From:	Tyler Smith
To:	Merle, Brian (EGLE); EGLE-ROP
Cc:	dpachan@republicservices.com; Gotz, Mariah; cbossick@republicservices.com
Subject:	Adrian Landfill, Inc. (SRN: N2369) - 2024 ROP Renewal Application - MI-ROP-N2369-2020b
Date:	Friday, August 9, 2024 11:31:07 AM
Attachments:	N2369 - Adrian Landfill ROP Renewal Application.pdf N2369 FINAL 01-20-23_Redlined Version.pdf

Good Morning,

On behalf of Adrian Landfill Inc., I am pleased to submit the attached ROP Renewal package for Adrian Landfill (SRN N2369). The original copies containing a wet signature from the site's responsible official are being shipped to the EGLE Jackson District Office for delivery via FedEx. The FedEx tracking number is 777885170077.

Please contact me with any questions or concerns regarding this submittal.

Thank you!

Tyler G. Smith
Environmental Scientist
Environmental Information Logistics, LLC
130 E. Main Street
Caledonia, MI 49316
(616) 558-3978

REPUBLIC SERVICES

Sustainability in Action

August 9, 2024

EGLE – Air Quality Division
Jackson District Office
State Office Building, 4th Floor
301 E. Louis B Glick Highway
Jackson, MI 49201

RE: Renewable Operating Permit Application - MI-ROP-N2369-2020b
Adrian Landfill, Inc. - SRN N2369
Fed Ex Tracking No. 777885170077

Adrian Landfill, Inc. (Adrian) respectfully submits this Renewable Operating Permit (ROP) application for Adrian Landfill in Adrian, Michigan.

Included in this application package are all required documents for an administratively complete ROP renewal package including:

- All required EGLE ROP Renewal Forms (with Responsible Official Certification)
- Existing ROP mark-up for requested revisions

One (1) hard copy with the original signature of the Responsible Official is included with this submittal. A copy of this renewal package is also being submitted electronically. If you have any questions, please contact Tyler Smith of Environmental Information Logistics (EIL), LLC at (616) 558-3978 or the undersigned at (269) 578-9305.

Sincerely,
Adrian Landfill, Inc.

David Pachan

Attachment: ROP Renewal Application

Cc: Tyler Smith – EIL, LLC (Electronically)
Adrian Operating Record

EGLE

RENEWABLE OPERATING PERMIT
RENEWAL APPLICATION FORM

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Refer to instructions for additional information to complete the Renewable Operating Permit Renewal Application Form.

GENERAL INSTRUCTIONS

This application form should be submitted as part of an administratively complete application package for renewal of a Renewable Operating Permit (ROP). This application form consists of nine parts. Parts A – H must be completed for all applications and must also be completed for each section of a sectioned ROP. Answer all questions in all parts of the form unless directed otherwise. Detailed instructions for this application form can be found at http://michigan.gov/air (select the Permits Tab, "Renewable Operating Permits (ROP)/Title V", then "ROP Forms & Templates").

PART A: GENERAL INFORMATION

Enter information about the source, owner, contact person and the responsible official.

SOURCE INFORMATION

SRN	SIC Code	NAICS Code	Existing ROP Number	Section Number (if applicable)
N2369	4953	562212	MI-ROP-N2369-2020b	01

Source Name
Adrian Landfill, Inc.

Street Address
1970 North Ogden Highway

City	State	ZIP Code	County
Adrian	MI	49221	Lenawee County

Section/Town/Range (if address not available)

Source Description
Municipal Solid Waste Landfill

☐ Check here if any of the above information is different than what appears in the existing ROP. Identify any changes on the marked-up copy of your existing ROP.

OWNER INFORMATION

Owner Name	Section Number (if applicable)
Republic Services of Michigan LLC.	01

Mailing address (☐ check if same as source address)
14800 P Drive North

City	State	ZIP Code	County	Country
Marshall	MI	49068	Calhoun	USA

☐ Check here if any information in this ROP renewal application is confidential. Confidential information should be identified on an Additional Information (AI-001) Form.

