



Kentucky Environmental and Public Protection Cabinet
Department for Environmental Protection
Division of Waste Management

PERMIT

Facility: U.S. Department of Energy - Paducah Gaseous Diffusion Plant
5600 Hobbs Rd
Paducah, Kentucky 42001-1410

Permittee (owner): U.S. Department of Energy
PO Box 1410
Paducah KY 420021410

Permittee (operator): Paducah Remediation Services, LLC
761 Veterans Avenue
Kevil, Kentucky 42053

Agency Interest: Dept of Energy-Paducah Gaseous Diffusion Plant
5600 Hobbs Rd
Paducah, Kentucky 42001-1410

The Division of Waste Management hereby grants the above-named facility a permit to engage in the activity or activities specified below. 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 #: SW07300014, SW07300015, 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
Total Disposal Area	36.50
Total Permitted Area	100.00

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 45:250, 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: 05-24-2007



Anthony R. Hatton, P.G.
Assistant Director

PERMIT

Permit Conditions:**Subject Items****ACTV0004 - Residential Landfill****Variances, 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, Iodine-131, 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 - APE 19930003 - Closure Plan
5. 02/21/95 - APE 19900002 - Closure Plan
6. 08/09/95 - APE 19890001 - Closure Plan
7. 03/04/96 - APE 19990001 - Closure Plan
8. 03/04/96 - APE 19930004 - Closure Plan
9. 03/04/96 - APE 19910003 - LR1 PR1 - Permit Renewal
10. 03/04/96 - APE 19910001 - Closure Plan
11. 03/06/96 - APE 19900003 - Closure Plan
12. 04/25/01 - APE 19980002 - LR1 PR2 - Permit Renewal
13. 02/01/01 - APE 20000002 - Plan for Abandonment and Replacement of Monitoring Wells
14. 03/14/02 - APE 20010002 - LIIMOGW1 - Groundwater Monitoring Plan
15. 02/16/06 - APE 20030005 - Permit Renewal
16. 03/16/06 - APE20060003 - Minor Modification - TEMPO permit revision

PERMIT

17. 03/20/06 - APE20060003 - Minor Modification - Updated TEMPO permit revision
18. 04/24/06 - APE20060005 - Minor Modification - Add Paducah Remediation Services, LLC to the permit as the operator
19. 05/24/07 - APE20060007 - Permit Renewal

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 - APE 19980001 - LIIPR2 - Permit Renewal
4. 02/01/01 - APE 20000003 - Plan for Abandonment and Replacement of Monitoring Wells
5. 03/14/02 - APE 20010003 - LIIMOGW1 - Groundwater Monitoring Plan
6. 02/16/06 - APE 20020005 - 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 to the permit as the operator
10. 05/24/07 - APE20060007 - Permit Renewal

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]

PERMIT

4. Working Face: The owner or operator shall not place an initial lift containing any object that may damage the bottom liner. The owner or operator shall protect the liner system with a layer of dirt, waste or similar blanket placed between operating equipment and the liner. The permittee shall comply with the Division of Waste Management Notice dated November 17, 2000 pertaining to liner protection. [401 KAR 48:090 Section 9(3)]
5. Recordkeeping: 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. Recordkeeping: 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. Recordkeeping: 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. Recordkeeping: 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. Closure: 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)]
2. 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]
3. Recordkeeping: 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)]

PERMIT

4. 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)]
5. No construction may begin on phases 6 thru 24 of the landfill until the seismic hazard reevaluation and fault study reports are approved by the Division. [401 KAR 47:120 Section 2, 401 KAR 48:050 Section 5, 401 KAR 48:070 Section 3]
6. 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)]
7. The permittee shall test the C-746-U Landfill leachate annually for 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, Iodine-131, 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]
8. 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]
9. In accordance with approved plan APE 200400005, 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 1(1), 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. 02/28/95 - APE19930001- LC1 NW 1 - Construction Permit
2. 01/19/96 - APE19950001 - LC1 MOMN1 -Minor Modification
3. 11/04/96 - 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 and Replacement of Monitoring Wells
7. 02/01/01 - APE20000001 - LC1 MOMN2 - 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 to the permit as the operator
17. 05/24/07 - APE20060007 - Permit Renewal

