



Steven L. Beshear  
Governor

Leonard K. Peters  
Secretary

## ENERGY AND ENVIRONMENT CABINET

Division of Waste Management  
200 Fair Oaks, 2<sup>nd</sup> Floor  
FRANKFORT, KY 40601  
TELEPHONE: 502-564-6716  
FACSIMILE: 502-564-3492  
waste.ky.gov

July 21, 2015

Mr. William E. Murphie, Manager  
United States Department of Energy  
5501 Hobbs Road  
Kevil, Kentucky 42053

**Certified Mail No. 7012 2920 0001 0743 2103**

Mr. Cornelius Murphy, Program Manager  
Fluor Federal Services, Inc.  
5511 Hobbs Road  
Kevil, Kentucky 42053

**Certified Mail No. 7012 2920 0001 0743 2110**

RE: Minor Modification and Construction Progress Report  
Paducah Gaseous Diffusion Plant  
Agency Interest No. 3059  
Application I.D. Nos. APE20150001 and APE20150004  
Solid Waste Permit No. 073-00014, 073-00015 and 073-00045  
McCracken County

Dear Mr. Murphie and Mr. Murphy:

The Kentucky Division of Waste Management (DWM), Solid Waste Branch received the Minor Modification referenced above (APE20150001) on May 28, 2015, proposing to revise the solid waste permittee operator to Fluor Federal Services. DWM hereby approves the application.

In addition, DWM has received the Construction Progress Report referenced above (APE20150004) documenting construction of the upgrades to the leachate storage and treatment system for the C-746-U Landfill. DWM hereby accepts the report.

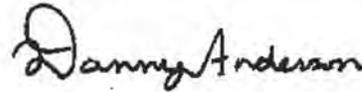
Please find enclosed a copy of the approved application and a copy of the accepted report along with a revised permit. Be advised that if you consider yourself aggrieved by the issuance of this permit, you have the right, pursuant to KRS 224.10-420(2) and 401 KAR 47:130 Section 2(3), to file a petition demanding a hearing with the Cabinet. This right shall be limited to a period of thirty (30) days from the receipt of this new permit.

Mr. Murphie,  
Mr. Murphy  
July 21, 2013  
Page 2 of 2

AI 3059  
Activity ID No. APE20130005

Should you have any questions regarding this matter, please contact Jamie Nielsen at (502) 564-6716 ext. 4773, or myself at ext. 4664.

Sincerely,



Danny Anderson, P.E.  
Manager, Solid Waste Branch

DJA/jnn

c: Ms. Myrna Redfield via email: [myrna.redfield@FFSPaducah.com](mailto:myrna.redfield@FFSPaducah.com)



**Kentucky Energy and Environment Cabinet  
Department for Environmental Protection  
Division of Waste Management**

**PERMIT**

**Facility:**           **U.S. Department of Energy - Paducah Gaseous Diffusion Plant**  
5501 Hobbs Rd  
Kevil, KY 42053

**Permittee (Owner):**                           **US Department of Energy**  
5501 Hobbs Rd  
Kevil, KY 42053

**Permittee (Operator):**                       **Fluor Federal Services, Inc.**  
5511 Hobbs Rd  
Kevil, KY 42053

**Agency Interest:**                       **Dept of Energy-Paducah Gaseous Diffusion Plant**  
5501 Hobbs Rd  
Kevil, KY 42053

The Division has issued the permit under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. This permitted activity or activities are subject to all conditions and operating limitations contained herein. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses or approvals required by this Division or other state and local agencies.

No deviation from the plans and specifications submitted with your application or any condition specified herein is allowed, unless authorized in writing from the Division. Violation of the terms and conditions specified herein may render this permit null and void. All rights of inspection by representatives of the Division are reserved. Conformance with all applicable Waste Management Regulations is the responsibility of the permittee.

**Agency Interest ID #:**                   **3059**

**Solid Waste Permit #:**                   **SW07300015, SW07300014, SW07300045**

**County:**                                   **McCracken**

**Permitted Activities:**

Subject Item	Activity	Type	Status
ACTV004	Residential Landfill/07300014	Closure Activities Only	Post-closure
ACTV005	Inert Landfill/07300015	Closure Activities Only	Post-closure
ACTV006	Contained Landfill/07300045	Construction/Operation	Active

PERMIT

**Acreage Summary:**

**Waste Disposal Area (in Acres):**

Activity	Disposal Area
Contained Landfill	22.10
Inert Landfill	10.50
Residential Landfill	3.90
<b>Total Disposal Area</b>	<b>36.50</b>
<b>Total Permitted Area</b>	<b>100.00</b>

**Cost Estimate Summary:**

Coverage Type	Cost Estimate	Effective	Comments
N/A			

**Financial Assurance Summary:**

The owner or operator shall maintain the following financial assurance approved by the Division in compliance with KRS Chapter 224.40-650, KRS Chapter 224.50-862, 401 KAR 45:080, and 401 KAR 48:310:

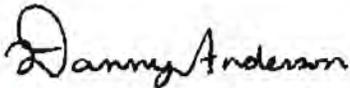
Instrument Type	Instrument Number	Amount	Date Received	Comments
N/A				

**First Operational Permit Effective Date: 11/04/1996 -- Contained Landfill**

**Permit Effective Date: 11/05/2006**

**Permit Expiration Date: 11/04/2016**

**Permit issued: 07/21/2015**



**Danny Anderson, P.E.  
Manager, Solid Waste Branch**

## PERMIT

**Permit Conditions:****Subject Items****ACTV0004 - Residential Landfill****Variations, Alternate Specifications and Special Conditions:**

1. C-746-S Landfill: This permit is for the post-closure care, groundwater monitoring, groundwater assessment, and- if necessary- groundwater corrective action of the C-746-S Residential Landfill. [401 KAR 47:120 Section 2, 401 KAR 48:300 Section 8]
2. C-746-S Landfill: The permittee shall complete closure and post-closure activities at this landfill in accordance with the approved plans and applications. The landfill cap and surface water control structures shall be maintained as necessary to: 1) maintain positive drainage; 2) prevent the growth of weeds, trees, and woody plants on the landfill cap; 3) protect the integrity of the low permeability layer; and 4) ensure compliance with the environmental performance standards of 401 KAR 47:030 and the requirements of KRS 224 and the administrative regulations issued pursuant thereto. [401 KAR 47:120 Section 2]
3. The permittee shall test the C-746-S Landfill leachate annually for the parameters listed in 401 KAR 48:300 Section 11(3), minus 2-Chlorovinyl Ethyl Ether, Dichlorodifluoromethane, Ethyl Alcohol, and Ethyl Methacrylate, plus the following: Aluminum, Boron, Bromide, Calcium, Cyanide, Eh, Fluoride, Gross Alpha, Gross Beta, Iodide, Magnesium, Manganese, Molybdenum, Dissolved Oxygen, PCBs, Potassium, Radium-226, Rhodium, Strontium-90, Sulfate, Tantalum, Technetium-99, Thorium-230, Tritium, and Uranium (total). Samples shall not be filtered. The leachate shall be thoroughly agitated in the tank(s) prior to sampling in order to ensure representative samples. [401 KAR 47:120 Section 2]

**Approved Applications - The owner or operator shall comply with applicable statutes and regulations and the following approved applications:**

1. 04/09/81 - Application
2. 07/03/89 - Application
3. 11/05/90 - Application
4. 04/12/93 - APE19930003 - Closure Plan
5. 02/21/95 - APE19900002 - Closure Plan
6. 08/09/95 - APE19890001 - Closure Plan
7. 03/04/96 - APE19990001 - Closure Plan
8. 03/04/96 - APE19930004 - Closure Plan
9. 03/04/96 - APE19910003 - LR1 PR1 - Permit Renewal
10. 03/04/96 - APE19910001 - Closure Plan
11. 03/06/96 - APE19900003 - Closure Plan
12. 04/25/01 - APE19980002 - LR1 PR2 - Permit Renewal
13. 02/01/01 - APE20000002 - Plan for Abandonment and Replacement of Monitoring Wells
14. 03/14/02 - APE20010002 - LI1MOGW1 - Groundwater Monitoring Plan
15. 02/16/06 - APE20030005 - Permit Renewal
16. 03/16/06 - APE20060003 - Minor Modification - TEMPO permit revision
17. 03/20/06 - APE20060003 - Minor Modification - Updated TEMPO permit revision
18. 04/24/06 - APE20060005 - Minor Modification - Add Paducah Remediation Services, LLC (operator)

## PERMIT

19. 05/24/07 - APE20060007 - Permit Renewal
20. 06/12/07 - APE20060007 - Revised Permit Issued to replace 5/24/07 permit issued
21. 07/11/07 - APE20060007 - Revised Permit Issued to replace 06/12/07 permit issued
22. 11/20/08 - APE20080002 - Groundwater and Surface Water Monitoring Plan Modification
23. 07/28/10 - APE20100005 - Permit Modification to Remove PRS from Permit and Add LATA to Permit
24. 08/02/10 - APE20100005 - Revised Permit Issued to replace 07/28/10 permit issued
25. 01/25/12 - APE20110004 - Groundwater Monitoring Modification - Remove Iodine-131 parameter
26. 09/05/14 - APE20130007 - Groundwater Monitoring Plan
27. 07/21/15 - APE20150001 - Permit Modification to Remove LATA from Permit and Add FSS to Permit (effective 7-26-15)

**ACTV0005 - Inert Landfill****Variances, Alternate Specifications and Special Conditions:**

1. C-746-T Landfill: This permit is for the post-closure care, groundwater monitoring, groundwater assessment, and- if necessary- groundwater corrective action of the C-746-T Inert Landfill. [401 KAR 47:120 Section 2, 401 KAR 48:300 Section 8]
2. C-746-T Landfill: The permittee shall complete closure and post-closure activities at this landfill in accordance with the approved plans and applications. The landfill cap and surface water control structures shall be maintained as necessary to: 1) maintain positive drainage; 2) prevent the growth of weeds, trees, and woody plants on the landfill cap; 3) protect the integrity of the low permeability layer; and 4) ensure compliance with the environmental performance standards of 401 KAR 47:030 and the requirements of KRS 224 and the administrative regulations issued pursuant thereto. [401 KAR 47:120 Section 2]

**Approved Applications - The owner or operator shall comply with applicable statutes and regulations and the following approved applications:**

1. 01/25/85 - Application
2. 02/05/85 - Application
3. 04/25/01 - APE19980001 - LI1PR2 - Permit Renewal
4. 02/01/01 - APE20000003 - Plan for Abandonment and Replacement of Monitoring Wells
5. 03/14/02 - APE20010003 - LI1MOGW1 - Groundwater Monitoring Plan
6. 02/16/06 - APE20020005 - Permit Renewal
7. 03/16/06 - APE20060003 - Minor Modification - TEMPO permit revision
8. 03/20/06 - APE20060003 - Minor Modification - Updated TEMPO permit revision
9. 04/24/06 - APE20060005 - Minor Modification - Add Paducah Remediation Services, LLC (operator)
10. 05/24/07 - APE20060007 - Permit Renewal
11. 06/12/07 - APE20060007 - Revised Permit Issued to replace 5/24/07 permit issued
12. 07/11/07 - APE20060007 - Revised Permit Issued to replace 06/12/07 permit issued
13. 11/20/08 - APE20080002 - Groundwater and Surface Water Monitoring Plan Modification
14. 07/28/10 - APE20100005 - Permit Modification to Remove PRS from Permit and Add LATA to Permit
15. 08/02/10 - APE20100005 - Revised Permit Issued to replace 07/28/10 permit issued
16. 01/25/12 - APE20110004 - Groundwater Monitoring Modification - Remove Iodine-131 parameter
17. 09/05/14 - APE20130007 - Groundwater Monitoring Plan
18. 07/21/15 - APE20150001 - Permit Modification to Remove LATA from Permit and Add FSS to Permit (effective 7-26-15)

## PERMIT

**ACTV0006 - Contained Landfill****Standard Requirements:**

1. General: The owner or operator of a solid waste site or facility shall comply with KRS Chapter 224 and 401 KAR Chapters 30, 40, 47 and 48 for the construction and operation of solid waste facilities. [KRS 224.40-305]
2. Permit Renewal: The owner or operator of a solid waste facility shall submit a permit application for renewal at least 180 days prior to permit expiration unless permission for a later date has been granted in writing by the cabinet. [401 KAR 47:160 Section 5(2)]
3. General: For construction and operation of the contained landfill, the owner or operator shall comply with KRS Chapter 224.40-310, 401 KAR 48:090, and the approved permit applications. [KRS 224.43-310]
4. Working Face: The owner or operator shall not place an initial lift containing any object that may damage the bottom liner. [401 KAR 48:090 Section 9(3)]
5. Record-keeping: The owner or operator shall submit a report quarterly, by the 15th of January, April, July, and October, containing the monthly volume of waste received from each source. [401 KAR 47:190 Section 8(1)(b)]
6. Record-keeping: The owner or operator shall submit a report quarterly, by the 15th of January, April, July, and October, containing the description of compliance with cover requirements. [401 KAR 47:190 Section 8(1)(c)]
7. Record-keeping: The owner or operator shall submit a report quarterly, by the 15th of January, April, July, and October, describing the quantity and concentration of leachate removed from the site, where disposed, and the method of disposal. The concentration shall be determined using appropriate parameters from Section 10(3) of 401 KAR 48:300 for contained landfills. [401 KAR 47:190 Section 8(1)(e)]
8. Record-keeping: The owner or operator shall conduct an annual survey to determine the remaining landfill volume which may be used for waste disposal. The quantity of waste disposed per day shall be determined by dividing the total waste received in one (1) year by 365 calendar days. This survey shall bear the seal and signature of the registered professional land surveyor or professional engineer who performed the survey. The owner or operator shall submit the annual survey to the cabinet by July 1 of each year. The annual survey shall contain the following information: Cross-sections on 100 foot intervals showing current waste placement and proposed final contours and remaining capacity in cubic yards. [401 KAR 47:190 Section 8(2)]

**Variances, Alternate Specifications and Special Conditions:**

1. Monitoring: The permittee shall test the C-746-U Landfill leachate annually for the parameters listed in 401 KAR 48:300 Section 11(3), minus 2-Chlorovinyl Ethyl Ether, Dichlorodifluoromethane, Ethyl Alcohol, and Ethyl Methacrylate, plus the following: Aluminum, Boron, Bromide, Calcium, Cyanide, Eh, Fluoride, Gross Alpha, Gross Beta, Iodide, Magnesium, Manganese, Molybdenum, Dissolved Oxygen, PCBs, Potassium, Radium-226, Rhodium, Strontium-90, Sulfate, Tantalum, Technetium-99, Thorium-230, Tritium, and Uranium (total). Samples shall not be filtered. The leachate shall be thoroughly agitated in the tank(s) prior to sampling in order to ensure representative samples. [401 KAR 47:120 Section 2]

## PERMIT

2. Operation: The leachate collection system shall include tanks capable of storing at least fifteen (15) days volume of leachate. A quarterly log of the volume, method, and place of disposal of the leachate shall be maintained, and shall be made available for review by Cabinet representatives upon request. [401 KAR 48:080 Section 6(4)(f)]

3. Record-keeping: Groundwater, surface water, and methane samples shall be taken quarterly and the results submitted to the Cabinet according to the following schedule:

