporarily reroute clean storm water to a nearby perimeter ditch and sedimentation basin. The line-stop avoided the collection of clean storm water until Phases 6 and 7 were available to accept waste. Documentation of engineering oversight of the electrofusion

capping activities by a Commonwealth of Kentucky-licensed Professional Engineer is included as an appendix to this report.

With the completion of this work and reconfiguration of the leachate collection system to its original permit-approved Phases 6 and 7 project construction, deviation 1.1.4 “Configuration of Leachate Collection Drainage System Connection” in the Kentucky Department of Waste Management (KDWM)-approved Construction Progress Report is no longer required.

A minor permit modification for leachate treatment facility piping and equipment was completed on August 12, 2021. The minor modification was approved by KDWM on May 21, 2021, with reference to Application I.D. No. APE20200002. Completion of the system modification increases the facilities capacity to treat leachate.

There were no cover maintenance activities at the C-746-U Landfill [401 *KAR* 47:190 § 8(1)(a)]. The landfill was inspected for subsidence in accordance with the cover requirements [401 *KAR* 48:080 § 9(6)(f)]. No repairs were necessary during the quarter.

## FACILITY INFORMATION SHEET

Sampling Date: N/A

County: McCracken Permit No.: SW07300014, SW07300015, SW07300045

Facility Name: U.S. Department of Energy—Paducah Gaseous Diffusion Plant  
(as officially shown on DWM permit face)

Site Address: 5501 Hobbs Road Kevil, Kentucky 42053  
Street City/State Zip

Phone No.: (270) 441-6800 Latitude: N 37° 07' 45" Longitude: W 88° 47' 55"

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### OWNER INFORMATION

Facility Owner: U.S. DOE, Joel Bradburne, Acting Manager Phone No.: (859) 219-4000

Contact Person: Gary Hines Phone No.: (270) 816-4164

Contact Person Title: Landfill Manager,  
Four Rivers Nuclear Partnership, LLC

Mailing Address: 5511 Hobbs Road Kevil, Kentucky 42053  
Street City/State Zip

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### SAMPLING PERSONNEL (if other than landfill or laboratory)

Company: GEO Consultants, LLC

Contact Person: Jason Boulton Phone No.: (270) 441-6756

Mailing Address: 325 Kentucky Avenue Kevil, Kentucky 42053  
Street City/State Zip

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### LABORATORY RECORD #1

Laboratory: GEL Laboratories, LLC Lab ID No.: KY90129

Contact Person: Valerie Davis Phone No.: (843) 769-7391

Mailing Address: P.O. Box 30712 Charleston, South Carolina 29417  
Street City/State Zip

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### LABORATORY RECORD #2

Laboratory: N/A Lab ID No.: N/A

Contact Person: N/A Phone No.: N/A

Mailing Address: N/A  
Street City/State Zip

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## **COVER LOG**

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# CP3-WM-0017-F02 - COVER LOG

DEPARTMENT OF ENERGY  
 COUNTY: McCracken

PERMIT NUMBER: 073-00045  
 Month & Year: July 2021

Day of Month	Daily Cell Location	Daily Cover Applied?	Interim Cover	Long Term Cover	Final Cap	Temporary Diversion Ditch Yes/No
1	<b>D-4 &amp; D-5</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20	<b>D-4 &amp; D-5</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
21	<b>D-5</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
22	<b>D-5</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
23						
24						
25						
26						
27						
28						
29						
30						
31						



## CP3-WM-0017-F02 - COVER LOG

DEPARTMENT OF ENERGY

PERMIT NUMBER: 073-00045

COUNTY: McCracken

Month & Year: August 2021

Day of Month	Daily Cell Location	Daily Cover Applied?	Interim Cover	Long Term Cover	Final Cap	Temporary Diversion Ditch Yes/No
1						
2						
3						
4	<b>D-3 &amp; D-4</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
5						
6						
7						
8						
9						
10						
11	<b>D-4</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
12						
13						
14						
15						
16	<b>D-4</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
17	<b>D-4</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
18	<b>D-4</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
19	<b>D-4</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
20						
21						
22						
23						
24	<b>D-4</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
25	<b>D-4</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
26	<b>D-4</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
27						
28						
29						
30	<b>D-4</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
31	<b>D-4</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>