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 - U-LF GW Mon. 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 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 postclosure life of the facility. [401 KAR 48:300 Section 9, 401 KAR 47:120 Section 1]
5. Metal criteria shall be total metals to be measured in an unfiltered sample. [401 KAR 47:030 Section 6(1)]

PERMIT

6. 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]
7. 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]
8. Only a Kentucky Certified Monitoring Well Driller may construct or abandon monitoring wells. [401 KAR 6:320, 401 KAR 48:300 Section 7(3)]
9. 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 8]
10. 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]
11. 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]
12. 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]
13. 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:

6. 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, Iodine-131, 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 - S&T LF GW Mon. Group

Group Members: STRC0017 - Well MW-372; STRC0074 - Well MW-385; 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; STRC0065 - Well MW-225; STRC0071 - Well MW-353; STRC0073 - Well MW-384; STRC0075 - Well MW-386; STRC0076 - Well MW-387; STRC0077 - Well MW-388; STRC0078 - Well MW-389;

PERMIT

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 postclosure life of the facility. [401 KAR 48:300 Section 9, 401 KAR 47:120 Section 1]
5. Metal criteria shall be total metals to be measured in an unfiltered sample. [401 KAR 47:030 Section 6(1)]
6. 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]
7. 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]
8. Only a Kentucky Certified Monitoring Well Driller may construct or abandon monitoring wells. [401 KAR 6:320, 401 KAR 48:300 Section 7(3)]
9. 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 8]
10. 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]
11. 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]

PERMIT

12. 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]

13. 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:

5. At each approved groundwater monitoring location, the permittee shall monitor annually for Polychlorinated biphenyls (PCBs). [401 KAR 48:300 Section 11(3)]

6. 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]

7. 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, Iodine-131, 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 11(3)]

GMNP0002 - Methane Monitoring - U-LF Methane Mon. Group

Group Members: 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)]

PERMIT

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

GMNP0004 - Methane Monitoring - S-LF Methane Mon. Group

Group Members: ACTV0004 - Residential 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)]

PERMIT

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

Groundwater Monitoring Limits:

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GSTR0003	07429-90-5	Aluminum	quarterly			mg/L	Yes	
GSTR0003	07440-42-8	Boron	quarterly			mg/L	Yes	
GSTR0003	24959-67-9	Bromide	quarterly			mg/L	Yes	
GSTR0003	07440-70-2	Calcium	quarterly			mg/L	Yes	
GSTR0003		Cyanide, Total (as Cn)	quarterly			mg/L	Yes	
GSTR0003	07439-95-4	Magnesium, Total (as Mg)	quarterly			mg/L	Yes	
GSTR0003	07439-96-5	Manganese	quarterly			mg/L	Yes	
GSTR0003	07439-98-7	Molybdenum	quarterly			mg/L	Yes	
GSTR0003		Oxygen, Dissolved	quarterly			mg/L	Yes	
GSTR0003	07440-09-7	Potassium	quarterly			mg/L	Yes	
GSTR0003	07440-16-6	Rhodium	quarterly			mg/L	Yes	
GSTR0003	14808-79-8	Sulfate	quarterly			mg/L	Yes	
GSTR0003		Eh	quarterly			mV	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	00110-75-8	2-Chloroethyl Vinyl Ether	quarterly			mg/L	Yes	
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	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		
GSTR0003	07440-41-7	Beryllium, Total	quarterly			mg/L	Yes	

PERMIT

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GSTR0003	00075-27-4	Bromodichloromethane	quarterly			mg/L	Yes	
GSTR0003	07440-43-9	Cadmium, Total (as Cd)	quarterly		0.005	mg/L		
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	00124-48-1	Dibromochloromethane	quarterly			mg/L	Yes	
GSTR0003	00075-71-8	Dichlorodifluoromethane	quarterly			mg/L	Yes	
GSTR0003	00075-09-2	Dichloromethane	quarterly			mg/L	Yes	
GSTR0003	00064-17-5	Ethyl Alcohol	quarterly			mg/L	Yes	
GSTR0003	00100-41-4	Ethyl Benzene	quarterly			mg/L	Yes	
GSTR0003	00097-63-2	Ethyl Methacrylate	quarterly			mg/L	Yes	
GSTR0003	16984-48-8	Fluoride	quarterly		4.0	mg/L		
GSTR0003		Halides, Total Organic	quarterly			mg/L	Yes	
GSTR0003	00074-88-4	Iodomethane	quarterly			mg/L	Yes	
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	07439-97-6	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	00074-95-3	Methylene Bromide	quarterly			mg/L	Yes	