First Quarter samples: Results due May 30

Second Quarter samples: Results due August 30

Third Quarter samples: Results due November 30

Fourth Quarter samples: Results due February 28. [401 KAR 48:300 Section 11(3)]

4. Monitoring: The permittee shall comply with all requirements of 401 KAR 48:300 and the Surface Water Monitoring Plan. Except as otherwise provided by statute, the requirements of 401 KAR 48:300 Section 8, Subsections 8, 9, 11, 12, 13, and 14 shall not apply to statistical exceedences of radionuclides, Uranium, and Technetium-99. However, in the event that a statistically significant increase of these contaminants occurs, the permittee shall perform a complete Groundwater Contamination Assessment as required by 401 KAR 48:300 Section 8. [401 KAR 48:300 Section 8, 401 KAR 47:120 Section 2]

5. Operation: The leachate recirculation shall occur only at the working face. A leachate transfer tank shall be used to discharge leachate into a hole excavated into the waste. No more than 1,600 gallons per day shall be recirculated. The discharge shall be restricted to sunny days. Recirculation shall not occur during periods of high winds, freezing temperatures, following rainfall events, or at night. No leachate shall be applied to waste that is less than ten (10) feet thick. Leachate recirculation shall be performed in accordance with the approved application, APE20110003. [401 KAR 47:120 Section 2]

6. Operation: In accordance with approved plan APE20040005, the landfill leachate treatment facility shall only accept leachate from the C-746-U and C-746-S landfills at the Paducah Gaseous Diffusion Plant. [401 KAR 47:120 Section 2]

7. Cover: The owner or operator may use Posi-Shell as alternate daily cover (ADC) in accordance with the APE20120004 approved permit application. The owner or operator shall use the ADC in accordance with the manufacturer's application guidance. In addition, the owner or operator shall use best management practices to prevent erosion of the material and shall control any runoff containing sediment from the ADC material. [401 KAR 48:090 Section 3(1)]

8. Cover: The owner or operator may use synthetic cover equivalent to Belton 113 as alternate daily cover (ADC). The fabric must be maintained in relatively untorn and good condition and the edges must be covered with dirt, sandbags or other suitable material (whole tires are not allowed) to hold down the fabric against the wind and to prevent vector attraction. The owner or operator must eliminate boards, pipes and similar tear hazards before covering the solid waste with the fabric and must use the ADC in accordance with the approved applications. [401 KAR 48:090 Section 3(1)]

9. Cover: The owner or operator may use soil for daily cover. Soil or any alternate cover must be applied in accordance with 401 KAR 48:090 Section 3 at the end of each operating day. [401 KAR 48:090 Section 3]

## PERMIT

10. Groundwater Assessment: The permittee shall submit a revised groundwater monitoring plan by December 1, 2013. The plan shall define procedures by which the landfill will be monitored for releases pursuant to 401 KAR 48:050 Section 6 and 401 KAR 48:300 Sections 4 and 5. The plan shall include methods by which groundwater contamination that is potentially due to landfill operations will be differentiated from contamination migrating from sources outside the landfill permit boundary. [401 KAR 48:300, 401 KAR 48:050]

11. Leachate from the C-746-U Contained Landfill may be treated in the C-746-U-15 onsite treatment facility or in the C-615, C-752-A, or C-753-A treatment facilities which are located outside the landfill permit boundary. The permittees shall provide the Division of Waste Management (Solid Waste Branch) at least two hours' advance notice prior to removing leachate from the C-746-U Landfill site for transport to the C-615, C-752-A, or C-753-A treatment facilities. Records showing the quantity and concentration of leachate removed from the U-Landfill site, where disposed, and the method of disposal shall be submitted in the quarterly operating report pursuant to 401 KAR 47:190 Section 8(1)(c). [401 KAR 47:120 Section 2]

12. General: The maximum extent of operation that may be open at any time during the active life of the landfill is 22.10 acres. [401 KAR 48:070 Section 15(2)(b)]

13. Wastestreams: The C-746-U Contained Landfill may accept for disposal only: 1) non-hazardous solid waste generated by, or on behalf of the United States Department of Energy (USDOE), on the USDOE-owned Paducah Gaseous Diffusion Plant (PGDP); 2) non-hazardous solid waste generated offsite from the DOE-owned PGDP as a result of environmental restoration/management activities (e.g., corrective action, removal action, remedial action, investigations, and/or monitoring) conducted by, or on behalf of, USDOE, associated with releases or potential releases from the PGDP; and 3) any non-hazardous residuals generated from the treatment or analysis of PGDP waste. The C-746-U Landfill may accept for disposal all non-hazardous solid waste including residential, commercial, institutional, industrial, and municipal waste, shredded tires, and non-hazardous spill cleanup residue. The technical requirements for contained landfills are found in 401 KAR 48:050 and 401 KAR 48:070 through 401 KAR 48:090. [401 KAR 47:080 Section 2(1), 401 KAR 47:120 Section 2]

14. Record-keeping: The owner or operator shall submit a report quarterly, by the 15th of January, April, July, and October, detailing the source, disposal location and quantity of any spill residues, and records as to the source and quantity of all other wastes disposed of at the contained landfill. [401 KAR 47:190 Section 8(5)]

**Approved Applications - The owner or operator shall comply with applicable statutes and regulations and the following approved applications:**

1. 02/28/95 - APE19930001 - LC1 NW 1 - Construction Permit
2. 01/19/96 - APE19950001 - LC1 MOMN1 - Minor Modification
3. 11/04/96 - APE19930001 - Construction/Operating Permit
4. 01/03/97 - Unnumbered Minor Modification
5. 02/01/01 - LC1 MOGW1 - APE20000002 - Well Corrosion Study Work Plan
6. 02/01/01 - LC1 MOGW2 - APE20000003 - Plan for Abandonment & Replacement of Monitoring Wells
7. 02/01/01 - LC1 MOMN2 - APE20000001 - Minor Modification
8. 01/04/02 - LC1 MOGW3 - Groundwater Monitoring Plan
9. 10/08/02 - Conditional Reopening of the Landfill
10. 10/03/03 - LC1 MOMN 3 and parts of LC1 MOMJ1 - Minor Modification and Part of Major Modification - Waste Acceptance Criteria

## PERMIT

11. 07/14/04 - APE20010001 - LC1MOMJ1 - Major Modification - Waste Acceptance Criteria
12. 02/16/06 - APE20040005 - Minor Modification - Leachate Treatment Facility
13. 03/13/06 - APE20060002 - Minor Modification - Waste Acceptance Criteria
14. 03/16/06 - APE20060003 - Minor Modification - TEMPO permit revision
15. 03/20/06 - APE20060003 - Minor Modification - Updated TEMPO permit revision
16. 04/24/06 - APE20060005 - Minor Modification - Add Paducah Remediation Services, LLC (operator)
17. 05/24/07 - APE20060007 - Permit Renewal
18. 06/12/07 - APE20060007 - Revised Permit Issued to replace 5/24/07 permit issued
19. 07/11/07 - APE20060007 - Revised Permit Issued to replace 06/12/07 permit issued
20. 02/12/08 - APE20060011 - Leachate Storage Capacity Minor Modification
21. 02/13/08 - AIN20070003 - Groundwater Contamination Assessment Plan
22. 11/20/08 - APE20080003 - Minor Modification - Revised HELP Model and Leachate Tank Design
23. 11/20/08 - APE20080002 - Groundwater and Surface Water Monitoring Plan Modification
24. 03/08/10 - APE20100001 - Construction Progress Report - Leachate Tank Installation - Approval pursuant to drawing numbers C7DC7460UA002 and S7DC7460UA001
25. 07/28/10 - APE20100005 - Permit Modification to Remove PRS from Permit and Add LATA to Permit
26. 08/02/10 - APE20100005 - Revised Permit Issued to replace 07/28/10 permit issued
27. 04/21/11 - APE20100003 - Minor Modification - Operational and Record-keeping Changes
28. 01/25/12 - APE20110001 - Minor Modification - Working Face Procedures
29. 01/25/12 - APE20110003 - Minor Modification - Leachate Recirculation
30. 01/25/12 - APE20110004 - Groundwater Monitoring Modification - Remove Iodine-131 parameter
31. 03/30/12 - APE20100007 - Minor Modification - Revised Technical Application, Attachments 1, 5, 16, 22, and 26
32. 07/20/12 - APE20120004 - Minor Modification - Posi-Shell Alternate Daily Cover
33. 09/11/13 - AIN20090008 - Groundwater Contamination Assessment Report
34. 01/07/14 - APE20130005 - Minor Modification - Leachate Collection System
35. 09/05/14 - APE20130007 - Groundwater Monitoring Plan
36. 09/05/14 - APE20140005 - Minor Modification - Leachate Collection and Treatment System
37. 07/21/15 - APE20150004 - Construction Progress Report - Leachate Collection and Treatment System
38. 07/21/15 - APE20150001 - Permit Modification to Remove LATA from Permit and Add FSS to Permit (effective 7-26-15)

**Financial Assurance****ACTV0002 - Financial Assurance**

The following is a history of the financial assurance for this facility:

Cost Estimates and Financial Assurance holdings are not applicable for this site.

**Monitoring Conditions****GSTR0001 - Groundwater Monitoring - SW: 073-00045 C-746-U LF Groundwater Monitoring Group**

**Group Members:** STRC0003 - Well MW-357; STRC0004 - Well MW-358; STRC0005 - Well MW-359; STRC0006 - Well MW-360; STRC0007 - Well MW-361; STRC0008 - Well MW-362; STRC0009 - Well

## PERMIT

MW-363; STRC0010 - Well MW-364; STRC0011 - Well MW-365; STRC0012 - Well MW-366; STRC0014 - Well MW-367; STRC0015 - Well MW-368; STRC0016 - Well MW-371; STRC0017 - Well MW-372; STRC0018 - Well MW-375; STRC0019 - Well MW-376; STRC0020 - Well MW-377; STRC0021 - Well MW-369; STRC0022 - Well MW-370; STRC0023 - Well MW-373; STRC0024 - Well MW-374

**Standard Requirements:**

1. The owner or operator shall satisfy the requirements of 401 KAR 48:300 for all wastes (or constituents thereof) contained in waste management units at the facility regardless of the time waste was placed in such unit. [401 KAR 48:300 Section 1]
2. The owner or operator shall monitor groundwater on the approved schedule at each approved groundwater monitoring location in accordance with 401 KAR 48:300, the permit, and the approved plans. A table summarizing the parameters to be monitored, their respective limits and monitoring frequency is included herein. [401 KAR 48:300, 401 KAR 47:120 Section 1]
3. The owner or operator shall conduct statistical analysis of the groundwater data in accordance with 401 KAR 48:300 Section 9 and the approved applications. The statistical test chosen shall be conducted separately for each parameter in each well for each monitoring event. The results shall be maintained as part of the facility record throughout the operating and post-closure life of the facility. [401 KAR 48:300 Section 9, 401 KAR 47:120 Section 1]
4. Metal criteria shall be total metals to be measured in an unfiltered sample. [401 KAR 47:030 Section 6(1)]
5. Groundwater monitoring wells shall be constructed and maintained in accordance with 401 KAR 48:300 Section 6, the permit, and the approved plans. [401 KAR 48:300 Section 6, 401 KAR 47:120 Section 1]
6. No monitoring well construction, maintenance, or abandonment may be conducted without prior approval by the Division of Waste Management. [401 KAR 47:120 Section 1, 401 KAR 47:120 Section 2]
7. Only a Kentucky Certified Monitoring Well Driller may construct or abandon monitoring wells. [401 KAR 6:320, 401 KAR 48:300 Section 7(3)]
8. If the analysis of groundwater sample results indicates contamination (i.e., a statistical or MCL exceedence) as specified in 401 KAR 48:300 Section 8(1), the owner or operator shall notify the cabinet within (forty-eight) 48 hours of receiving the results and shall arrange to split samples no later than ten (10) days from the receipt of the results. [401 KAR 48:300 Section 7]
9. The owner or operator shall be required to prepare and submit a groundwater contamination assessment plan if laboratory analyses of one (1) or more monitoring wells at the site shows the presence of one (1) or more parameters above the maximum contaminant level (MCL) as specified in 401 KAR 47:030 or a statistically significant increase over background levels for parameters that have no MCL. [401 KAR 48:300 Section 8, 401 KAR 47:120 Section 1]
10. The owner or operator shall provide alternate water supplies to all affected parties within twenty-four (24) hours of notification of the cabinet that sample results indicate contamination of a drinking water supply if it has been determined that the site or facility is the probable source of the contamination. [401 KAR 48:300

## PERMIT

## Section 8]

11. If required by the cabinet, groundwater contamination assessment and corrective action shall be performed in full compliance with all provisions of 401 KAR 48:300 Section 8. [401 KAR 48:300 Section 8]

12. The owner or operator shall provide the division a minimum of five (5) working days advance notice for all groundwater monitoring well construction and abandonment activities. [401 KAR 40:020 Section 2(4)]

**Variances, Alternate Specifications and Special Conditions:**

1. At each approved groundwater monitoring location, the permittee shall monitor quarterly for the parameters listed in 401 KAR 48:300 Section 11(3), minus 2-Chlorovinyl Ethyl Ether, Dichlorodifluoromethane, Ethyl Alcohol, and Ethyl Methacrylate, plus the following: Aluminum, Boron, Bromide, Calcium, Cyanide, Eh, Fluoride, Gross Alpha, Gross Beta, Iodide, Magnesium, Manganese, Molybdenum, Dissolved Oxygen, Potassium, Radium, Rhodium, Strontium-90, Sulfate, Tantalum, Technetium-99, Thorium-230, Tritium, Uranium (total) and Polychlorinated Biphenyls. Metals samples shall not be filtered. [401 KAR 47:120 Section 2, 401 KAR 48:300 Section 11(3)]

**GSTR0003 - Groundwater Monitoring - SW: 073-00014 and 073-00015 C-746-S and C-746-T Landfill Combined Groundwater Monitoring Group**

**Group Members:** STRC0017 - Well MW-372; STRC0021 - Well MW-369; STRC0022 - Well MW-370; STRC0023 - Well MW-373; STRC0060 - Well MW-220; STRC0061 - Well MW-221; STRC0062 - Well MW-222; STRC0063 - Well MW-223; STRC0064 - Well MW-224; STRC0073 - Well MW-384; STRC0074 - Well MW-385; STRC0075 - Well MW-386; STRC0076 - Well MW-387; STRC0077 - Well MW-388; STRC0078 - Well MW-389; STRC0079 - Well MW-390; STRC0080 - Well MW-391; STRC0081 - Well MW-392; STRC0082 - Well MW-393; STRC0083 - Well MW-394; STRC0084 - Well MW-395; STRC0085 - Well MW-396; STRC0086 - Well MW-397

**Standard Requirements:**

1. The owner or operator shall satisfy the requirements of 401 KAR 48:300 for all wastes (or constituents thereof) contained in waste management units at the facility regardless of the time waste was placed in such unit. [401 KAR 48:300 Section 1]

2. The owner or operator shall monitor groundwater on the approved schedule at each approved groundwater monitoring location in accordance with 401 KAR 48:300, the permit, and the approved plans. A table summarizing the parameters to be monitored, their respective limits and monitoring frequency is included herein. [401 KAR 48:300, 401 KAR 47:120 Section 1]