SRN: N2369	Section Number (if applicable): 01

PART A: GENERAL INFORMATION (continued)

At least one contact and responsible official must be identified. Additional contacts and responsible officials may be included if necessary.

CONTACT INFORMATION

Contact 1 Name	Title			
David Pachan	Environmental Manager			
Company Name & Mailing address (☐ check if same as source address)				
Adrian Landfill, Inc. 14800 P Drive North				
City	State	ZIP Code	County	Country
Marshall	MI	49068	Calhoun	USA
Phone number		E-mail address		
(269) 578-9305		dpachan@republicservices.com		

Contact 2 Name (optional)	Title			
Company Name & Mailing address (☐ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name	Title			
Jon Gagnon	General Manager			
Company Name & Mailing address (☐ check if same as source address)				
Adrian Landfill, Inc. 5400 Cogswell Road				
City	State	ZIP Code	County	Country
Wayne	MI	48184	Wayne	USA
Phone number		E-mail address		
(904) 607-9780		jgagnon@republicservices.com		

Responsible Official 2 Name (optional)	Title			
Company Name & Mailing address (☐ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

☐ Check here if an AI-001 Form is attached to provide more information for Part A. Enter AI-001 Form ID:

SRN: N2369	Section Number (if applicable): 01

PART B: APPLICATION SUBMITTAL and CERTIFICATION by Responsible Official

Identify the items that are included as part of your administratively complete application in the checklist below. For your application to be complete, it must include information necessary to evaluate the source and to determine all applicable requirements. Answer the compliance statements as they pertain to all the applicable requirements to which the source is subject. The source's Responsible Official must sign and date this form.

Listing of ROP Application Contents. Check the box for the items included with your application.	
☒ Completed ROP Renewal Application Form (and any AI-001 Forms) (required)	☐ Compliance Plan/Schedule of Compliance
☒ Mark-up copy of existing ROP using official version from the AQD website (required)	☐ Stack information
☐ Copies of all Permit(s) to Install (PTIs) that have not been incorporated into existing ROP (required)	☐ Acid Rain Permit Initial/Renewal Application
☐ Criteria Pollutant/Hazardous Air Pollutant (HAP) Potential to Emit Calculations	☐ Cross-State Air Pollution Rule (CSAPR) Information
☐ MAERS Forms (to report emissions not previously submitted)	☐ Confidential Information
☐ Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP	☒ Paper copy of all documentation provided (required)
☐ Compliance Assurance Monitoring (CAM) Plan	☒ Electronic documents provided (optional)
☐ Other Plans (e.g., Malfunction Abatement, Fugitive Dust, Operation and Maintenance, etc.)	☐ Other, explain:

Compliance Statement	
This source is in compliance with **all** of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP.	☒ Yes ☐ No
This source will continue to be in compliance with all of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP.	☒ Yes ☐ No
This source will meet in a timely manner applicable requirements that become effective during the permit term.	☒ Yes ☐ No
The method(s) used to determine compliance for each applicable requirement is/are the method(s) specified in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and all other applicable requirements not currently contained in the existing ROP.	
If any of the above are checked No, identify the emission unit(s) or flexible group(s) affected and the specific condition number(s) or applicable requirement for which the source is or will be out of compliance at the time of issuance of the ROP renewal on an AI-001 Form. Provide a compliance plan and schedule of compliance on an AI-001 Form.	

Name and Title of the Responsible Official (Print or Type)	
As a Responsible Official, I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate, and complete.	
Signature of Responsible Official	**Date** 08/06/24

PART C: SOURCE REQUIREMENT INFORMATION

Answer the questions below for specific requirements or programs to which the source may be subject.