PERMIT

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GSTR0003	07440-02-0	Nickel, Total (as Ni)	quarterly			mg/L	Yes	
GSTR0003		Nitrogen, Nitrate Total (as N)	quarterly		10	mg/L		
GSTR0003		pH	quarterly			standard units	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	00100-42-5	Styrene	quarterly			mg/L	Yes	
GSTR0003	07440-05-3	Thallium, Total	quarterly			mg/L	Yes	
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	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		Gross Alpha	quarterly		15	pCi/L		
GSTR0003		Iodide	quarterly			mg/L	Yes	
GSTR0003		Gross Beta	quarterly		50	pCi/L		
GSTR0003	00127-18-4	Tetrachloroethylene (PCE)	quarterly			mg/L	Yes	
GSTR0003	00108-10-1	Methyl Isobutyl Ketone	quarterly			mg/L	Yes	
GSTR0003		Iodine-131	quarterly		3	pCi/L		
GSTR0003		Strontium-90	quarterly		8	pCi/L		
GSTR0003	10028-17-8	Tritium; Tritium, Total	quarterly		20,000	pCi/L	Yes	
GSTR0003	07440-61-1	Uranium, Total	quarterly		30	ug/L		
GSTR0003		Tantalum, Total	quarterly			mg/L	Yes	

PERMIT

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GSTR0003	14133-76-7	Technetium 99, Total	quarterly			pCi/L	Yes	
GSTR0003		Thorium-230	quarterly			pCi/L	Yes	
GSTR0003	13982-63-3	Radium-226	quarterly			pCi/L	Yes	
GSTR0003	01336-36-3	Polychlorinated Biphenyls (PCBs)	annually			mg/L	Yes	
GSTR0001	07429-90-5	Aluminum	quarterly			mg/L	Yes	
GSTR0001	07440-42-8	Boron	quarterly			mg/L	Yes	
GSTR0001	24959-67-9	Bromide	quarterly			mg/L	Yes	
GSTR0001	07440-70-2	Calcium	quarterly			mg/L	Yes	
GSTR0001		Cyanide, Total (as Cn)	quarterly			mg/L	Yes	
GSTR0001	07439-95-4	Magnesium, Total (as Mg)	quarterly			mg/L	Yes	
GSTR0001	07439-96-5	Manganese	quarterly			mg/L	Yes	
GSTR0001	07439-98-7	Molybdenum	quarterly			mg/L	Yes	
GSTR0001		Oxygen, Dissolved	quarterly			mg/L	Yes	
GSTR0001	07440-09-7	Potassium	quarterly			mg/L	Yes	
GSTR0001	07440-16-6	Rhodium	quarterly			mg/L	Yes	
GSTR0001	14808-79-8	Sulfate	quarterly			mg/L	Yes	
GSTR0001		Eh	quarterly			mV	Yes	
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	00110-75-8	2-Chloroethyl Vinyl Ether	quarterly			mg/L	Yes	

PERMIT

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
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	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	00075-27-4	Bromodichloromethane	quarterly			mg/L	Yes	
GSTR0001	07440-43-9	Cadmium, Total (as Cd)	quarterly		0.005	mg/L		
GSTR0001	00075-15-0	Carbon Disulfide	quarterly			mg/L	Yes	
GSTR0001	00056-23-5	Carbon Tetrachloride	quarterly		0.005	mg/L		
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	00124-48-1	Dibromochloromethane	quarterly			mg/L	Yes	
GSTR0001	00075-71-8	Dichlorodifluoromethane	quarterly			mg/L	Yes	
GSTR0001	00075-09-2	Dichloromethane	quarterly			mg/L	Yes	
GSTR0001	00064-17-5	Ethyl Alcohol	quarterly			mg/L	Yes	
GSTR0001	00100-41-4	Ethyl Benzene	quarterly			mg/L	Yes	
GSTR0001	00097-63-2	Ethyl Methacrylate	quarterly			mg/L	Yes	
GSTR0001	16984-48-8	Fluoride	quarterly		4.0	mg/L		