3. The owner or operator shall conduct statistical analysis of the groundwater data in accordance with 401 KAR 48:300 Section 9 and the approved applications. The statistical test chosen shall be conducted separately for each parameter in each well for each monitoring event. The results shall be maintained as part of the facility record throughout the operating and post-closure life of the facility. [401 KAR 48:300 Section 9, 401 KAR 47:120 Section 1]

4. Metal criteria shall be total metals to be measured in an unfiltered sample. [401 KAR 47:030 Section 6(1)]

## PERMIT

5. Groundwater monitoring wells shall be constructed and maintained in accordance with 401 KAR 48:300 Section 6, the permit, and the approved plans. [401 KAR 48:300 Section 6, 401 KAR 47:120 Section 1]
6. No monitoring well construction, maintenance, or abandonment may be conducted without prior approval by the Division of Waste Management. [401 KAR 47:120 Section 1, 401 KAR 47:120 Section 2]
7. Only a Kentucky Certified Monitoring Well Driller may construct or abandon monitoring wells. [401 KAR 6:320, 401 KAR 48:300 Section 7(3)]
8. If the analysis of groundwater sample results indicates contamination (i.e., a statistical or MCL exceedence) as specified in 401 KAR 48:300 Section 8(1), the owner or operator shall notify the cabinet within (forty-eight) 48 hours of receiving the results and shall arrange to split samples no later than ten (10) days from the receipt of the results. [401 KAR 48:300 Section 7]
9. The owner or operator shall be required to prepare and submit a groundwater contamination assessment plan if laboratory analyses of one (1) or more monitoring wells at the site shows the presence of one (1) or more parameters above the maximum contaminant level (MCL) as specified in 401 KAR 47:030 or a statistically significant increase over background levels for parameters that have no MCL. [401 KAR 48:300 Section 8, 401 KAR 47:120 Section 1]
10. The owner or operator shall provide alternate water supplies to all affected parties within twenty-four (24) hours of notification of the cabinet that sample results indicate contamination of a drinking water supply if it has been determined that the site or facility is the probable source of the contamination. [401 KAR 48:300 Section 8]
11. If required by the cabinet, groundwater contamination assessment and corrective action shall be performed in full compliance with all provisions of 401 KAR 48:300 Section 8. [401 KAR 48:300 Section 8]
12. The owner or operator shall provide the division a minimum of five (5) working days advance notice for all groundwater monitoring well construction and abandonment activities. [401 KAR 40:020 Section 2(4)]

**Variance, Alternate Specifications and Special Conditions:**

1. At each approved groundwater monitoring location, the permittee shall monitor annually for Polychlorinated biphenyls (PCBs). [401 KAR 48:300 Section 11(3)]
2. With respect to the C-746-S and C-746-T Landfills, the permittee shall comply with all of the requirements of 401 KAR 48:300 except 401 KAR 48:300 Section 8. The groundwater assessment and corrective action requirements of 401 KAR 48:300 Section 8 shall not apply to the C-746-S Residential Landfill and the C-746-T Inert Landfill. The permittee shall perform groundwater assessment and corrective action for these landfills in accordance with the provisions of 401 KAR 34:060, Section 12. [401 KAR 47:120 Section 2]
3. At each approved groundwater monitoring location, the permittee shall monitor quarterly for the parameters listed in 401 KAR 48:300 Section 11(3), minus 2-Chlorovinyl Ethyl Ether, Dichlorodifluoromethane, Ethyl Alcohol, and Ethyl Methacrylate, plus the following: Aluminum, Boron, Bromide, Calcium, Cyanide, Eh, Fluoride, Gross Alpha, Gross Beta, Iodide, Magnesium, Manganese, Molybdenum, Dissolved Oxygen, Potassium, Radium, Rhodium, Strontium-90, Sulfate, Tantalum, Technetium-99, Thorium-230, Tritium, and Uranium (total). Metals samples shall not be filtered. [401 KAR 47:120 Section 2, 401 KAR 48:300 Section

PERMIT

11(3)]

**GSTR0004 - Groundwater Monitoring - SW: 073-00014 and 073-00015 C-746-S and C-746-T Landfill Combined Groundwater Monitoring Group / Water Levels Only**

**Group Members:** STRC0065 - Well MW-225; STRC0071 - Well MW-353

**Variations, Alternate Specifications and Special Conditions:**

1. The permittee shall monitor these wells for static water levels only on a quarterly basis. [401 KAR 48:300 Section 11, 401 KAR 47:120 Section 2]

**GMNP0001 - Surface Water Monitoring - SW: 073-00045 C-746-U LF Surface Water Monitoring Group**

**Group Members:** MNPT0002 - Upstream Point L154; MNPT0003 - Instream Point L150; MNPT0012 - Downstream Point L351

**Standard Requirements:**

1. The owner or operator shall monitor surface water in accordance with 401 KAR 48:300 Section 2 and the approved surface water monitoring plan. A table summarizing the parameters to be monitored and the monitoring frequency is included herein. [401 KAR 48:300 Section 2]

**Variations, Alternate Specifications and Special Conditions:**

1. Subject to applicable law, surface water corrective action shall be completed by the owner or operator as necessary to comply with 401 KAR 47:030 Section 4. [401 KAR 47:030 Section 4]

**GMNP0003 - Surface Water Monitoring - SW: 073-00014 and 073-00015 C-746-S and C-746-T Combined Surface Water Monitoring Group**

**Group Members:** MNPT0002 - Upstream Point L154; MNPT0009 - Upstream Point L135; MNPT0010 - Instream Point L136

**Standard Requirements:**

1. The owner or operator shall monitor surface water in accordance with 401 KAR 48:300 Section 2 and the approved surface water monitoring plan. A table summarizing the parameters to be monitored and the monitoring frequency is included herein. [401 KAR 48:300 Section 2]

**Variations, Alternate Specifications and Special Conditions:**

1. Subject to applicable law, surface water corrective action shall be completed by the owner or operator as

## PERMIT

necessary to comply with 401 KAR 47:030 Section 4. [401 KAR 47:030 Section 4]

**GMNP0002 - Methane Monitoring - SW: Methane Monitoring Group**

**Group Members:** ACTV0004 - Residential Landfill; ACTV0006 - Contained Landfill

**Standard Requirements:**

1. **Property Line Explosive Gas Monitoring:** The owner or operator of a contained landfill shall quarterly monitor for explosive gas at locations along the facility property boundary as shown in the permit. [401 KAR 48:090 Section 4(2)(b)]
2. **Quarterly Facility Structure Explosive Gas Monitoring:** The owner or operator of a contained landfill shall monitor quarterly for explosive gas underneath or in the low area of each on-site building. [401 KAR 48:090 Section 4(2)(a)]
3. **Continuous Facility Structure Explosive Gas Monitoring:** The owner or operator shall install, operate, and maintain a gas detector with an alarm set at twenty-five (25) percent of the lower explosive limit in each on-site building. [401 KAR 48:090 Section 4(4)]
4. **Passive Gas Vent Explosive Gas Monitoring:** The owner or operator of a contained landfill shall quarterly monitor for explosive gas at each passive gas vent installed under the final closure cap. [401 KAR 48:090 Section 4(2)(c)]
5. **Problem Area Explosive Gas Monitoring:** The owner or operator of a contained landfill shall quarterly monitor for explosive gas at any potential gas problem areas, as revealed by dead vegetation or other indicators. [401 KAR 48:090 Section 4(2)(d)]
6. **Other Explosive Gas Monitoring:** The owner or operator of a contained landfill shall monitor quarterly for explosive gas at any other points required by the Cabinet in the permit. [401 KAR 48:090 Section 4(2)(e)]
7. **Exceedences:** If methane gas levels exceeding twenty-five (25) percent of the lower explosive limits (LEL) for methane in facility structures (excluding gas control or recovery system components) or the lower explosive limit for methane at the facility property boundary are detected, the owner or operator shall, within fourteen days, submit to the Cabinet for approval a remediation plan for the methane gas releases. The plan shall describe the extent of the problem and the proposed remedy. The plan shall be implemented upon approval by the Cabinet. [401 KAR 48:090 Section 4(5)(c)]
8. **Exceedences:** If methane gas levels exceeding twenty-five (25) percent of the lower explosive limits (LEL) for methane in facility structures (excluding gas control or recovery system components) or the lower explosive limit for methane at the facility property boundary are detected, the owner or operator shall immediately notify the Cabinet of the methane gas levels detected and the immediate steps taken to protect human health. [401 KAR 48:090 Section 4(5)(b)]
9. **Exceedences:** If methane gas levels exceeding twenty-five (25) percent of the lower explosive limits (LEL) for methane in facility structures (excluding gas control or recovery system components) or the lower explosive limit for methane at the facility property boundary are detected, the owner or operator shall take all necessary steps to ensure immediate protection of human health. [401 KAR 48:090 Section 4(5)(a)]

PERMIT

10. Record-keeping: The owner or operator shall record the date, time, location, percent lower explosive limit and other pertinent information regarding explosive gas monitoring on a record-keeping form approved by the cabinet. [401 KAR 48:090 Section 4(3)]

## PERMIT

## Groundwater Monitoring Limits:

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GSTR0001	00630-20-6	1,1,1,2-Tetrachloroethane	quarterly			mg/L	Yes	
GSTR0001	00071-55-6	1,1,1-Trichloroethane	quarterly		0.2	mg/L		
GSTR0001	00079-34-5	1,1,2,2-Tetrachloroethane	quarterly			mg/L	Yes	
GSTR0001	00079-00-5	1,1,2-Trichloroethane	quarterly			mg/L	Yes	
GSTR0001	00075-34-3	1,1-Dichloroethane	quarterly			mg/L	Yes	
GSTR0001	00075-35-4	1,1-Dichloroethylene	quarterly		0.007	mg/L		
GSTR0001	00096-18-4	1,2,3-Trichloropropane	quarterly			mg/L	Yes	
GSTR0001	00096-12-8	1,2-Dibromo-3-Chloropropane	quarterly			mg/L	Yes	
GSTR0001	00106-93-4	1,2-Dibromoethane	quarterly			mg/L	Yes	
GSTR0001	00095-50-1	1,2-Dichlorobenzene	quarterly			mg/L	Yes	
GSTR0001	00107-06-2	1,2-Dichloroethane	quarterly		0.005	mg/L		
GSTR0001	00078-87-5	1,2-Dichloropropane	quarterly			mg/L	Yes	
GSTR0001	00106-46-7	1,4-Dichlorobenzene	quarterly		0.075	mg/L		
GSTR0001	00591-78-6	2-Hexanone	quarterly			mg/L	Yes	
GSTR0001	00067-64-1	Acetone	quarterly			mg/L	Yes	
GSTR0001	00107-02-8	Acrolein	quarterly			mg/L	Yes	
GSTR0001	00107-13-1	Acrylonitrile	quarterly			mg/L	Yes	
GSTR0001	07429-90-5	Aluminum	quarterly			mg/L	Yes	
GSTR0001	07440-36-0	Antimony, Total (as Sb)	quarterly			mg/L	Yes	
GSTR0001	07440-38-2	Arsenic, Total (as As)	quarterly		0.05	mg/L		
GSTR0001	07440-39-3	Barium, Total (as Ba)	quarterly		2.0	mg/L		
GSTR0001	00071-43-2	Benzene	quarterly		0.005	mg/L		
GSTR0001	07440-41-7	Beryllium, Total	quarterly			mg/L	Yes	
GSTR0001	07440-42-8	Boron	quarterly			mg/L	Yes	
GSTR0001	24959-67-9	Bromide	quarterly			mg/L	Yes	
GSTR0001	00075-27-4	Bromodichloromethane	quarterly			mg/L	Yes	
GSTR0001	07440-43-9	Cadmium, Total (as Cd)	quarterly		0.005	mg/L		
GSTR0001	07440-70-2	Calcium	quarterly			mg/L	Yes	
GSTR0001	00075-15-0	Carbon Disulfide	quarterly			mg/L	Yes	
GSTR0001	00056-23-5	Carbon Tetrachloride	quarterly		0.005	mg/L		

## PERMIT

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GSTR0001		Carbon, Total Organic	quarterly			mg/L	Yes	
GSTR0001		Chemical Oxygen Demand (COD)	quarterly			mg/L	Yes	
GSTR0001	16887-00-6	Chloride	quarterly			mg/L	Yes	
GSTR0001	00108-90-7	Chlorobenzene	quarterly			mg/L	Yes	
GSTR0001	00074-97-5	Chlorobromomethane	quarterly			mg/L	Yes	
GSTR0001	00075-00-3	Chloroethane	quarterly			mg/L	Yes	
GSTR0001	00067-66-3	Chloroform	quarterly			mg/L	Yes	
GSTR0001	07440-47-3	Chromium, Total (as Cr)	quarterly		0.1	mg/L		
GSTR0001	10061-01-5	Cis 1,3-Dichloropropylene	quarterly			mg/L	Yes	
GSTR0001	00156-59-2	Cis-1,2-Dichloroethylene	quarterly			mg/L	Yes	
GSTR0001	07440-48-4	Cobalt, Total	quarterly			mg/L	Yes	
GSTR0001	07440-50-8	Copper, Total (as Cu)	quarterly			mg/L	Yes	
GSTR0001	00057-12-5	Cyanide, Total (as Cn)	quarterly			mg/L	Yes	
GSTR0001	00124-48-1	Dibromochloromethane	quarterly			mg/L	Yes	
GSTR0001	00075-09-2	Dichloromethane	quarterly			mg/L	Yes	
GSTR0001		Eh	quarterly			mV	Yes	
GSTR0001	00100-41-4	Ethyl Benzene	quarterly			mg/L	Yes	
GSTR0001	16984-48-8	Fluoride	quarterly		4.0	mg/L		
GSTR0001		Gross Alpha	quarterly		15	pCi/L		
GSTR0001		Gross Beta	quarterly		50	pCi/L		
GSTR0001		Halides, Total Organic	quarterly			mg/L	Yes	
GSTR0001		Iodide	quarterly			mg/L	Yes	
GSTR0001	00074-88-4	Iodomethane	quarterly			mg/L	Yes	
GSTR0001	07439-89-6	Iron, Total (as Fe)	quarterly			mg/L	Yes	
GSTR0001	07439-92-1	Lead, Total (as Pb)	quarterly		0.050	mg/L		
GSTR0001	07439-95-4	Magnesium, Total (as Mg)	quarterly			mg/L	Yes	
GSTR0001	07439-96-5	Manganese	quarterly			mg/L	Yes	
GSTR0001	07439-97-6	Mercury, Total (as Hg)	quarterly		0.002	mg/L		
GSTR0001	00074-83-9	Methyl Bromide	quarterly			mg/L	Yes	
GSTR0001	00074-87-3	Methyl Chloride	quarterly			mg/L	Yes	
GSTR0001	00078-93-3	Methyl Ethyl Ketone	quarterly			mg/L	Yes	