C1.	Actual emissions and associated data from **all** emission units with applicable requirements (including those identified in the existing ROP, Permits to Install and other equipment that have not yet been incorporated into the ROP) are required to be reported in MAERS. Are there any emissions and associated data that have not been reported in MAERS for the most recent emissions reporting year? If Yes, identify the emission unit(s) that was/were not reported in MAERS on an AI-001 Form. Applicable MAERS form(s) for unreported emission units must be included with this application.	☐ Yes ☒ No
C2.	Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)	☐ Yes ☒ No
C3.	Is this source subject to the federal Chemical Accident Prevention Provisions? (Section 112(r) of the Clean Air Act Amendments, 40 CFR Part 68) If Yes, a Risk Management Plan (RMP) and periodic updates must be submitted to the USEPA. Has an updated RMP been submitted to the USEPA?	☐ Yes ☒ No ☐ Yes ☐ No
C4.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NOx, PM10, PM2.5, SO_2, VOC, lead) emissions? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers, or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. If No, criteria pollutant potential emission calculations do not need to be included.	☐ Yes ☒ No
C5.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the PTE for hazardous air pollutants (HAPs) regulated by Section 112 of the federal Clean Air Act? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. Fugitive emissions must be included in HAP emission calculations. If No, HAP potential emission calculations do not need to be included.	☐ Yes ☒ No
C6.	Are any emission units subject to the Cross-State Air Pollution Rule (CSAPR)? If Yes, identify the specific emission unit(s) subject to CSAPR on an AI-001 Form.	☐ Yes ☒ No
C7.	Are any emission units subject to the federal Acid Rain Program? If Yes, identify the specific emission unit(s) subject to the federal Acid Rain Program on an AI-001 Form. Is an Acid Rain Permit Renewal Application included with this application?	☐ Yes ☒ No ☐ Yes ☒ No
C8.	Are any emission units identified in the existing ROP subject to compliance assurance monitoring (CAM)? If Yes, identify the specific emission unit(s) subject to CAM on an AI-001 Form. If a CAM plan has not been previously submitted to EGLE, one must be included with the ROP renewal application on an AI-001 Form. If the CAM Plan has been updated, include an updated copy. Is a CAM plan included with this application? If a CAM Plan is included, check the type of proposed monitoring included in the Plan: 1. Monitoring proposed by the source based on performance of the control device, or 2. Presumptively Acceptable Monitoring, if eligible	☐ Yes ☒ No ☐ Yes ☐ No ☐ ☐
C9.	Does the source have any plans such as a malfunction abatement plan, fugitive dust plan, operation/maintenance plan, or any other monitoring plan that is referenced in an existing ROP, Permit to Install requirement, or any other applicable requirement? If Yes, then a copy must be submitted as part of the ROP renewal application.	☐ Yes ☒ No
C10.	Are there any specific requirements that the source proposes to be identified in the ROP as non-applicable? If Yes, then a description of the requirement and justification must be submitted as part of the ROP renewal application on an AI-001 Form.	☐ Yes ☒ No

☐ Check here if an AI-001 Form is attached to provide more information for Part C. Enter AI-001 Form ID: **AI-**

SRN: N2369	Section Number (if applicable): 01

PART D: PERMIT TO INSTALL (PTI) EXEMPT EMISSION UNIT INFORMATION

Review all emission units at the source and answer the question below.

D1. Does the source have any emission units that do not appear in the existing ROP but are required to be listed in the ROP application under R 336.1212(4) (Rule 212(4)) of the Michigan Air Pollution Control Rules? If Yes, identify the emission units in the table below. ☒ Yes ☐ No

If No, go to Part E.

Note: Emission units that are subject to process specific emission limitations or standards, even if identified in Rule 212, must be captured in either Part G or H of this application form. Identical emission units may be grouped (e.g. PTI exempt Storage Tanks).