PERMIT

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GSTR0001		Halides, Total Organic	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	07439-97-6	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	
GSTR0001	00074-95-3	Methylene Bromide	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		pH	quarterly			standard units	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	00100-42-5	Styrene	quarterly			mg/L	Yes	
GSTR0001	07440-05-3	Thallium, Total	quarterly			mg/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	
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		Gross Alpha	quarterly		15	pCi/L		

PERMIT

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GSTR0001		Iodide	quarterly			mg/L	Yes	
GSTR0001		Gross Beta	quarterly		50	pCi/L		
GSTR0001	00127-18-4	Tetrachloroethylene (PCE)	quarterly			mg/L	Yes	
GSTR0001	00108-10-1	Methyl Isobutyl Ketone	quarterly			mg/L	Yes	
GSTR0001		Iodine-131	quarterly		3	pCi/L		
GSTR0001		Strontium-90	quarterly		8	pCi/L		
GSTR0001	10028-17-8	Tritium; Tritium, Total	quarterly		20,000	pCi/L	Yes	
GSTR0001	07440-61-1	Uranium, Total	quarterly		30	ug/L		
GSTR0001		Tantalum, Total	quarterly			mg/L	Yes	
GSTR0001	14133-76-7	Technetium 99, Total	quarterly			pCi/L	Yes	
GSTR0001		Thorium-230	quarterly			pCi/L	Yes	
GSTR0001	01336-36-3	Polychlorinated Biphenyls (PCBs)	quarterly			mg/L	Yes	
GSTR0001	13982-63-3	Radium-226	quarterly			pCi/L	Yes	
GSTR0001	13982-63-3	Radium-226	quarterly			pCi/L	Yes	

Surface Water Monitoring Limits:

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GMNP0003		Carbon, Total Organic	quarterly					Yes
GMNP0003		Chemical Oxygen Demand (COD)	quarterly					Yes
GMNP0003	16887-00-6	Chloride	quarterly					Yes
GMNP0003	07439-89-6	Iron, Total (as Fe)	quarterly					Yes
GMNP0003		pH	quarterly					Yes
GMNP0003	07440-23-5	Sodium	quarterly					Yes
GMNP0003		Solids, Total Dissolved	quarterly					Yes
GMNP0003		Solids, Total Suspended (TSS)	quarterly					Yes
GMNP0003		Specific Conductance	quarterly					Yes
GMNP0003	14808-79-8	Sulfate	quarterly					Yes
GMNP0003		Total Solids	quarterly					Yes

PERMIT

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GMNP0001		Carbon, Total Organic	quarterly					Yes
GMNP0001		Chemical Oxygen Demand (COD)	quarterly					Yes
GMNP0001	16887-00-6	Chloride	quarterly					Yes
GMNP0001	07439-89-6	Iron, Total (as Fe)	quarterly					Yes
GMNP0001		pH	quarterly					Yes
GMNP0001	07440-23-5	Sodium	quarterly					Yes
GMNP0001		Solids, Total Dissolved	quarterly					Yes
GMNP0001		Solids, Total Suspended (TSS)	quarterly					Yes
GMNP0001		Specific Conductance	quarterly					Yes
GMNP0001	14808-79-8	Sulfate	quarterly					Yes
GMNP0001		Total Solids	quarterly					Yes

Methane Monitoring Limits:

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GMNP0004		Continuous Facility Structure Explosive Gas Monitoring	continuously		25	% Lower Explosive Limit for Methane		
GMNP0004		Property Line Explosive Gas Monitoring	quarterly		100	% Lower Explosive Limit for Methane		
GMNP0004		Quarterly Facility Structure Explosive Gas Monitoring	quarterly		25	% Lower Explosive Limit for Methane		
GMNP0002		Continuous Facility Structure Explosive Gas Monitoring	continuously		25	% Lower Explosive Limit for Methane		

PERMIT

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
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		