## PERMIT

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GSTR0001	00108-10-1	Methyl Isobutyl Ketone	quarterly			mg/L	Yes	
GSTR0001	00074-95-3	Methylene Bromide	quarterly			mg/L	Yes	
GSTR0001	07439-98-7	Molybdenum	quarterly			mg/L	Yes	
GSTR0001	07440-02-0	Nickel, Total (as Ni)	quarterly			mg/L	Yes	
GSTR0001		Nitrogen, Nitrate Total (as N)	quarterly		10	mg/L		
GSTR0001		Oxygen, Dissolved	quarterly			mg/L	Yes	
GSTR0001	01336-36-3	Polychlorinated Biphenyls (PCBs)	quarterly			mg/L	Yes	
GSTR0001	07440-09-7	Potassium	quarterly			mg/L	Yes	
GSTR0001	13982-63-3	Radium-226	quarterly			pCi/L	Yes	
GSTR0001	13982-63-3	Radium-226	quarterly			pCi/L	Yes	
GSTR0001	07440-16-6	Rhodium	quarterly			mg/L	Yes	
GSTR0001	07782-49-2	Selenium, Total (as Se)	quarterly		0.05	mg/L		
GSTR0001	07440-22-4	Silver, Total (as Ag)	quarterly		0.05	mg/L		
GSTR0001	07440-23-5	Sodium	quarterly			mg/L	Yes	
GSTR0001		Solids, Total Dissolved	quarterly			mg/L	Yes	
GSTR0001		Specific Conductance	quarterly			umho/cm	Yes	
GSTR0001		Strontium-90	quarterly		8	pCi/L		
GSTR0001	00100-42-5	Styrene	quarterly			mg/L	Yes	
GSTR0001	14808-79-8	Sulfate	quarterly			mg/L	Yes	
GSTR0001		Tantalum, Total	quarterly			mg/L	Yes	
GSTR0001	14133-76-7	Technetium 99, Total	quarterly			pCi/L	Yes	
GSTR0001	00127-18-4	Tetrachloroethylene (PCE)	quarterly			mg/L	Yes	
GSTR0001	07440-05-3	Thallium, Total	quarterly			mg/L	Yes	
GSTR0001		Thorium-230	quarterly			pCi/L	Yes	
GSTR0001	00108-88-3	Toluene	quarterly			mg/L	Yes	
GSTR0001	00156-60-5	Trans-1,2-Dichloroethylene	quarterly			mg/L	Yes	
GSTR0001	10061-02-6	Trans-1,3-Dichloropropene	quarterly			mg/L	Yes	
GSTR0001	00110-57-6	Trans-1,4-Dichloro-2-Butene	quarterly			mg/L	Yes	
GSTR0001	00075-25-2	Tribromomethane	quarterly			mg/L	Yes	
GSTR0001	00079-01-6	Trichloroethylene	quarterly		0.005	mg/L		
GSTR0001	00075-69-4	Trichlorofluoromethane	quarterly			mg/L	Yes	

## PERMIT

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GSTR0001	10028-17-8	Tritium; Tritium, Total	quarterly		20,000	pCi/L	Yes	
GSTR0001	07440-61-1	Uranium, Total	quarterly		30	ug/L		
GSTR0001	07440-62-2	Vanadium, Total	quarterly			mg/L	Yes	
GSTR0001	00108-05-4	Vinyl Acetate	quarterly			mg/L	Yes	
GSTR0001	00075-01-4	Vinyl Chloride	quarterly		0.002	mg/L		
GSTR0001	01330-20-7	Xylenes (Total)	quarterly			mg/L	Yes	
GSTR0001	07440-66-6	Zinc, Total (as Zn)	quarterly			mg/L	Yes	
GSTR0001		pH	quarterly			standard units	Yes	
GSTR0003	00630-20-6	1,1,1,2-Tetrachloroethane	quarterly			mg/L	Yes	
GSTR0003	00071-55-6	1,1,1-Trichloroethane	quarterly		0.2	mg/L		
GSTR0003	00079-34-5	1,1,2,2-Tetrachloroethane	quarterly			mg/L	Yes	
GSTR0003	00079-00-5	1,1,2-Trichloroethane	quarterly			mg/L	Yes	
GSTR0003	00075-34-3	1,1-Dichloroethane	quarterly			mg/L	Yes	
GSTR0003	00075-35-4	1,1-Dichloroethylene	quarterly		0.007	mg/L		
GSTR0003	00096-18-4	1,2,3-Trichloropropane	quarterly			mg/L	Yes	
GSTR0003	00096-12-8	1,2-Dibromo-3-Chloropropane	quarterly			mg/L	Yes	
GSTR0003	00106-93-4	1,2-Dibromoethane	quarterly			mg/L	Yes	
GSTR0003	00095-50-1	1,2-Dichlorobenzene	quarterly			mg/L	Yes	
GSTR0003	00107-06-2	1,2-Dichloroethane	quarterly		0.005	mg/L		
GSTR0003	00078-87-5	1,2-Dichloropropane	quarterly			mg/L	Yes	
GSTR0003	00106-46-7	1,4-Dichlorobenzene	quarterly		0.075	mg/L		
GSTR0003	00591-78-6	2-Hexanone	quarterly			mg/L	Yes	
GSTR0003	00067-64-1	Acetone	quarterly			mg/L	Yes	
GSTR0003	00107-02-8	Acrolein	quarterly			mg/L	Yes	
GSTR0003	00107-13-1	Acrylonitrile	quarterly			mg/L	Yes	
GSTR0003	07429-90-5	Aluminum	quarterly			mg/L	Yes	
GSTR0003	07440-36-0	Antimony, Total (as Sb)	quarterly			mg/L	Yes	
GSTR0003	07440-38-2	Arsenic, Total (as As)	quarterly		0.05	mg/L		
GSTR0003	07440-39-3	Barium, Total (as Ba)	quarterly		2.0	mg/L		
GSTR0003	00071-43-2	Benzene	quarterly		0.005	mg/L		

## PERMIT

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GSTR0003	07440-41-7	Beryllium, Total	quarterly			mg/L	Yes	
GSTR0003	07440-42-8	Boron	quarterly			mg/L	Yes	
GSTR0003	24959-67-9	Bromide	quarterly			mg/L	Yes	
GSTR0003	00075-27-4	Bromodichloromethane	quarterly			mg/L	Yes	
GSTR0003	07440-43-9	Cadmium, Total (as Cd)	quarterly		0.005	mg/L		
GSTR0003	07440-70-2	Calcium	quarterly			mg/L	Yes	
GSTR0003	00075-15-0	Carbon Disulfide	quarterly			mg/L	Yes	
GSTR0003	00056-23-5	Carbon Tetrachloride	quarterly		0.005	mg/L		
GSTR0003		Carbon, Total Organic	quarterly			mg/L	Yes	
GSTR0003		Chemical Oxygen Demand (COD)	quarterly			mg/L	Yes	
GSTR0003	16887-00-6	Chloride	quarterly			mg/L	Yes	
GSTR0003	00108-90-7	Chlorobenzene	quarterly			mg/L	Yes	
GSTR0003	00074-97-5	Chlorobromomethane	quarterly			mg/L	Yes	
GSTR0003	00075-00-3	Chloroethane	quarterly			mg/L	Yes	
GSTR0003	00067-66-3	Chloroform	quarterly			mg/L	Yes	
GSTR0003	07440-47-3	Chromium, Total (as Cr)	quarterly		0.1	mg/L		
GSTR0003	10061-01-5	Cis 1,3-Dichloropropylene	quarterly			mg/L	Yes	
GSTR0003	00156-59-2	Cis-1,2-Dichloroethylene	quarterly			mg/L	Yes	
GSTR0003	07440-48-4	Cobalt, Total	quarterly			mg/L	Yes	
GSTR0003	07440-50-8	Copper, Total (as Cu)	quarterly			mg/L	Yes	
GSTR0003	00057-12-5	Cyanide, Total (as Cn)	quarterly			mg/L	Yes	
GSTR0003	00124-48-1	Dibromochloromethane	quarterly			mg/L	Yes	
GSTR0003	00075-09-2	Dichloromethane	quarterly			mg/L	Yes	
GSTR0003		Eh	quarterly			mV	Yes	
GSTR0003	00100-41-4	Ethyl Benzene	quarterly			mg/L	Yes	
GSTR0003	16984-48-8	Fluoride	quarterly		4.0	mg/L		
GSTR0003		Gross Alpha	quarterly		15	pCi/L		
GSTR0003		Gross Beta	quarterly		50	pCi/L		
GSTR0003		Halides, Total Organic	quarterly			mg/L	Yes	
GSTR0003		Iodide	quarterly			mg/L	Yes	
GSTR0003	00074-88-4	Iodomethane	quarterly			mg/L	Yes	

Approved Applications:

APE20150001 &amp; APE20150004

Issuance Date: 07/21/2015

Page 19 of 23

## PERMIT

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GSTR0003	07439-89-6	Iron, Total (as Fe)	quarterly			mg/L	Yes	
GSTR0003	07439-92-1	Lead, Total (as Pb)	quarterly		0.050	mg/L		
GSTR0003	07439-95-4	Magnesium, Total (as Mg)	quarterly			mg/L	Yes	
GSTR0003	07439-96-5	Manganese	quarterly			mg/L	Yes	
GSTR0003	07439-97-6	Mercury, Total (as Hg)	quarterly		0.002	mg/L		
GSTR0003	00074-83-9	Methyl Bromide	quarterly			mg/L	Yes	
GSTR0003	00074-87-3	Methyl Chloride	quarterly			mg/L	Yes	
GSTR0003	00078-93-3	Methyl Ethyl Ketone	quarterly			mg/L	Yes	
GSTR0003	00108-10-1	Methyl Isobutyl Ketone	quarterly			mg/L	Yes	
GSTR0003	00074-95-3	Methylene Bromide	quarterly			mg/L	Yes	
GSTR0003	07439-98-7	Molybdenum	quarterly			mg/L	Yes	
GSTR0003	07440-02-0	Nickel, Total (as Ni)	quarterly			mg/L	Yes	
GSTR0003		Nitrogen, Nitrate Total (as N)	quarterly		10	mg/L		
GSTR0003		Oxygen, Dissolved	quarterly			mg/L	Yes	
GSTR0003	01336-36-3	Polychlorinated Biphenyls (PCBs)	annually			mg/L	Yes	
GSTR0003	07440-09-7	Potassium	quarterly			mg/L	Yes	
GSTR0003	13982-63-3	Radium-226	quarterly			pCi/L	Yes	
GSTR0003	07440-16-6	Rhodium	quarterly			mg/L	Yes	
GSTR0003	07782-49-2	Selenium, Total (as Se)	quarterly		0.05	mg/L		
GSTR0003	07440-22-4	Silver, Total (as Ag)	quarterly		0.05	mg/L		
GSTR0003	07440-23-5	Sodium	quarterly			mg/L	Yes	
GSTR0003		Solids, Total Dissolved	quarterly			mg/L	Yes	
GSTR0003		Specific Conductance	quarterly			umho/cm	Yes	
GSTR0003		Strontium-90	quarterly		8	pCi/L		
GSTR0003	00100-42-5	Styrene	quarterly			mg/L	Yes	
GSTR0003	14808-79-8	Sulfate	quarterly			mg/L	Yes	
GSTR0003		Tantalum, Total	quarterly			mg/L	Yes	
GSTR0003	14133-76-7	Technetium 99, Total	quarterly			pCi/L	Yes	
GSTR0003	00127-18-4	Tetrachloroethylene (PCE)	quarterly			mg/L	Yes	
GSTR0003	07440-05-3	Thallium, Total	quarterly			mg/L	Yes	
GSTR0003		Thorium-230	quarterly			pCi/L	Yes	

## PERMIT

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GSTR0003	00108-88-3	Toluene	quarterly			mg/L	Yes	
GSTR0003	00156-60-5	Trans-1,2-Dichloroethylene	quarterly			mg/L	Yes	
GSTR0003	10061-02-6	Trans-1,3-Dichloropropene	quarterly			mg/L	Yes	
GSTR0003	00110-57-6	Trans-1,4-Dichloro-2-Butene	quarterly			mg/L	Yes	
GSTR0003	00075-25-2	Tribromomethane	quarterly			mg/L	Yes	
GSTR0003	00079-01-6	Trichloroethylene	quarterly		0.005	mg/L		
GSTR0003	00075-69-4	Trichlorofluoromethane	quarterly			mg/L	Yes	
GSTR0003	10028-17-8	Tritium; Tritium, Total	quarterly		20,000	pCi/L	Yes	
GSTR0003	07440-61-1	Uranium, Total	quarterly		30	ug/L		
GSTR0003	07440-62-2	Vanadium, Total	quarterly			mg/L	Yes	
GSTR0003	00108-05-4	Vinyl Acetate	quarterly			mg/L	Yes	
GSTR0003	00075-01-4	Vinyl Chloride	quarterly		0.002	mg/L		
GSTR0003	01330-20-7	Xylenes (Total)	quarterly			mg/L	Yes	
GSTR0003	07440-66-6	Zinc, Total (as Zn)	quarterly			mg/L	Yes	
GSTR0003		pH	quarterly			standard units	Yes	

PERMIT

Surface Water Monitoring Limits:

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GMNP0001		Carbon, Total Organic	quarterly			mg/L		Yes
GMNP0001		Chemical Oxygen Demand (COD)	quarterly			mg/L		Yes
GMNP0001	16887-00-6	Chloride	quarterly			mg/L		Yes
GMNP0001		Gross Alpha	quarterly			pCi/L		Yes
GMNP0001		Gross Beta	quarterly			pCi/L		Yes
GMNP0001	07439-89-6	Iron, Total (as Fe)	quarterly			mg/L		Yes
GMNP0001	07440-23-5	Sodium	quarterly			mg/L		Yes
GMNP0001		Solids, Total Dissolved	quarterly			mg/L		Yes
GMNP0001		Solids, Total Suspended (TSS)	quarterly			mg/L		Yes
GMNP0001		Specific Conductance	quarterly			umho/cm		Yes
GMNP0001	14808-79-8	Sulfate	quarterly			mg/L		Yes
GMNP0001		Total Solids	quarterly			mg/L		Yes
GMNP0001	07440-61-1	Uranium, Total	quarterly			mg/L		Yes
GMNP0001		pH	quarterly			standard units		Yes
GMNP0003		Carbon, Total Organic	quarterly			mg/L		Yes
GMNP0003		Chemical Oxygen Demand (COD)	quarterly			mg/L		Yes
GMNP0003	16887-00-6	Chloride	quarterly			mg/L		Yes
GMNP0003		Gross Alpha	quarterly			pCi/L		Yes
GMNP0003		Gross Beta	quarterly			pCi/L		Yes
GMNP0003	07439-89-6	Iron, Total (as Fe)	quarterly			mg/L		Yes
GMNP0003	07440-23-5	Sodium	quarterly			mg/L		Yes
GMNP0003		Solids, Total Dissolved	quarterly			mg/L		Yes
GMNP0003		Solids, Total Suspended (TSS)	quarterly			mg/L		Yes
GMNP0003		Specific Conductance	quarterly			umho/cm		Yes
GMNP0003	14808-79-8	Sulfate	quarterly			mg/L		Yes

PERMIT

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GMNP0003		Total Solids	quarterly			mg/L		Yes
GMNP0003	07440-61-1	Uranium, Total	quarterly			mg/L		Yes
GMNP0003		pH	quarterly			standard units		Yes

Methane Monitoring Limits:

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GMNP0002		Continuous Facility Structure Explosive Gas Monitoring	continuously		25	% Lower Explosive Limit for Methane		
GMNP0002		Property Line Explosive Gas Monitoring	quarterly		100	% Lower Explosive Limit for Methane		
GMNP0002		Quarterly Facility Structure Explosive Gas Monitoring	quarterly		25	% Lower Explosive Limit for Methane		



**LATA Environmental Services  
of Kentucky, LLC**

3059  
APE 20150004

761 Veterans Avenue  
Kevil, KY 42053

June 12, 2015

PAD-REG-15-4804

Mr. Anthony R. Hatton, Director  
Division of Waste Management  
Kentucky Department for Environmental Protection  
200 Fair Oaks Lane, 2<sup>nd</sup> Floor  
Frankfort, Kentucky 40601

Mr. Todd Hendricks  
Division of Waste Management  
Kentucky Department for Environmental Protection  
200 Fair Oaks Lane, 2<sup>nd</sup> Floor  
Frankfort, Kentucky 40601



Dear Mr. Hatton and Mr. Hendricks:

**Construction Progress Report and Submittal of As-Built Drawings, C-746-U Landfill,  
Paducah Gaseous Diffusion Plant, Agency Interest No. 3059**

A permit modification request to upgrade the leachate storage and treatment system was submitted to the Kentucky Division of Waste Management (KDWM) on August 18, 2014, and approved by KDWM on September 5, 2014. This letter serves as a construction progress report, indicating that upgrades to the leachate storage and treatment system are complete. There were minor changes made to the original design during installation that are depicted in the enclosed as-built drawing (P7DC7460UA003 Rev. 3), as summarized below:

- Deleted the optional in-line resin trap because the option was not required;
- Added a bypass around filters F-7 and F-8 in the event apatite vessels 1 and 2 are not operating;
- Added resistance temperature detectors to the effluent storage tanks (F-010, F-011, F-012, F-013) and leachate storage tank (F-009);
- Reversed the order of the check valve and hand valve at the discharge of each pump;
- Changed valve positions on the drawing to allow apatite vessel 1 and ion exchange (IX) resin 1 to operate and apatite vessel 2 and IX resin 2 on standby;

**DIVISION OF WASTE MANAGEMENT  
SOLID WASTE BRANCH**

Reviewed on 7/16/15 Initials LTB  
As Accepted on 7/21/15 Initials PT

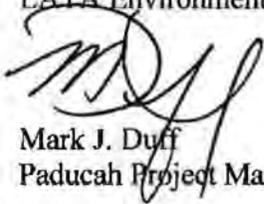
- Added valve numbers;
- Removed the pressure indicator on the discharge gravity feed because the line is at atmospheric pressure; and
- Added an effluent frac tank bypass valve to discharge to outfall 020 in lieu of sending effluent to the frac tanks.