Emission Unit ID	**Emission Unit Description**	**Rule 212(4) Citation** [e.g. Rule 212(4)(c)]	**Rule 201 Exemption Rule Citation** [e.g. Rule 282(2)(b)(i)]
EUHEATERS-OFFICE	127,000 BTU Natural Gas Furnace	R 336.1212(4)(c)	R 336.1282(2)(b)(i)
EULEACHATETANK	70,000 gallon leachate containment tank	R 336.1212(3)(f)	R 336.1285(2)(aa)
EUAIRCOMPRESSOR1	1.8 Hp, 26 gallon portable air compressor for UV building	R 336.1212(4)(e)	R 336.1285(2)(g)
EUAIRCOMPRESSOR2	5 Hp, 20 gallon portable air compressor in maintenance shop	R 336.1212(4)(e)	R 336.1285(2)(g)
EUDRUM	One (1) 55 gallon drum for storage	R 336.1212(4)(d)	R 336.284(2)(g)(i)
EUTANK1	275 gallon tank for pumping operations at site	R 336.1212(4)(d)	R 336.284(2)(g)(i)
EUHEATER-SHOP	One (1) kerosine forced air portable heater	R 336.1212(4)(c)	R 336.1282(2)(b)(i)

Comments:

☐ Check here if an AI-001 Form is attached to provide more information for Part D. Enter AI-001 Form ID: **AI-**

PART E: EXISTING ROP INFORMATION

Review all emission units and applicable requirements (including any source wide requirements) in the existing ROP and answer the questions below as they pertain to **all** emission units and **all** applicable requirements in the existing ROP.

E1. Does the source propose to make any additions, changes or deletions to terms, conditions and underlying applicable requirements as they appear in the existing ROP? If Yes, identify changes and additions on Part F, Part G and/or Part H.	☒ Yes ☐ No
E2. For each emission unit(s) identified in the existing ROP, all stacks with applicable requirements are to be reported in MAERS. Are there any stacks with applicable requirements for emission unit(s) identified in the existing ROP that were not reported in the most recent MAERS reporting year? If Yes, identity the stack(s) that was/were not reported on applicable MAERS form(s).	☐ Yes ☒ No
E3. Have any emission units identified in the existing ROP been modified or reconstructed that required a PTI? If Yes, complete Part F with the appropriate information.	☐ Yes ☒ No
E4. Have any emission units identified in the existing ROP been dismantled? If Yes, identify the emission unit(s) and the dismantle date in the comment area below or on an AI-001 Form.	☐ Yes ☒ No

Comments:

☐ Check here if an AI-001 Form is attached to provide more information for Part E. Enter AI-001 Form ID: **AI-**

SRN: N2369	Section Number (if applicable): 01

PART F: PERMIT TO INSTALL (PTI) INFORMATION

Review all emission units and applicable requirements at the source and answer the following questions as they pertain to **all** emission units with PTIs. Any PTI(s) identified below must be attached to the application.

F1. Has the source obtained any PTIs where the applicable requirements from the PTI have not been incorporated into the existing ROP? If Yes, complete the following table. If No, go to Part G. ☐ Yes ☒ No

Permit to Install Number	Emission Units/Flexible Group ID(s)	Description (*Include Process Equipment, Control Devices and Monitoring Devices*)	Date Emission Unit was Installed/ Modified/ Reconstructed

F2. Do any of the PTIs listed above change, add, or delete terms/conditions to **established emission units** in the existing ROP? If Yes, identify the emission unit(s) or flexible group(s) affected in the comments area below or on an AI-001 Form and identify all changes, additions, and deletions in a mark-up of the existing ROP. ☐ Yes ☐ No

F3. Do any of the PTIs listed above identify **new emission units** that need to be incorporated into the ROP? If Yes, submit the PTIs as part of the ROP renewal application on an AI-001 Form, and include the new emission unit(s) or flexible group(s) in the mark-up of the existing ROP. ☐ Yes ☐ No

F4. Are there any stacks with applicable requirements for emission unit(s) identified in the PTIs listed above that were not reported in MAERS for the most recent emissions reporting year? If Yes, identity the stack(s) that were not reported on the applicable MAERS form(s). ☐ Yes ☐ No