## CP3-WM-0017-F02 - COVER LOG

DEPARTMENT OF ENERGY  
 COUNTY: McCracken

PERMIT NUMBER: 073-00045  
 Month & Year: September 2021

Day of Month	Daily Cell Location	Daily Cover Applied?	Interim Cover	Long Term Cover	Final Cap	Temporary Diversion Ditch Yes/No
1	<b>D-4</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
2						
3						
4						
5						
6						
7	<b>D-4&amp;D-5</b>	<b>YES</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
8						
9						
10						
11						
12						
13	<b>D-5</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
14	<b>D-5</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
15	<b>D-5</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
16						
17						
18						
19						
20						
21						
22						
23	<b>D-5</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
24						
25						
26						
27	<b>D-5</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
28	<b>C-5</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
29	<b>D-5</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
30						
31						

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## **LEACHATE LOG**

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**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month July Year 2021

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
7-01-21	1,2,3,4,5	F-001		9400		
7-01-21	1,2,3,4,5	F-002		4800		
7-01-21	1,2,3,4,5	F-007		1200		
7-01-21	1,2,3,4,5	F-008		1200		
7-01-21	1,2,3,4,5	F-009		700		
7-06-21	1,2,3,4,5	F-001		9400		
7-06-21	1,2,3,4,5	F-002		9700		
7-06-21	1,2,3,4,5	F-007		1200		
7-06-21	1,2,3,4,5	F-008		1200		
7-06-21	1,2,3,4,5	F-009		700		
7-07-21	1,2,3,4,5	F-001		9700		
7-07-21	1,2,3,4,5	F-002		11600		
7-07-21	1,2,3,4,5	F-007		1200		
7-07-21	1,2,3,4,5	F-008		1200		
7-07-21	1,2,3,4,5	F-009		700		
7-08-21	1,2,3,4,5	F-001		9700		
7-08-21	1,2,3,4,5	F-002		12800		
7-08-21	1,2,3,4,5	F-007		1200		
7-08-21	1,2,3,4,5	F-008		1200		
7-08-21	1,2,3,4,5	F-009		700		
7-12-21	1,2,3,4,5	F-001		9700		
7-12-21	1,2,3,4,5	F-002		27100	9200	L
7-12-21	1,2,3,4,5	F-007		1200		
7-12-21	1,2,3,4,5	F-008		1200		
7-12-21	1,2,3,4,5	F-009		700		
7-13-21	1,2,3,4,5	F-001		13000		
7-13-21	1,2,3,4,5	F-002		17900	9300	L

No measurements were taken on 7/05/21 due to company holiday

**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month July Year 2021

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
7-13-21	1,2,3,4,5	F-007		1200		
7-13-21	1,2,3,4,5	F-008		1200		
7-13-21	1,2,3,4,5	F-009		700		
7-14-21	1,2,3,4,5	F-001		15600		
7-14-21	1,2,3,4,5	F-002		8600	7200	L
7-14-21	1,2,3,4,5	F-007		1200		
7-14-21	1,2,3,4,5	F-008		1200		
7-14-21	1,2,3,4,5	F-009		700		
7-15-21	1,2,3,4,5	F-001		18200	10900	L
7-15-21	1,2,3,4,5	F-002		1400		
7-15-21	1,2,3,4,5	F-007		1200		
7-15-21	1,2,3,4,5	F-008		1200		
7-15-21	1,2,3,4,5	F-009		700		
7-19-21	1,2,3,4,5	F-001		7500		
7-19-21	1,2,3,4,5	F-002		12500	9300	L
7-19-21	1,2,3,4,5	F-007		1200		
7-19-21	1,2,3,4,5	F-008		1200		
7-19-21	1,2,3,4,5	F-009		700		
7-20-21	1,2,3,4,5	F-001		10000	8600	L
7-20-21	1,2,3,4,5	F-002		3500		
7-20-21	1,2,3,4,5	F-007		1200		
7-20-21	1,2,3,4,5	F-008		1200		
7-20-21	1,2,3,4,5	F-009		700		
7-21-21	1,2,3,4,5	F-001		1400		
7-21-21	1,2,3,4,5	F-002		5800	4400	L
7-21-21	1,2,3,4,5	F-007		1200		
7-21-21	1,2,3,4,5	F-008		1200		