A functional test of the upgraded leachate treatment system performed on May 28, 2015, using potable water, confirmed the system operated as designed. Four sets of as-built drawings, stamped by a licensed professional engineer, are enclosed showing the upgrades made to the leachate treatment system and the addition to leachate storage capacity were constructed in accordance with approved plans and specifications. Certification pages also are enclosed. Please contact Gary Hines at (270) 441-5143 to arrange the required inspection of the C-746-U Landfill by a Kentucky Department for Environmental Protection representative. After completing your review, please return three sets of stamped drawings to LATA Environmental Services of Kentucky, LLC.

If you have any questions, please contact Jennifer Johnson at (270) 441-5633.

Sincerely,

LATA Environmental Services of Kentucky, LLC



Mark J. Duff  
Paducah Project Manager

Enclosures:

1. As-Built Drawings
2. Certification Pages

cc:

DMC, Kevil

e-copy:

april.webb@ky.gov  
gary.hines@lataky.com  
jennifer.johnson@lataky.com  
jennifer.woodard@lex.doe.gov  
john.morgan@lataky.com  
kendall.holt@lataky.com

kim.knerr@lex.doe.gov  
myrna.redfield@lataky.com  
reinhard.knerr@lex.doe.gov  
stephen.casey@lex.doe.gov  
todd.hendricks@ky.gov  
tony.hatton@ky.gov

THIS DOCUMENT IS UNCLASSIFIED

DATE 03/01/2015 BY 60322

**CERTIFICATION**

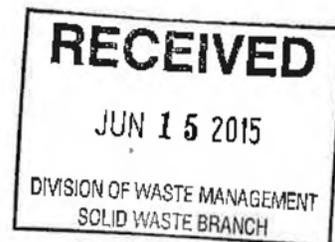
**Document Identification: Construction Progress Report and Submittal of As-Built Drawings, C-746-U Landfill, Paducah Gaseous Diffusion Plant, Agency Interest No. 3059**

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 ensure 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 knowing violations.

LATA Environmental Services of Kentucky, LLC

  
\_\_\_\_\_  
Gary Hines, Landfill Manager

6/05/15  
Date Signed

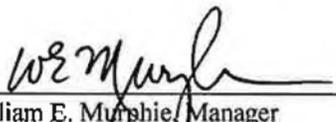


**CERTIFICATION**

**Document Identification: Construction Progress Report and Submittal of As-Built Drawings,  
C-746-U Landfill, Paducah Gaseous Diffusion Plant, Agency Interest  
No. 3059**

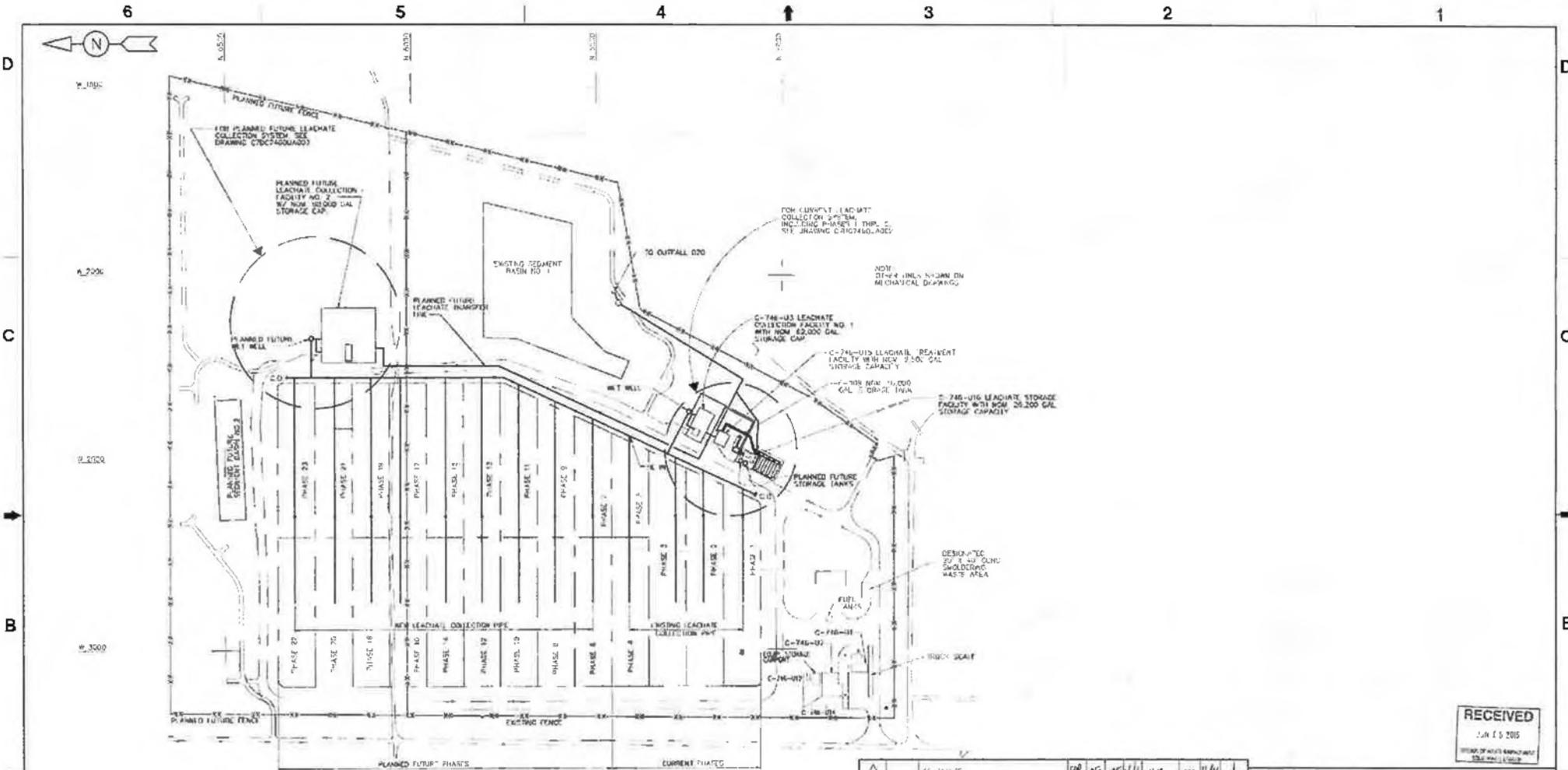
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible 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 knowing violations.

U.S. Department of Energy

  
\_\_\_\_\_  
William E. Murphy, Manager  
Portsmouth/Paducah Project Office  
U. S. Department of Energy

6/10/15  
Date Signed

**RECEIVED**  
JUN 15 2015  
DIVISION OF WASTE MANAGEMENT  
SOLID WASTE BRANCH



**SITE PLAN**

0 125 250 375

SCALE: 1"=125'

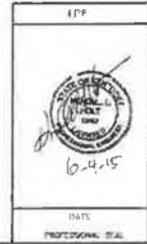
NO DIMENSION OR NUMBER, EXPRESSED OR IMPLIED, IS TO BE CONSIDERED AS A GUARANTEE OF THE ACCURACY OF THE INFORMATION CONTAINED HEREIN. THE USER SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF ANY INFORMATION APPEARING HEREIN, AND THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

**SECTION AND DETAIL KEY**

SECTION NUMBER OR DETAIL LETTER

DRAWING ON WHICH SECTION OR DETAIL IS TAKEN

DRAWING ON WHICH SECTION OR DETAIL IS SHOWN



NO.	DATE	DESCRIPTION	BY	CHECKED	DESIGNED	IN CHARGE	SCALE	DATE	REVISION
1	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	1
2	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	2
3	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	3
4	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	4
5	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	5
6	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	6
7	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	7
8	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	8
9	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	9
10	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	10
11	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	11
12	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	12
13	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	13
14	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	14
15	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	15
16	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	16
17	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	17
18	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	18
19	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	19
20	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	20
21	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	21
22	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	22
23	6/24/15	ISSUED FOR PERMITS	CTV	PAC	D.A.H.	J.H.	AS-BUILT	1"=125'	23

**U.S. DEPARTMENT OF ENERGY**  
PADUCAH, PORTSMOUTH PROJECT OPERATIONS,  
PADUCAH CASEOUS DIFFUSION PLANT

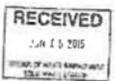
LATA Environmental Services  
of Kentucky, LLC

DOE CONTRACT NO. DE-AC30-10CC40020

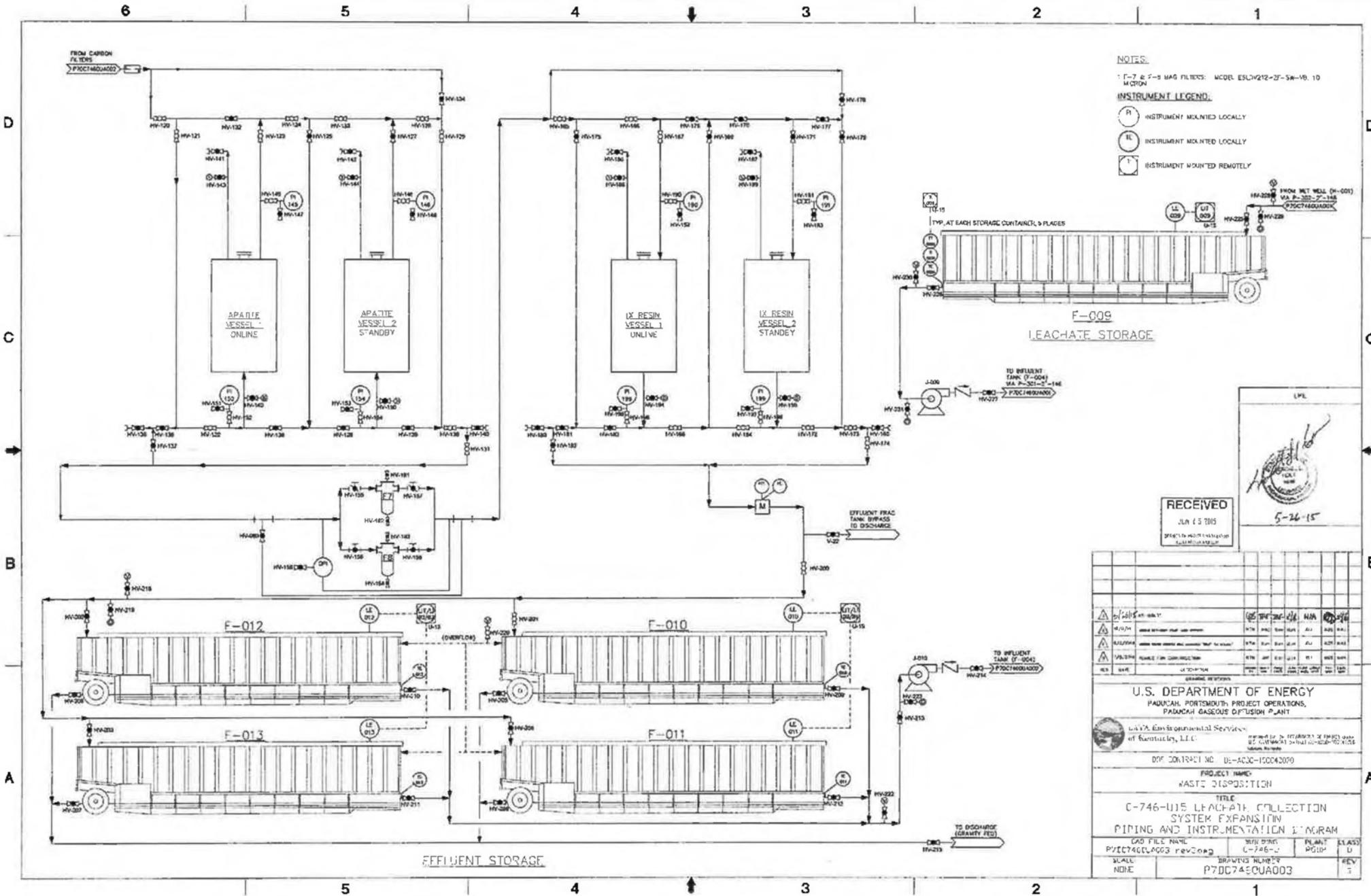
PROJECT NAME  
**WASTE DISPOSAL PROJECT**

C-746-U SOLID WASTE LANDFILL  
SITE LEACHATE COLLECTION SYSTEM  
PHASES 1 THRU 23 SITE PLAN

DATE: 6/24/15  
SCALE: NOTED  
DRAWING NUMBER: C746-U  
CLASS: U  
REV: 9







**NOTES:**

1. F-7 & F-8 HAZ FILTERS: MODEL E5CH212-2F-5M-VB, 10 M CTRON

**INSTRUMENT LEGEND:**

- INSTRUMENT MOUNTED LOCALLY
- INSTRUMENT MOUNTED LOCALLY
- INSTRUMENT MOUNTED REMOTELY

**RECEIVED**  
JUN 15 2015  
OFFICE OF HEALTH, SAFETY & ENVIRONMENT



APPROVALS		DATE		BY		REVISION	
APPROVED	DATE	APPROVED	DATE	APPROVED	DATE	APPROVED	DATE
<p align="center"><b>U.S. DEPARTMENT OF ENERGY</b>          PADUCAH, PORTSMOUTH, PROJECT OPERATIONS,          PADUCAH GASEOUS DIFFUSION PLANT</p> <p align="center">LVA Environmental Services          of Kentucky, LLC</p> <p align="center">DOE CONTRACT NO. DE-AC05-00OR21400</p> <p align="center">PROJECT NAME:          WASTE DISPOSITION</p> <p align="center">TITLE:          C-746-U15 LEACH-PIT COLLECTION          SYSTEM EXPANSION          PIPING AND INSTRUMENTATION PROGRAM</p> <p>         LVA FILE NAME: WASTE DISPOSITION C-746-U15          P/DC746U15 rev2003          SCALE: NONE          DRAWING NUMBER: P/DC746U15C0003          CLASS: U          REV: 3       </p>							