F5. Are there any proposed administrative changes to any of the emission unit names, descriptions or control devices in the PTIs listed above for any emission units not already incorporated into the ROP? If Yes, describe the changes on an AI-001 Form. ☐ Yes ☐ No

Comments:

☐ Check here if an AI-001 Form is attached to provide more information for Part F. Enter AI-001 Form ID: **AI-**

SRN: N2369	Section Number (if applicable): 01

PART G: EMISSION UNITS MEETING THE CRITERIA OF RULES 281(2)(h), 285(2)(r)(iv), 287(2)(c), OR 290

Review all emission units and applicable requirements at the source and answer the following questions.

G1. Does the source have any new and/or existing emission units which do not already appear in the existing ROP and which meet the criteria of Rules 281(2)(h), 285(2)(r)(iv), 287(2)(c), or 290.

If Yes, identify the emission units in the table below. If No, go to Part H. ☐ Yes ☒ No

Note: If several emission units were installed under the same rule above, provide a description of each and an installation/modification/reconstruction date for each.

Origin of Applicable Requirements	**Emission Unit Description – *Provide Emission Unit ID and a description of Process Equipment, Control Devices and Monitoring Devices***	**Date Emission Unit was Installed/ Modified/ Reconstructed**
☐ Rule 281(2)(h) or 285(2)(r)(iv) cleaning operation		
☐ Rule 287(2)(c) surface coating line		
☐ Rule 290 process with limited emissions		

Comments:

☐ Check here if an AI-001 Form is attached to provide more information for Part G. Enter AI-001 Form ID: **AI-**

PART H: REQUIREMENTS FOR ADDITION OR CHANGE

Complete this part of the application form for all proposed additions, changes or deletions to the existing ROP. This includes state or federal regulations that the source is subject to and that must be incorporated into the ROP or other proposed changes to the existing ROP. **Do not include additions or changes that have already been identified in Parts F or G of this application form.** If additional space is needed copy and complete an additional Part H.

Complete a separate Part H for each emission unit with proposed additions and/or changes.

H1. Are there changes that need to be incorporated into the ROP that have not been identified in Parts F and G? If Yes, answer the questions below.	☒ Yes	☐ No
H2. Are there any proposed administrative changes to any of the existing emission unit names, descriptions or control devices in the ROP? If Yes, describe the changes in questions H8 – H16 below and in the affected Emission Unit Table(s) in the mark-up of the ROP.	☐ Yes	☒ No
H3. Does the source propose to add a new emission unit or flexible group to the ROP not previously identified in Parts F or G? If Yes, identify and describe the emission unit name, process description, control device(s), monitoring device(s) and applicable requirements in questions H8 – H16 below and in a new Emission Unit Table in the mark-up of the ROP. See instructions on how to incorporate a new emission unit/flexible group into the ROP.	☐ Yes	☒ No
H4. Does the source propose to add new state or federal regulations to the existing ROP? If Yes, on an AI-001 Form, identify each emission unit/flexible group that the new regulation applies to and identify each state or federal regulation that should be added. Also, describe the new requirements in questions H8 – H16 below and add the specific requirements to existing emission units/flexible groups in the mark-up of the ROP, create a new Emission Unit/Flexible Group Table, or add an AQD template table for the specific state or federal requirement.	☐ Yes	☒ No
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were not incorporated into the existing ROP? If Yes, list the CO/CJ number(s) below and add or change the conditions and underlying applicable requirements in the appropriate Emission Unit/Flexible Group Tables in the mark-up of the ROP.	☐ Yes	☒ No
H6. Does the source propose to add, change and/or delete **source-wide** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	☒ No
H7. Are you proposing to **streamline** any requirements? If Yes, identify the streamlined and subsumed requirements and the EU ID, and provide a justification for streamlining the applicable requirement below.	☐ Yes	☒ No