**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month July Year 2021

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
7-21-21	1,2,3,4,5	F-009		700		
7-22-21	1,2,3,4,5	F-001		3000		
7-22-21	1,2,3,4,5	F-002		1400		
7-22-21	1,2,3,4,5	F-007		1200		
7-22-21	1,2,3,4,5	F-008		1200		
7-22-21	1,2,3,4,5	F-009		700		
7-26-21	1,2,3,4,5	F-001		9700	3400	L
7-26-21	1,2,3,4,5	F-002		1400		
7-26-21	1,2,3,4,5	F-007		1200		
7-26-21	1,2,3,4,5	F-008		1200		
7-26-21	1,2,3,4,5	F-009		700		
7-27-21	1,2,3,4,5	F-001		6300		
7-27-21	1,2,3,4,5	F-002		2600		
7-27-21	1,2,3,4,5	F-007		1200		
7-27-21	1,2,3,4,5	F-008		1200		
7-27-21	1,2,3,4,5	F-009		700		
7-28-21	1,2,3,4,5	F-001		6300		
7-28-21	1,2,3,4,5	F-002		4100		
7-28-21	1,2,3,4,5	F-007		1200		
7-28-21	1,2,3,4,5	F-008		1200		
7-28-21	1,2,3,4,5	F-009		700		
7-29-21	1,2,3,4,5	F-001		6300		
7-29-21	1,2,3,4,5	F-002		5000		
7-29-21	1,2,3,4,5	F-007		1200		
7-29-21	1,2,3,4,5	F-008		1200		
7-29-21	1,2,3,4,5	F-009		700		
		<i>Jammy Smith</i>		<i>7-29-21</i>		



**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month August Year 2021

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
8-02-21	1,2,3,4,5	F-001		6500		
8-02-21	1,2,3,4,5	F-002		10000		
8-02-21	1,2,3,4,5	F-007		1200		
8-02-21	1,2,3,4,5	F-008		1200		
8-02-21	1,2,3,4,5	F-009		700		
8-03-21	1,2,3,4,5	F-001		6500		
8-03-21	1,2,3,4,5	F-002		11600		
8-03-21	1,2,3,4,5	F-007		1200		
8-03-21	1,2,3,4,5	F-008		1200		
8-03-21	1,2,3,4,5	F-009		700		
8-04-21	1,2,3,4,5	F-001		6500		
8-04-21	1,2,3,4,5	F-002		12500	11100	L
8-04-21	1,2,3,4,5	F-007		1200		
8-04-21	1,2,3,4,5	F-008		1200		
8-04-21	1,2,3,4,5	F-009		700		
8-05-21	1,2,3,4,5	F-001		7300		
8-05-21	1,2,3,4,5	F-002		1400		
8-05-21	1,2,3,4,5	F-007		1200		
8-05-21	1,2,3,4,5	F-008		1200		
8-05-21	1,2,3,4,5	F-009		700		
8-09-21	1,2,3,4,5	F-001		12200		
8-09-21	1,2,3,4,5	F-002		1400		
8-09-21	1,2,3,4,5	F-007		1200		
8-09-21	1,2,3,4,5	F-008		1200		
8-09-21	1,2,3,4,5	F-009		700		
8-10-21	1,2,3,4,5	F-001		12200		
8-10-21	1,2,3,4,5	F-002		1400		

**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month August Year 2021

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
8-10-21	1,2,3,4,5	F-007		1200		
8-10-21	1,2,3,4,5	F-008		1200		
8-10-21	1,2,3,4,5	F-009		700		
8-11-21	1,2,3,4,5	F-001		12200		
8-11-21	1,2,3,4,5	F-002		1400		
8-11-21	1,2,3,4,5	F-007		1200		
8-11-21	1,2,3,4,5	F-008		1200		
8-11-21	1,2,3,4,5	F-009		700		
8-12-21	1,2,3,4,5	F-001		14800		
8-12-21	1,2,3,4,5	F-002		1400		
8-12-21	1,2,3,4,5	F-007		1200		
8-12-21	1,2,3,4,5	F-008		1200		
8-12-21	1,2,3,4,5	F-009		700		
8-16-21	1,2,3,4,5	F-001		14800		
8-16-21	1,2,3,4,5	F-002		6300		
8-16-21	1,2,3,4,5	F-007		1200		
8-16-21	1,2,3,4,5	F-008		1200		
8-16-21	1,2,3,4,5	F-009		700		
8-17-21	1,2,3,4,5	F-001		14800		
8-17-21	1,2,3,4,5	F-002		7000		
8-17-21	1,2,3,4,5	F-007		1200		
8-17-21	1,2,3,4,5	F-008		1200		
8-17-21	1,2,3,4,5	F-009		700		
8-18-21	1,2,3,4,5	F-001		14800		
8-18-21	1,2,3,4,5	F-002		7800		
8-18-21	1,2,3,4,5	F-007		1200		
8-18-21	1,2,3,4,5	F-008		1200		