**Department of Energy**

Portsmouth/Paducah Project Office  
1017 Majestic Drive, Suite 200  
Lexington, Kentucky 40513  
(859) 219-4000

**MAY 27 2015**

3059  
APE 20150001

Mr. Danny Anderson  
PE, Manager Solid Waste Branch  
Kentucky Department for Environmental Protection  
Division of Waste Management  
200 Fair Oaks Lane, 2<sup>nd</sup> Floor  
Frankfort, Kentucky 40601

PPPO-02-2934609-15B

Dear Mr. Anderson:

**MINOR PERMIT MODIFICATION AND APPLICATION AND KEY PERSONNEL DISCLOSURE STATEMENTS FOR SOLID WASTE LANDFILL PERMIT NUMBER SW073-00014, SW073-00015, AND SW073-00045, PADUCAH GASEOUS DIFFUSION PLANT, AGENCY INTEREST NO. 3059**

The U.S. Department of Energy (DOE) Portsmouth/Paducah Project Office requests a minor modification of the referenced solid waste permits to add, as a permittee (operator), DOE's deactivation contractor for the Paducah Site, Fluor Federal Services, Inc. (FFS) and remove the incumbent remediation contractor, LATA Environmental Services of Kentucky, LLC (LATA Kentucky). DOE's status remains unchanged as Owner of the landfills. DOE requests that the permit modification be effective on July 26, 2015 (12:01 a.m.), which is the date that FFS will assume responsibility for contractor operations at the landfill. In support of this request and included in this application are the following:

1. FFS Corporate Applicant and Key Personnel Disclosure Statements (Form DEP 7087), and Attachments.
2. Application for minor modifications to a formal solid waste permit (Form DEP 7017) required by KRS 224.40-330 and Attachment 1 to Form DEP 7017.
3. Certification statements from DOE, FFS, and LATA Kentucky.

Gary Hines, a certified landfill manager, has accepted the position of landfill manager and operator and will assume the duties of landfill manager and operator on July 26, 2015, (12:01 a.m.). The key personnel disclosure statement for Gary Hines is also enclosed.

**APPROVED  
COMMONWEALTH OF KENTUCKY  
DEPARTMENT FOR  
ENVIRONMENTAL PROTECTION  
DIVISION OF WASTE MANAGEMENT**

**SIGNATURE  
BRANCH MANAGER**

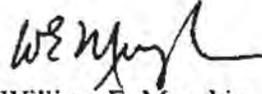
**SOLID WASTE BRANCH  
TITLE**

**JUL 21 2015  
DATE**

**RECEIVED**  
MAY 28 2015  
DIVISION OF WASTE MANAGEMENT  
SOLID WASTE BRANCH

If you have any questions or require additional information, please contact Cynthia Zvonar at (859) 219-4066.

Sincerely,



William E. Murphie  
Manager  
Portsmouth/Paducah Project Office

Enclosures:

- 1) FFS Corporate Applicant and Key Personnel Disclosure Statements (Form DEP 7087) and Attachments
- 2) Application for Minor Modifications to a Formal Solid Waste Permit (Form DEP 7017) required by KRS 224.40-330 and Attachment 1 to Form DEP 7017
- 3) Certification Statements from DOE, FFS and LATA Kentucky

e-copy w/enclosures:

april.webb@ky.gov, KDEP/Frankfort  
 brian.begley@ky.gov, KDEP/Frankfort  
 con.murphy@ffspaducah.com, FFS/Kevil  
 craig.jones@lataky.com, LATA/Kevil  
 cynthia.zvonar@lex.doe.gov, PPPO/LEX  
 danny.anderson@ky.gov, KDEP/Frankfort  
 david.senderling@lex.doe.gov, PPPO/LEX  
 elizabeth.keeling@ffspaducah.com, FFS/Kevil  
 gaye.brewer@ky.gov, KDEP/PAD  
 jennifer.woodard@lex.doe.gov, PPPO/PAD  
 joseph.poniatowski@ffspaducah.com, FFS/Kevil  
 karen.walker@lataky.com, LATA/Kevil  
 kelly.layfield@ffspaducah.com, FFS/Kevil  
 latacorrespondence@lataky.com, LATA/Kevil  
 leo.williamson@ky.gov, KDEP/Frankfort  
 mark.duff@lataky.com, LATA/Kevil  
 mike.guffey@ky.gov, KDEP/Frankfort  
 myna.redfield@lataky.com, LATA/Kevil  
 pad.dmc@swiftstaley.com, SSI/Kevil  
 reinhard.knerr@lex.doe.gov, PPPO/PAD  
 stephaniec.brock@ky.gov, RYRHB/Frankfort  
 teresa.overby@lataky.com, LATA/Kevil

DIVISION OF WASTE MANAGEMENT  
 ENVIRONMENTAL PROTECTION  
 DEPARTMENT FOR  
 COMMONWEALTH OF KENTUCKY

SIGNATURE

TITLE

**ENCLOSURE 1**

**DISCLOSURE STATEMENT FORM DEP 7087**



**ENERGY AND ENVIRONMENT CABINET  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION OF WASTE MANAGEMENT  
200 FAIR OAKS LANE, SECOND FLOOR  
FRANKFORT, KY 40601  
TELEPHONE NUMBER 502-564-6716**

**Disclosure Statement  
Form DEP 7087 (6/10)**

Statutes and regulations may be viewed online at the following website address: <http://www.lrc.ky.gov/search.htm>

Solid waste forms are available at the following website address: <http://www.waste.ky.gov>

**General Instructions**

1. **APPLICABILITY** – This form must be complete and submitted to the cabinet by persons requesting the issuance, renewal or transfer of a permit for a solid waste management facility pursuant to KRS 224.40-330.
2. **ASSISTANCE** – Questions regarding this form may be directed in writing to the Division of Waste Management (DWM), Solid Waste Branch at the address listed above or by calling (502) 564-6716.
3. **SUBMISSION** – Type or print legibly in permanent ink. Submit the original of the completed Disclosure Statement form to the DWM at the address listed above. If an item is not applicable, check the appropriate box or write “N/A” in the space provided.
4. **FILING FEES** – Fees are not applicable for disclosure.
5. **LAWS AND REGULATIONS** – Applicants are expected to understand and comply with all applicable laws and regulations.

To assist you in the submittal of a complete and accurate application, the DWM has identified the most common errors found during the review process. These errors are listed below for your convenience.

1. **Failure to complete the application. All attachments and supplemental data must be submitted with this application.**
2. **Failure to provide complete and accurate legal documentation of any criminal or judicial findings, which may result in significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations.**
3. **Failure to properly sign and notarize the application. An individual with signature authority for the applicant as defined by KRS 224.01- 010(44) and 401 KAR 47:160 must sign and notarize the appropriate signature sections of the application.**
4. **Failure to type or print your responses legibly in permanent ink.**
5. **Failure to properly identify the applicant. The applicant is the person, partnership, association, company, corporation, government agency, etc., which owns or operates the facility.**
6. **Failure to properly identify key personnel as defined by KRS 224.01-010(44) and submit the required key personnel disclosure statements signed by the key person.**

**Warning!** Due to the potential for identity theft, do not provide social security numbers to the DWM as part of this application. If this information is required during the normal course of review of the application, a cabinet representative will contact the appropriate individual to acquire this information in a secure format.





15. Provide, as **Attachment 2**, a description of the applicant's and the applicant's key personnel's experience in managing solid waste including any past or present permits or licenses held by the applicant or the applicant's key personnel within the previous five (5) years.

If not applicable, check here.

16. Provide, as **Attachment 3**, a description of the applicant's and the applicant's key personnel's experience in managing hazardous waste including any past or present permits or licenses held by the applicant within the previous five (5) years.

If not applicable, check here.

17. Provide, as **Attachment 4**, a description of all civil and administrative complaints against the applicant and its key personnel for the violation of any state or federal environmental protection law that have resulted in a fine or penalty of more than one thousand dollars (\$1,000) within five (5) years before the date of the submission of this application.

Each description shall include the following: the style of the complaint, the case, file, or other identifying number, the identity of all parties named in the complaint, the forum in which the complaint was filed, the identity of each state or federal agency involved with or named in the complaint, the amount of the fine or penalty, whether the fine or penalty has been paid, the identity and description of each law or regulation violated or alleged to have been violated and upon which the fine or penalty is based; and state whether the fine was the result of settlement or agreed order, an administrative order, or a court judgment. If litigation is ongoing, describe any orders or judgments entered and describe the current status of the litigation.

If not applicable, check here.

18. Provide, as **Attachment 5**, a description of all civil and administrative complaints against the applicant and its key personnel for the violation of any state or federal environmental protection law that allege an act or omission that constitutes a violation of a state or federal environmental protection law and that presented a substantial endangerment to the public health or the environment.

Each description shall include the following: the style of the complaint, the case, file, or other identifying number, the identities of each party to the complaint, the forum in which the complaint was brought, the identity of each state or federal agency involved with or named in the complaint, an explanation of the alleged act or omission, the identity and a description of the environmental protection law or regulation alleged to have been violated, an explanation of all corrective action measures performed to correct or mitigate the alleged violation, and a description of the alleged endangerment to public health or to the environment. State whether the issues raised in the complaint have been resolved and whether the resolution was the result of a settlement or agreement, an administrative order, or a court order of judgment. If litigation on the allegation is ongoing, describe any orders or judgments entered and describe the present status of the litigation.

If not applicable, check here.



19. Provide, as **Attachment 6**, a description of all pending criminal complaints alleging the violation of any state or federal environmental protection law that have been filed against the applicant and its key personnel within five (5) years before the date of submission of this application.

Each description shall include the following: the style of the case and the identifying case number, the date the complaint was filed, the forum in which the complaint is pending, the identity of the law or regulation allegedly violated and a narrative description of the law or regulation, whether the alleged violation is a misdemeanor or a felony, and all actions and pleadings which have occurred or have been filed in association with the complaint.

If not applicable, check here.

20. Provide, as **Attachment 7**, a description of all judgments of criminal conviction entered against the applicant and its key personnel within five (5) years before the date of submission of this application for the violation of any state or federal environmental protection law.

Each description shall include the following: style, case number, forum in which the complaint was entered, date of judgment, sentence imposed, the identity and a description of each law the applicant was convicted of violating, whether the conviction was the result of a plea agreement or a trial, and, if currently on appeal, the status of the appeal.

If not applicable, check here.

21. Provide, as **Attachment 8**, a description of all judgments of criminal conviction of a felony under the laws of any state or the United States that are entered against the applicant and its key personnel within five (5) years before the date of submission of this application.

Each description shall include the following: style, case number, forum in which the complaint was entered, date of judgment, sentence imposed, the identity and a description of each law the applicant was convicted of violating, whether the conviction was the result of a plea agreement or a trial, and, if currently on appeal, the status of the appeal.

If not applicable, check here.

22. Provide, as **Attachment 9**, a list of the names and addresses of all waste sites or facilities and solid waste management facilities in which the applicant or any of its key personnel has a financial or equitable interest, or is an officer, director, or manager.

If not applicable, check here.

23. Provide the names of all key personnel in the following table. Include their positions or titles. Provide this data as **Attachment 10** if additional pages are necessary.

A completed Key Personnel Disclosure Statement must be submitted for each individual listed as a Key Person. Sole proprietors and government agencies are not required to submit key personnel disclosure statements.

If not applicable, check here.





**Applicant Certification**

24. Pursuant to 401 KAR 47:160, Section 6, a person with signature authority such as a sole proprietor, owner, partner, corporate officer, plant manager, LLC member, mayor, county judge executive, or other authorized official shall sign this certification statement.

**NOTE: Consultants may not sign the following certification statement.**

**"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."**

Name of Person Signing (type or print): Cornelius Murphy

Title of Person Signing: Program Manager

Date: 5 - 26 - 2015

Signature per 401 KAR 47:160: Cornelius Murphy

Subscribed and sworn to before me this 26 day of May, Year 20 15

Notary Public Signature: Megan E. Muly

State of KY County of McCracken My commission expires: 3-25-17

**RECEIVED**  
MAY 28 2015  
DIVISION OF WASTE MANAGEMENT  
SOLID WASTE BRANCH





38. Provide, as **Attachment 14**, a description of all civil and administrative complaints against the key person for the violation of any state or federal environmental protection law that allege an act or omission that constitutes a violation of a state or federal environmental protection law and that presented a substantial endangerment to the public health or the environment.

Each description shall include the following: the style of the complaint, the case, file, or other identifying number, the identities of each party to the complaint, the forum in which the complaint was brought, the identity of each state or federal agency involved with or named in the complaint, an explanation of the alleged act or omission, the identity and a description of the environmental protection law or regulation alleged to have been violated, an explanation of all corrective action measures performed to correct or mitigate the alleged violation, and a description of the alleged endangerment to public health or to the environment. State whether the issues raised in the complaint have been resolved and whether the resolution was the result of a settlement or agreement, an administrative order, or a court order of judgment. If litigation on the allegation is ongoing, describe any orders or judgments entered and describe the present status of the litigation.

If not applicable, check here.

39. Provide, as **Attachment 15**, a description of all pending criminal complaints alleging the violation of any state or federal environmental protection law that have been filed against the key person within five (5) years before the date of submission of this application.

Each description shall include the following: the style of the case and the identifying case number, the date the complaint was filed, the forum in which the complaint is pending, the identity of the law or regulation allegedly violated and a narrative description of the law or regulation, whether the alleged violation is a misdemeanor or a felony, and all actions and pleadings which have occurred or have been filed in association with the complaint.

If not applicable, check here.

40. Provide, as **Attachment 16**, a description of all judgments of criminal conviction entered against the key person within five (5) years before the date of submission of this application for the violation of any state or federal environmental protection law.

Each description shall include the following: style, case number, forum in which the complaint was entered, date of judgment, sentence imposed, the identity and a description of each law the key person was convicted of violating, whether the conviction was the result of a plea agreement or a trial, and, if currently on appeal, the status of the appeal.

If not applicable, check here.



- 41. Provide, as **Attachment 17**, a description of all judgments of criminal conviction of a felony under the laws of any state or the United States that are entered against the key person within five (5) years before the date of submission of this application.

Each description shall include the following: style, case number, forum in which the complaint was entered, date of judgment, sentence imposed, the identity and a description of each law the key person was convicted of violating, whether the conviction was the result of a plea agreement or a trial, and, if currently on appeal, the status of the appeal.

If not applicable, check here.

- 42. Provide, as **Attachment 18**, a list of the names and addresses of all waste sites or facilities and solid waste management facilities in which the key person has a financial or equitable interest, or is an officer, director, or manager.

If not applicable, check here.



**Certification of Key Person**

- 43. Pursuant to 401 KAR 47:160, Section 6(4), the **Key Person** must sign this item.

**"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."**

Name of Key Person Signing (type or print): Cornelius Murphy

Title of Key Person Signing: Program Manager

Date: 5/26/2015

Signature per 401 KAR 47:160: *Cornelius Murphy*

Subscribed and sworn to before me this 26 day of May, Year 2015

Notary Public Signature: *Mega E. Huey*

State of Ky County of Martin My commission expires: 3-25-17





38. Provide, as **Attachment 14**, a description of all civil and administrative complaints against the key person for the violation of any state or federal environmental protection law that allege an act or omission that constitutes a violation of a state or federal environmental protection law and that presented a substantial endangerment to the public health or the environment.

Each description shall include the following: the style of the complaint, the case, file, or other identifying number, the identities of each party to the complaint, the forum in which the complaint was brought, the identity of each state or federal agency involved with or named in the complaint, an explanation of the alleged act or omission, the identity and a description of the environmental protection law or regulation alleged to have been violated, an explanation of all corrective action measures performed to correct or mitigate the alleged violation, and a description of the alleged endangerment to public health or to the environment. State whether the issues raised in the complaint have been resolved and whether the resolution was the result of a settlement or agreement, an administrative order, or a court order of judgment. If litigation on the allegation is ongoing, describe any orders or judgments entered and describe the present status of the litigation.

If not applicable, check here.

39. Provide, as **Attachment 15**, a description of all pending criminal complaints alleging the violation of any state or federal environmental protection law that have been filed against the key person within five (5) years before the date of submission of this application.

Each description shall include the following: the style of the case and the identifying case number, the date the complaint was filed, the forum in which the complaint is pending, the identity of the law or regulation allegedly violated and a narrative description of the law or regulation, whether the alleged violation is a misdemeanor or a felony, and all actions and pleadings which have occurred or have been filed in association with the complaint.

If not applicable, check here.

40. Provide, as **Attachment 16**, a description of all judgments of criminal conviction entered against the key person within five (5) years before the date of submission of this application for the violation of any state or federal environmental protection law.

Each description shall include the following: style, case number, forum in which the complaint was entered, date of judgment, sentence imposed, the identity and a description of each law the key person was convicted of violating, whether the conviction was the result of a plea agreement or a trial, and, if currently on appeal, the status of the appeal.

If not applicable, check here.



41. Provide, as **Attachment 17**, a description of all judgments of criminal conviction of a felony under the laws of any state or the United States that are entered against the key person within five (5) years before the date of submission of this application.

Each description shall include the following: style, case number, forum in which the complaint was entered, date of judgment, sentence imposed, the identity and a description of each law the key person was convicted of violating, whether the conviction was the result of a plea agreement or a trial, and, if currently on appeal, the status of the appeal.

If not applicable, check here.

42. Provide, as **Attachment 18**, a list of the names and addresses of all waste sites or facilities and solid waste management facilities in which the key person has a financial or equitable interest, or is an officer, director, or manager.

If not applicable, check here.



**Certification of Key Person**

43. Pursuant to 401 KAR 47:160, Section 6(4), the **Key Person** must sign this item.

"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."

Name of Key Person Signing (type or print): Robert Nichols

Title of Key Person Signing: Director, GDP Facilities, Operations & Infrastructure Date: 5-26-15

Signature per 401 KAR 47:160: Robert Nichols

Subscribed and sworn to before me this 26 day of May, Year 20 15

Notary Public Signature: Megan E. Muly

State of Ky County of McCracken My commission expires: 3-25-17





38. Provide, as **Attachment 14**, a description of all civil and administrative complaints against the key person for the violation of any state or federal environmental protection law that allege an act or omission that constitutes a violation of a state or federal environmental protection law and that presented a substantial endangerment to the public health or the environment.

Each description shall include the following: the style of the complaint, the case, file, or other identifying number, the identities of each party to the complaint, the forum in which the complaint was brought, the identity of each state or federal agency involved with or named in the complaint, an explanation of the alleged act or omission, the identity and a description of the environmental protection law or regulation alleged to have been violated, an explanation of all corrective action measures performed to correct or mitigate the alleged violation, and a description of the alleged endangerment to public health or to the environment. State whether the issues raised in the complaint have been resolved and whether the resolution was the result of a settlement or agreement, an administrative order, or a court order of judgment. If litigation on the allegation is ongoing, describe any orders or judgments entered and describe the present status of the litigation.

If not applicable, check here.

39. Provide, as **Attachment 15**, a description of all pending criminal complaints alleging the violation of any state or federal environmental protection law that have been filed against the key person within five (5) years before the date of submission of this application.

Each description shall include the following: the style of the case and the identifying case number, the date the complaint was filed, the forum in which the complaint is pending, the identity of the law or regulation allegedly violated and a narrative description of the law or regulation, whether the alleged violation is a misdemeanor or a felony, and all actions and pleadings which have occurred or have been filed in association with the complaint.

If not applicable, check here.

40. Provide, as **Attachment 16**, a description of all judgments of criminal conviction entered against the key person within five (5) years before the date of submission of this application for the violation of any state or federal environmental protection law.

Each description shall include the following: style, case number, forum in which the complaint was entered, date of judgment, sentence imposed, the identity and a description of each law the key person was convicted of violating, whether the conviction was the result of a plea agreement or a trial, and, if currently on appeal, the status of the appeal.

If not applicable, check here.



41. Provide, as **Attachment 17**, a description of all judgments of criminal conviction of a felony under the laws of any state or the United States that are entered against the key person within five (5) years before the date of submission of this application.

Each description shall include the following: style, case number, forum in which the complaint was entered, date of judgment, sentence imposed, the identity and a description of each law the key person was convicted of violating, whether the conviction was the result of a plea agreement or a trial, and, if currently on appeal, the status of the appeal.

If not applicable, check here.

42. Provide, as **Attachment 18**, a list of the names and addresses of all waste sites or facilities and solid waste management facilities in which the key person has a financial or equitable interest, or is an officer, director, or manager.

If not applicable, check here.



**Certification of Key Person**

43. Pursuant to 401 KAR 47:160, Section 6(4), the **Key Person** must sign this item.

**"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."**

Name of Key Person Signing (type or print): Mark Duff

Title of Key Person Signing: Director, Environmental Management Date: 5-26-15

Signature per 401 KAR 47:160: [Handwritten Signature]

Subscribed and sworn to before me this 26 day of May, Year 2015

Notary Public Signature: [Handwritten Signature]

State of Ky County of McCacken My commission expires: 3-25-17





38. Provide, as **Attachment 14**, a description of all civil and administrative complaints against the key person for the violation of any state or federal environmental protection law that allege an act or omission that constitutes a violation of a state or federal environmental protection law and that presented a substantial endangerment to the public health or the environment.

Each description shall include the following: the style of the complaint, the case, file, or other identifying number, the identities of each party to the complaint, the forum in which the complaint was brought, the identity of each state or federal agency involved with or named in the complaint, an explanation of the alleged act or omission, the identity and a description of the environmental protection law or regulation alleged to have been violated, an explanation of all corrective action measures performed to correct or mitigate the alleged violation, and a description of the alleged endangerment to public health or to the environment. State whether the issues raised in the complaint have been resolved and whether the resolution was the result of a settlement or agreement, an administrative order, or a court order of judgment. If litigation on the allegation is ongoing, describe any orders or judgments entered and describe the present status of the litigation.

If not applicable, check here.

39. Provide, as **Attachment 15**, a description of all pending criminal complaints alleging the violation of any state or federal environmental protection law that have been filed against the key person within five (5) years before the date of submission of this application.

Each description shall include the following: the style of the case and the identifying case number, the date the complaint was filed, the forum in which the complaint is pending, the identity of the law or regulation allegedly violated and a narrative description of the law or regulation, whether the alleged violation is a misdemeanor or a felony, and all actions and pleadings which have occurred or have been filed in association with the complaint.

If not applicable, check here.

40. Provide, as **Attachment 16**, a description of all judgments of criminal conviction entered against the key person within five (5) years before the date of submission of this application for the violation of any state or federal environmental protection law.

Each description shall include the following: style, case number, forum in which the complaint was entered, date of judgment, sentence imposed, the identity and a description of each law the key person was convicted of violating, whether the conviction was the result of a plea agreement or a trial, and, if currently on appeal, the status of the appeal.

If not applicable, check here.



41. Provide, as **Attachment 17**, a description of all judgments of criminal conviction of a felony under the laws of any state or the United States that are entered against the key person within five (5) years before the date of submission of this application.

Each description shall include the following: style, case number, forum in which the complaint was entered, date of judgment, sentence imposed, the identity and a description of each law the key person was convicted of violating, whether the conviction was the result of a plea agreement or a trial, and, if currently on appeal, the status of the appeal.

If not applicable, check here.

42. Provide, as **Attachment 18**, a list of the names and addresses of all waste sites or facilities and solid waste management facilities in which the key person has a financial or equitable interest, or is an officer, director, or manager.

If not applicable, check here.

**Certification of Key Person**



43. Pursuant to 401 KAR 47:160, Section 6(4), the **Key Person** must sign this item

"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."

Name of Key Person Signing (type or print): Gary Hines

Title of Key Person Signing: Landfill Manager

Date: 05-26-2015

Signature per 401 KAR 47:160: Gary Hines

Subscribed and sworn to before me this 26 day of May, Year 20 15

Notary Public Signature: Megan E. Muly

State of KY County of McCacken My commission expires: 3-25-17



**ATTACHMENTS - FORM 7087**

## **Attachment 2 (Applicant Disclosure Statement)**

Fluor Federal Services, Inc., including its parent company Fluor Inc., has extensive experience working on DOE remediation contracts addressing, among other tasks, the management of solid waste. From 1996 to 2008, Fluor was DOE's prime contractor (\$9.5 billion contract) for remediating a significant portion of Hanford. Fluor managed seven technical projects and maintained the site's infrastructure including telecommunications, water, sewer, power, and roads; emergency services (safeguards and security, fire protection); and a training facility. Additional responsibilities included project management, engineering, construction, operations, waste (including solid) management, safety, and regulatory compliance.

Through its experience in the Fluor-led partnership at the DOE Savannah River, Portsmouth, Strategy Petroleum Reserves and Paducah Sites, FFS has a proven history in dealing with nuclear waste management, storage and disposition.

At Portsmouth FFS manages the safe disposition of waste generated during the plant's uranium enrichment operations as well as building debris, contaminated soil, and other materials generated during the D&D and environmental cleanup of 415 facilities and structures at the Portsmouth plant. The plant's waste streams include solid and liquid radioactive materials; hazardous wastes such as toxic, corrosive, reactive or ignitable materials; mixed waste, which contains both hazardous and radioactive components; and sanitary waste.

At Savannah River, FFS has extensive experience in designing and operating high-level waste, low activity salt waste, and low-level waste treatment, storage, and disposal facilities (DWPF, Saltstone, shallow burial facilities).

Experience of the applicant's key personnel in managing solid waste is reflected in the Key Personnel Disclosure Statement.

## **Attachment 3 (Applicant Disclosure Statement)**

Fluor Federal Services, Inc., including its parent company Fluor Inc., has extensive experience working on DOE remediation contracts addressing, among other tasks, the management of hazardous waste.

At Hanford, Fluor was the DOE prime contractor responsible for addressing the legacy of waste that included 500 contaminated facilities, including 9 reactors and 5 processing canyons; 2,300 tons of used nuclear fuel languishing underwater in 2 basins; 20 tons of material laced with plutonium; 270 billion gallons of contaminated groundwater covering 100 square miles; and more than 70,000 drums of radioactive waste and 800 waste sites.

At Fernald, Fluor provided project management, engineering, procurement, and construction services to retrieve, package, and remove this over 250 radioactively contaminated structures residing on over 2.5 million cubic yards of heavily contaminated soil, with an excess of 1,500 tons of nuclear material held up in aging process lines and vessels. Fluor also decontaminated and demolished the buildings, constructing new facilities to process the waste. To meet the accelerated clean-up schedule at Fernald, Fluor constructed and operated a 75-acre onsite disposal facility (OSDF) to contain 2.9 million cubic yards of contaminated soil and debris. The Fernald OSDF was designed, constructed, operated and closed under the CERCLA Operable Unit Record of Decision. While not a permit or license, the Fernald OSDF was subject to both USEPA and Ohio EPA approval/concurrence and was accepted by Fernald citizen groups acknowledging its protectiveness. The operation of the Fernald OSDF was conducted under a robust waste acceptance criteria including both physical and chemical WAC. This WAC was developed in consultation with USEPA and Ohio EPA and ultimately approved by both regulatory agencies. FFS

established an effective Waste Acceptance Organization that evaluated the disposal of waste both as it was generated as well as at the disposal location.

At Portsmouth FFS manages the safe disposition of waste generated during the plant's uranium enrichment operations as well as building debris, contaminated soil, and other materials generated during the D&D and environmental cleanup of 415 facilities and structures at the Portsmouth plant. The plant's waste streams include solid and liquid radioactive materials; hazardous wastes such as toxic, corrosive, reactive or ignitable materials; mixed waste, which contains both hazardous and radioactive components; and sanitary waste.

At Savannah River, FFS has extensive experience in designing and operating high-level waste, low activity salt waste, and low-level waste treatment, storage, and disposal facilities (DWPF, Saltstone, shallow burial facilities).

FFS currently holds the following permits:

- Permit to Withdraw Public Water - Kentucky -900)
- Title V Permit (Kentucky -V-07-031)
- Kentucky Pollutant Discharge Elimination System (Kentucky - KY0102083)
- Hazardous Waste Facility Installation and Operations Permit for Storage and Corrective Action (Ohio)

Experience of the applicant's key personnel in managing hazardous waste is reflected in the Key Personnel Disclosure Statement.

## **Attachment 11 (Key Personnel Disclosure Statement)**

### **Cornelius Murphy – Fluor Federal Services, Inc., Program Manager**

#### **CBI Federal Services LLC, 2009-2014**

##### **COO/Senior Vice President**

Accountable for the technical, quality, safety, and cost and schedule performance of all federal services projects worldwide. Provided direction and oversight to project teams performing facility O&M, infrastructure, and utility optimization projects, including waste management services (solid waste).

#### **Fluor, 2007-2008**

##### **Program Manager, Hanford Management Contract**

Directed Fluor's \$900M/year environmental management contract. Work scope included characterization, stabilization, and D&D of facilities; utility and infrastructure optimization; soil and groundwater remediation; waste management (including solid waste); engineering; project planning and integration; and regulatory compliance, among other areas.

### **Robert Nichols – Fluor Federal Services, Inc., Director, GDP Facilities, Operations and Infrastructure**

#### **Fluor, 2012-2014**

##### **Deputy Site Project Director, PORTS D&D Project**

Directed the planning and execution of the PORTS D&D Project. Oversaw all aspects of the work, including facility characterization, modification, surveillance and maintenance and waste management (including solid waste). Directed and oversaw a 24/7 "cut and cap" operation that involved deactivating process gas equipment, piping and more than 7,000 components.

#### **Fluor, 2008-2009**

##### **Vice President of Closure Services and Infrastructure, Hanford**

Directed 750-person S&M, infrastructure, and service organization for DOE field offices and eight contractor organization. Oversaw water, sewer, and electrical utility operations and S&M in 365 facilities. Coordinated disposition of solid waste generated by these operations.