**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month August Year 2021

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
8-18-21	1,2,3,4,5	F-009		700		
8-19-21	1,2,3,4,5	F-001		14800		
8-19-21	1,2,3,4,5	F-002		8900		
8-19-21	1,2,3,4,5	F-007		1200		
8-19-21	1,2,3,4,5	F-008		1200		
8-19-21	1,2,3,4,5	F-009		700		
8-23-21	1,2,3,4,5	F-001		14800	12000	L
8-23-21	1,2,3,4,5	F-002		18200		
8-23-21	1,2,3,4,5	F-007		1200		
8-23-21	1,2,3,4,5	F-008		1200		
8-23-21	1,2,3,4,5	F-009		700		
8-24-21	1,2,3,4,5	F-001		2800		
8-24-21	1,2,3,4,5	F-002		19900	12600	L
8-24-21	1,2,3,4,5	F-007		1200		
8-24-21	1,2,3,4,5	F-008		1200		
8-24-21	1,2,3,4,5	F-009		700		
8-25-21	1,2,3,4,5	F-001		4300		
8-25-21	1,2,3,4,5	F-002		7300		
8-25-21	1,2,3,4,5	F-007		1200		
8-25-21	1,2,3,4,5	F-008		1200		
8-25-21	1,2,3,4,5	F-009		700		
8-26-21	1,2,3,4,5	F-001		6000		
8-26-21	1,2,3,4,5	F-002		7300		
8-26-21	1,2,3,4,5	F-007		1200		
8-26-21	1,2,3,4,5	F-008		1200		
8-26-21	1,2,3,4,5	F-009		700		
8-30-21	1,2,3,4,5	F-001		10800		



**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month September Year 2021

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
9-01-21	1,2,3,4,5	F-001		13000		
9-01-21	1,2,3,4,5	F-002		7300		
9-01-21	1,2,3,4,5	F-007		1200		
9-01-21	1,2,3,4,5	F-008		1200		
9-01-21	1,2,3,4,5	F-009		700		
9-02-21	1,2,3,4,5	F-001		13900		
9-02-21	1,2,3,4,5	F-002		7300		
9-02-21	1,2,3,4,5	F-007		1200		
9-02-21	1,2,3,4,5	F-008		1200		
9-02-21	1,2,3,4,5	F-009		700		
9-07-21	1,2,3,4,5	F-001		19000	8200	L
9-07-21	1,2,3,4,5	F-002		7300		
9-07-21	1,2,3,4,5	F-007		1200		
9-07-21	1,2,3,4,5	F-008		1200		
9-07-21	1,2,3,4,5	F-009		700		
9-08-21	1,2,3,4,5	F-001		10800	9400	L
9-08-21	1,2,3,4,5	F-002		8100		
9-08-21	1,2,3,4,5	F-007		1200		
9-08-21	1,2,3,4,5	F-008		1200		
9-08-21	1,2,3,4,5	F-009		700		
9-09-21	1,2,3,4,5	F-001		1400		
9-09-21	1,2,3,4,5	F-002		8900		
9-09-21	1,2,3,4,5	F-007		1200		
9-09-21	1,2,3,4,5	F-008		1200		
9-09-21	1,2,3,4,5	F-009		700		
9-13-21	1,2,3,4,5	F-001		1400		
9-13-21	1,2,3,4,5	F-002		13000		