### **Mark Duff, Fluor Federal Services, Inc., Director, Environmental Management**

#### **LATA Environmental Services of Kentucky, 2011 – present**

##### **Project Manager**

Manages the safe and compliant operations for DOE, along with the remediation of various contamination areas. Includes management of scope associated with the operations of the solid waste landfills.

#### **Babcock and Wilcox, 2010 – 2011**

##### **Director for Management Operations, NNSA Y-12 Oak Ridge, TN**

Projects included large volumes of legacy material removal, old scrap yard characterization and remediation, and D&D of facilities. Responsible of the disposal of over 750,000 cubic feet of debris in the DOE Oak Ridge CERCLA cell.

**Gary Hines, Landfill Manager**

**LATA Environmental Services of Kentucky, LLC, June 2013 – present  
Landfill Manager**

Responsible for the day to day compliant operations of the C-746U Solid Waste Landfill.

**LATA Environmental Services of Kentucky, LLC, 2010–2013  
Waste Dispositions Supervisor, Paducah**

Managed RCRA, TSCA and LLW storage facilities under the Hazardous Waste Facility Permit KY8-890-008-982 and has actively backed up the landfill manager at the C-764-U Landfill since April 2012.

**Paducah Remediation Services, LLC, 2006 – 2010**

**Waste Disposition**

Managed RCRA, TSCA and LLW storage facilities under the Hazardous Waste Facility Permit KY8-890-008-982. Supported cleanup of numerous environmental cleanup projects. Supervised the cleanup of the DOE Material Storage Areas, which included characterizing, packaging, and shipping RCRA, TSCA, fissile and LLW to multiple treatment storage and disposal facilities.

## **Attachment 12 (Key Personnel Disclosure Statement)**

### **Cornelius Murphy – Fluor Federal Services, Inc., Program Manager**

**CBI Federal Services LLC, 2009-2014**

**COO/Senior Vice President**

Accountable for the technical, quality, safety, and cost and schedule performance of all federal services projects worldwide. Provided direction and oversight to project teams performing facility O&M, infrastructure, and utility optimization projects, including waste management services (hazardous waste).

**Fluor, 2007-2008**

**Program Manager**

Directed Fluor's \$900M/year Hanford environmental management contract, with nearly 4,000 employees and 60 subcontractors. Work scope included characterization, stabilization, and D&D of HazCat 2 facilities; utility and infrastructure optimization; soil and groundwater remediation; waste management including hazardous; engineering; project planning and integration. As part of his responsibilities, assessed Fluor corporate technical experts with specialized skills in waste management and sludge treatment and removal. Directed three deactivation projects of HAZCAT2 and 3 facilities involving radioactive and hazardous material removal from structures and systems to prepare for long term surveillance and maintenance or demolition. Under his leadership, Hanford completed fuel pin shipment; deactivated the Fast Flux Test Facility. Remediated nearly 200 miles of contaminated groundwater and soils.

**Fluor 2005-2006**

**Closure Project Director, DOE Fernald**

Led Fluor's team to complete cleanup of the \$4.2B DEO Fernald Closure Project and transfer management to DOE office of Legacy Management. Served as central interface with DOE, regulators, and union leaders to plan and integrate simultaneous environmental remediation, waste management (including hazardous), On Site Waste Disposal Facility (OSWDF) operations, utility removals and facility D&D projects. Oversaw waste operations for four OSWDF cells and excavated 2 million cubic yards of contaminated soils.

### **Robert Nichols – Fluor Federal Services, Inc., Director, GDP Facilities, Operations and Infrastructure**

**Fluor, 2012-2014**

**Deputy Site Project Director, PORTS D&D Project**

Directed the planning and execution of the PORTS D&D Project. Oversaw all aspects of the work, including facility characterization, modification, surveillance and maintenance and waste management (including hazardous waste). Directed and oversaw a 24/7 "cut and cap" operation that involved deactivating process gas equipment, piping and more than 7,000 components. Removed 60 of 200 cells and more than 1000 convertors and compressors from process buildings.

**Fluor, 2008-2009**

**Vice President of Closure Services and Infrastructure, Hanford**

Directed 750-person S&M, infrastructure, and service organization for DOE field offices and eight contractor organization. Oversaw water, sewer, and electrical utility operations and S&M in 365 facilities. Coordinated disposition of solid waste generated by these operations.

**Fluor, 1992-2003**

**Project Director, Fernald**

Led team to complete decommissioning of 124 facilities.

**Mark Duff, Fluor Federal Services, Inc., Director, Environmental Management**

**LATA Environmental Services of Kentucky, 2011 – present**

**Project Manager**

Designed and implemented waste management solutions for disposition of 1,500 cubic yards of PCB-mixed wastes to reduce disposal cost on the C-340 D&D project. Disposed more than 10,300 cubic yards of hazardous waste material with no violations or compliance issues over the past two years.

**Babcock and Wilcox, 2011**

**B&W Project Manager, Fukushima Daiichi Reactor Recovery Program, Japan**

Led a team of senior industry experts to support disaster recovery efforts in Japan. Established 28 technical approaches to address extensive groundwater and soil contamination following the 2011 earthquake and tsunami.

**Babcock and Wilcox, 2010 – 2011**

**Director for Management Operations, NNSA Y-12 Oak Ridge, TN**

Projects included large volumes of legacy material removal, old scrap yard characterization and remediation, and D&D of facilities. Responsible of the disposal of over 750,000 cubic feet of debris in the DOE Oak Ridge CERCLA cell.

**Gary Hines, Landfill Manager**

**LATA Environmental Services of Kentucky, LLC, 2010–2013**

**Waste Dispositions Supervisor, Paducah**

Managed RCRA, TSCA and LLW storage facilities under the Hazardous Waste Facility Permit KY8-890-008-982 and has actively backed up the landfill manager at the C-764-U Landfill since April 2012.

**Paducah Remediation Services, LLC, 2006 – 2010**

**Waste Disposition**

Managed RCRA, TSCA and LLW storage facilities under the Hazardous Waste Facility Permit KY8-890-008-982. Supported cleanup of numerous environmental cleanup projects. Supervised the cleanup of the DOE Material Storage Areas, which included characterizing, packaging, and shipping RCRA, TSCA, fissile and LLW to multiple treatment storage and disposal facilities.

**Weskem, LLC, February 2001–April 2006,**

**Supervisor**

Managed RCRA, TSCA and LLW storage facilities under the Hazardous Waste Facility Permit KY8-890-008-982. Supported cleanup of numerous environmental cleanup projects. Supervised the cleanup of the DOE Material Storage Areas, which included characterizing, packaging, and shipping of RCRA, TSCA, fissile and LLW to multiple TSD facilities.

**ENCLOSURE 2**

**APPLICATION FOR A MINOR MODIFICATION TO A  
FORMAL SOLID WASTE PERMIT FORM DEP 7017**



**ENERGY AND ENVIRONMENT CABINET**

**DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION OF WASTE MANAGEMENT  
200 FAIR OAKS LANE, SECOND FLOOR  
FRANKFORT, KY 40601  
TELEPHONE NUMBER 502-564-6716**

**Application for a Minor Modification  
To a Formal Solid Waste Permit  
Form DEP 7017 (6/10)**

Statutes and regulations may be viewed online at the following website  
address: <http://www.lrc.ky.gov/search.htm>

Solid waste application forms are available at the following website  
address: <http://www.waste.ky.gov>

**DWM OFFICAL USE ONLY**

AI#: 3059

Application #: APE20150001

**RECEIVED**

MAY 28 2015

DIVISION OF WASTE MANAGEMENT  
SOLID WASTE BRANCH

**GENERAL INSTRUCTIONS**

1. **APPLICABILITY** – This form must be completed and submitted to the Cabinet by persons who propose to apply for a minor modification of a formal permit.
2. **ASSISTANCE** – Questions regarding this form may be directed in writing to the Division of Waste Management (DWM), Solid Waste Branch at the address listed above, or by calling 502-564-6716.
3. **SUBMISSION** – Please type or print legibly in permanent ink. Submit the original and two (2) copies of the completed form to the DWM at the address listed above. If an item is not applicable, write “N/A” in the space provided.
4. **FEES** - Applicants must submit the appropriate filing fee at the time of application submittal in accordance with 401 KAR 47:090, Section 2.
5. **LAWS AND REGULATIONS** – Applicants are expected to understand and comply with all laws and regulations applicable to the facility.

To assist you in the submittal of a complete and accurate application, the Division has identified the most common errors found during the review process. These errors are listed below for your convenience.

1. Failure to provide the appropriate fee. See 401 KAR 47:090, Section 2. (6)(a).
2. Failure to complete the application.
3. Failure to comply with public notice requirements. See KRS 224.40-310 and 401 KAR 47:140, Section 7 for more information.
4. Failure to comply with Financial Assurance requirements. If the existing financial assurance is insufficient to fully cover current closure and post-closure costs, updates will be required.
5. Failure to properly sign and notarize the application. An individual with signature authority for the applicant as defined by KRS 224.01-010(44) and 401 KAR 47:160 must sign and notarize the appropriate signature sections of the application.
6. Failure to provide appropriate, fully completed attachments. Maps, drawings, narratives or any attachments that lack sufficient detail or drawings that are not signed, dated and sealed by a professional engineer or geologist may cause delays in the review and approval of the application.

**Warning!** Due to the potential for identity theft, do not provide social security numbers to the DWM as part of this application. If this information is required during the normal course of review of the application, a cabinet representative will contact the appropriate individual to acquire this information in a secure format.





25. Phone #: 270 - 859 - 4001 ext.

26. Fax #: - -

27. Cell #: - -

### Preparer Information

(Complete items 28 – 37 if the following information concerning the person preparing this application is different from the contact persons named in items 11 and 22.)

28. Preparers Name: Myrna E. Redfield

29. Company: Fluor Federal Services, Inc.

30. Mailing Address: 5511 Hobbs Road

31. City: Kevil

32. State: KY 33. Zip Code: 42052

34. E-mail Address: myrna.redfield@FFSPaducah.com

35. Phone #: 270 - 441 - 6097 ext.

36. Cell #: 270 - 559 - 5735

37. Fax #: - -

### Attachments and Descriptions

38. Type of modification you are seeking:

- A vertical expansion of less than two (2) years
- A Groundwater Assessment Plan
- A Groundwater Corrective Action Plan
- A modification to the Groundwater or Surface Water Monitoring Plan
- A modification to the sediment pond design
- A modification to the alternate daily cover
- A modification to the leachate collection system
- A modification to the Closure Plan
- A modification to change the name of the owner or facility
- A modification to change the closure or post closure cost estimate
- A modification to change the permit boundary other than waste boundary
- Other (describe): The purpose of this application for a minor modification to Solid Waste Permit Numbers SW073-00045, SW073-00014, and SW073-00015 is to designate

Fluor Federal Services, Inc., (FFS) as the Permittee (Operator), in lieu of LATA Kentucky. FFS will assume operational responsibility for the facility covered by the Permits under the DOE Task Order No. DE-DT0007774 effective 12:01 a.m. on July 26, 2015.

39. Provide, as Attachment 1, a detailed description of the permitting action you are seeking.

40. Provide, as Attachment 2, appropriate drawings, calculations, maps, cross-sections, etc.

**RECEIVED**

MAY 28 2015

DIVISION OF WASTE MANAGEMENT  
SOLID WASTE BRANCH

**Certification**

41. Pursuant to 401 KAR 47:160, Section 6, a person with signature authority such as a sole proprietor, owner, partner, corporate officer, plant manager, LLC member, mayor, county judge executive or other authorized official must sign this certification statement.

**NOTE: Consultants may not sign the following certification statement.**

**"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."**

Name of Person Signing (type or print): Cornelius Murphy

Title of Person Signing: Program Manager

Date: 5/26/2015

Signature per 401 KAR 47:160: Cornelius Murphy

Subscribed and sworn to before me this 26 day of May, Year 2015

Notary Public Signature: Waga E. Myers

State of Ky County of McCacken My commission expires: 3-25-17



## ATTACHMENT 1

Due to the U.S. Department of Energy's (DOE's) award of a new Task Order for the scope of activities previously performed by LATA Kentucky, minor modifications to DOE environmental permits are required. This application transmits a request for a minor modification to Solid Waste Permit Numbers SW073-00045, SW073-00014, and SW073-00015 to designate Fluor Federal Services, Inc. (FFS) at the Permittee (Operator), in lieu of LATA. FFS will assume all contractual responsibility for activities previously conducted by LATA Kentucky under the Permit at 12:01 a.m. on July 26, 2015.

This minor modification is in accordance with 401 KAR 47:140. The FFS Corporate Applicant and Key Personnel Disclosure Statements (forms DEP 7087) required by KRS 224.40 - 330 are provided in Enclosure 1.

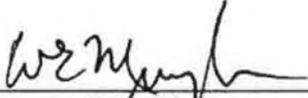
**ENCLOSURE 3**  
**CERTIFICATION STATEMENTS**

**CERTIFICATION**

**Document Identification: Transmittal of a Minor Permit Modification Request for Solid Waste Permit Nos. 073-00045, 073-00014, and 073-00015, Requesting Change in Operator, Paducah Gaseous Diffusion Plant, Agency Interest No. 3059**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision on 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 knowing violations.

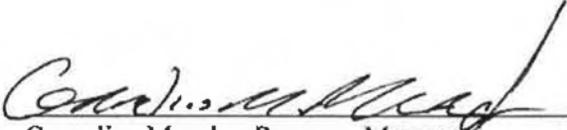
U.S. Department of Energy  
Owner

  
\_\_\_\_\_  
William E. Murphy, Manager  
Portsmouth/Paducah Project Office

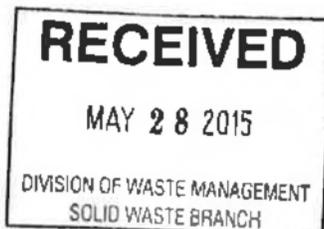
5/27/15  
Date Signed

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision on 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 knowing violations.

Fluor Federal Services, Inc.  
Operator

  
\_\_\_\_\_  
Cornelius Murphy, Program Manager

5/26/2015  
Date Signed

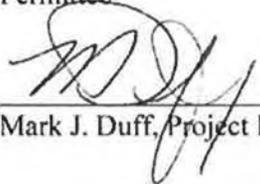


**CERTIFICATION**

**Document Identification: Transmittal of a Minor Permit Modification Request for Solid Waste Permit Nos. 073-00045, 073-00014, and 073-00015, Requesting Change in Operator, Paducah Gaseous Diffusion Plant, Agency Interest No. 3059**

I certify under penalty of law that the review of Solid Waste Landfill permit modification submitted by Fluor Federal Services, Inc. (FFS) relative to the transfer from LATA Environmental Services of Kentucky, LLC, to FFS of operation and all responsibility for meeting the permit conditions of Solid Waste Landfill permit (No. 073-00045, 073-00014, and 073-00015) was conducted under my supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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 knowing violations.

LATA Environmental Services of Kentucky, LLC  
Permittee

  
\_\_\_\_\_  
Mark J. Duff, Project Manager

5-26-15  
Date Signed

**RECEIVED**  
MAY 28 2015  
DIVISION OF WASTE MANAGEMENT  
SOLID WASTE BRANCH