No measurements were take on 9/06/21 due to a company holiday

**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month September Year 2021

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
9-13-21	1,2,3,4,5	F-007		1200		
9-13-21	1,2,3,4,5	F-008		1200		
9-13-21	1,2,3,4,5	F-009		700		
9-14-21	1,2,3,4,5	F-001		1400		
9-14-21	1,2,3,4,5	F-002		13900		
9-14-21	1,2,3,4,5	F-007		1200		
9-14-21	1,2,3,4,5	F-008		1200		
9-14-21	1,2,3,4,5	F-009		700		
9-15-21	1,2,3,4,5	F-001		1400		
9-15-21	1,2,3,4,5	F-002		14800	1200	L
9-15-21	1,2,3,4,5	F-007		1200		
9-15-21	1,2,3,4,5	F-008		1200		
9-15-21	1,2,3,4,5	F-009		700		
9-16-21	1,2,3,4,5	F-001		2200		
9-16-21	1,2,3,4,5	F-002		13600		
9-16-21	1,2,3,4,5	F-007		1200		
9-16-21	1,2,3,4,5	F-008		1200		
9-16-21	1,2,3,4,5	F-009		700		
9-20-21	1,2,3,4,5	F-001		7300		
9-20-21	1,2,3,4,5	F-002		13600		
9-20-21	1,2,3,4,5	F-007		1200		
9-20-21	1,2,3,4,5	F-008		1200		
9-20-21	1,2,3,4,5	F-009		700		
9-21-21	1,2,3,4,5	F-001		8100		
9-21-21	1,2,3,4,5	F-002		13600	12200	L
9-21-21	1,2,3,4,5	F-007		1200		
9-21-21	1,2,3,4,5	F-008		1200		

**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month September Year 2021

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
9-21-21	1,2,3,4,5	F-009		700		
9-22-21	1,2,3,4,5	F-001		8900		
9-22-21	1,2,3,4,5	F-002		1400		
9-22-21	1,2,3,4,5	F-007		1200		
9-22-21	1,2,3,4,5	F-008		1200		
9-22-21	1,2,3,4,5	F-009		700		
9-23-21	1,2,3,4,5	F-001		10500		
9-23-21	1,2,3,4,5	F-002		1400		
9-23-21	1,2,3,4,5	F-007		1200		
9-23-21	1,2,3,4,5	F-008		1200		
9-23-21	1,2,3,4,5	F-009		700		
9-27-21	1,2,3,4,5	F-001		14800		
9-27-21	1,2,3,4,5	F-002		1400		
9-27-21	1,2,3,4,5	F-007		1200		
9-27-21	1,2,3,4,5	F-008		1200		
9-27-21	1,2,3,4,5	F-009		700		
9-28-21	1,2,3,4,5	F-001		15600		
9-28-21	1,2,3,4,5	F-002		1400		
9-28-21	1,2,3,4,5	F-007		1200		
9-28-21	1,2,3,4,5	F-008		1200		
9-28-21	1,2,3,4,5	F-009		700		
9-29-21	1,2,3,4,5	F-001		16500		
9-29-21	1,2,3,4,5	F-002		1400		
9-29-21	1,2,3,4,5	F-007		1200		
9-29-21	1,2,3,4,5	F-008		1200		
9-29-21	1,2,3,4,5	F-009		700		
9-30-21	1,2,3,4,5	F-001		17300		





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**APPENDIX**  
**CONSTRUCTION DOCUMENTATION**

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459 Soldier Creek Road, Kirksey Kentucky, 42054  
(270) 556-5501

September 27, 2021

Four Rivers Nuclear Partnership (FRNP)  
Gary Hines  
5511 Hobbs Roads  
Kevil, KY 42053

**Subject: Engineering Oversight of the Installation of a Cap on the HDPE Leachate Piping at the Phase 6 & 7 Connection to Header**

Dear Mr. Hines:

Soldier Creek Engineering & Technical Services (SCE) is pleased to submit this report of our observations during the installation of the cap on the HDPE Leachate Collection Piping.

As you know, during the construction of Phases 6 & 7, a Y-fitting which previously provided a cleanout location was re-purposed to provide an opening through which an inflatable line-stop could be installed. The line-stop would prevent any storm water from entering the leachate collection system during the period between construction of Phases 6 & 7 and the placement of the first waste in those Phases. Any stormwater intercepted by the line-stop was then re-routed to the perimeter ditch and on to the sedimentation basin.

FRNP has determined that the time for placement of waste in Phases 6 & 7 is approaching and in preparation for this activity the line-stop must be removed and the opening permanently capped. It is the installation of this cap that is the subject of this report.

This installation was self-performed by FRNP personnel on July 6 - 8, 2021. The basic sequence of activities was as follows:

1. Excavation of the Y-fitting and associated piping (See Photo 1)
2. Removal of the extraneous piping leaving a short stub. (See Photo 2)
3. Preparation of the pipe stub to receive the new electro-fusion cap (See Photo 3)
4. Installation and fusion of the cap (See Photos 4 & 5)
5. Placement of backfill (See Photo 6)
6. Final grading (See Photo 7)
7. Seeding and mulching (See Photo 8)

I have reviewed the submittals provided by FRNP on the cap/coupling and the fusion machine for compliance with the construction specifications and have witnessed their installation. It is my observation that both the materials and their installation were performed correctly and in accordance with the construction specifications.

If you have any questions or would like to discuss any portion of this report, please do not hesitate to contact me.

Regards,  
Soldier Creek Engineering & Technical Services, LLC



J. Keith Thorn, PE  
President



ATTACHMENTS:

Photos 1-8



**Photo 1, Excavation exposing the Y-fitting**



**Photo 2, HDPE Stub to be capped**



**Photo 3, HDPE Stub prepared to receive cap**



**Photo 4, HDPE Electrofusion Cap being installed**



**Photo 5, Electrofusion Unit indicating that the weld is completed and the leads can be disconnected**



**Photo 6, Backfilling the excavation**





**Photo 7, Final Grade restored**



**Photo 8, Application of seed and mulch**

Division of Waste Management  
Solid Waste Branch  
Quarterly Waste Quantity Report - DEP 7046-Q  
Electronic Submittal

\*\*This eForm is not applicable to Transfer stations or Convenience Centers. Those reports still need to be sent in the mail.

**Agency/Site Information:**

Agency Interest #(*) <input type="text" value="3059"/>	Facility Name <input type="text" value="Dept of Energy-Paducah Gaseous"/>	Report for the Months of(*) <input style="border: none; border-bottom: 1px solid black; text-align: center; font-size: small; color: gray; cursor: pointer; width: 100%;" type="text" value="Jul, Aug, Sep"/>	Year(*) <input style="border: none; border-bottom: 1px solid black; text-align: center; font-size: small; color: gray; cursor: pointer; width: 100%;" type="text" value="2021"/>
County where landfill is located: <input type="text" value="McCracken"/>		LandFill(*) <input style="border: none; border-bottom: 1px solid black; text-align: center; font-size: small; color: gray; cursor: pointer; width: 100%;" type="text" value="Contained Landfill(ACTV6)/07300045"/>	

**CONTAINED LANDFILL** [?](#)

**Editing the Grid: You may click in each cell to edit the value.  
You may navigate the grid items by using the tab and arrow keys or you may press the enter key to enable editing of a cell.**

	Waste Source	*Municipal Solid Waste	*Industrial Waste	*Special Waste	**Waste Used as Alternate Daily Cover As Approved	Delete
1		0	1685.98	0	0	Delete
+						

Total tonnage: 1685.98

<b>Total Fee :</b>	<input type="text" value="0"/>
--------------------	--------------------------------

\*Does not include waste used as Alternate Daily Cover.  
\*\*Indicate the amount of waste used as Alternate Daily Cover. Please note this requires prior approval by the Cabinet.

- For this calendar quarter, please check this box if no waste has been collected at the Solid Waste Disposal Facility.
- Check this box if you elect to submit a check or money order instead of paying this fee online, or payment is not required for this activity type. Payments shall be made payable to the Kentucky State Treasurer, and mailed to:

Division of Waste Management  
Solid Waste Branch  
300 Sower Blvd., Second Floor  
Frankfort, Kentucky 40601

**Certification:**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations.

Signature: (*)	Pin: (*)	Title: (*)
----------------	----------	------------

Signature		PIN	Title		
First Name:(*) Myrna		M.I.: E	Last Name:(*) Redfield		
eMail Address:(*) myrna.redfield@pad.pppo.gov		Business Phone:(*) 270-441-5113		Alternate Phone: Phone	Signature Date:(*) Date
<a href="#">Click to Save Values for Future Retrieval</a> <input type="button" value="Submit"/>					