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H8. Does the source propose to add, change and/or delete **emission limit** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☐ Yes ☒ No

H9. Does the source propose to add, change and/or delete **material limit** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☐ Yes ☒ No

H10. Does the source propose to add, change and/or delete **process/operational restriction** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☐ Yes ☒ No

H11. Does the source propose to add, change and/or delete **design/equipment parameter** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☐ Yes ☒ No

H12. Does the source propose to add, change and/or delete **testing/sampling** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☒ Yes ☐ No

EUOPENFLARE-1 was last tested in compliance on December 13, 2021. The facility requests the permit language that states “Within 180 days of permit issuance, the permittee must verify visible emissions, the net heating value, and exit velocity” be changed to “Every five years from the date of the last test, the permittee must verify visible emissions, the net heating value, and exit velocity”. This testing would then be required on or before December 13, 2026.

H13. Does the source propose to add, change and/or delete **monitoring/recordkeeping** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☐ Yes ☒ No

H14. Does the source propose to add, change and/or delete **reporting** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☐ Yes ☒ No

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H15. Does the source propose to add, change and/or delete **stack/vent restrictions**? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☐ Yes ☒ No

H16. Does the source propose to add, change and/or delete any **other** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☒ Yes ☐ No

The facility is removing the EUCOLDCLENER-1/FGCOLDCLEANERS-1 sections from the site's Title V operating permit. This unit was removed from the site on November 21, 2023. These changes have been mirrored in the redline permit that is being attached with this renewal application.

H17. Does the source propose to add terms and conditions for an alternative operating scenario or intra-facility trading of emissions? If Yes, identify the proposed conditions in a mark-up of the corresponding section of the ROP and provide a justification below. ☐ Yes ☒ No

☐ Check here if an AI-001 Form is attached to provide more information for Part H. Enter AI-001 Form ID: **AI-**

EGLE

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

	SRN:	Section Number (if applicable):

1. Additional Information ID
AI-

Additional Information

2. Is This Information Confidential? ☐ Yes ☐ No

Page of

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION

EFFECTIVE DATE: March 4, 2020
REVISION DATES: August 16, 2022, January 20, 2023

ISSUED TO

Adrian Landfill, Inc.
and
Adrian Energy Associates, LLC

State Registration Number (SRN): N2369

LOCATED AT

1970 and 1900 North Ogden Highway, Adrian, Lenawee County, Michigan 49221

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-N2369-~~2020b~~

Expiration Date: March 4, 2025

Administratively Complete ROP Renewal Application
~~Due Between September 4, 2023 and September 4, 2024~~

This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Pursuant to Rule 210(1) of the administrative rules promulgated under Act 451, this ROP constitutes the permittee's authority to operate the stationary source identified above in accordance with the general conditions, special conditions and attachments contained herein. Operation of the stationary source and all emission units listed in the permit are subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-N2369-~~2020b~~

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(1) of Act 451. Pursuant to Rule 214a of the administrative rules promulgated under Act 451, the terms and conditions herein, identified by the underlying applicable requirement citation of Rule 201(1)(a), constitute a federally enforceable PTI. The PTI terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

Michigan Department of Environment, Great Lakes, and Energy

_____
Scott Miller, Jackson District Supervisor

TABLE OF CONTENTS

AUTHORITY AND ENFORCEABILITY

For the purpose of this permit, the **permittee** is defined as any person who owns or operates an emission unit at a stationary source for which this permit has been issued. The **department** is defined in Rule 104(d) as the Director of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) or his or her designee.

The permittee shall comply with all specific details in the permit terms and conditions and the cited underlying applicable requirements. All terms and conditions in this ROP are both federally enforceable and state enforceable unless otherwise footnoted. Certain terms and conditions are applicable to most stationary sources for which an ROP has been issued. These general conditions are included in Part A of this ROP. Other terms and conditions may apply to a specific emission unit, several emission units which are represented as a flexible group, or the entire stationary source which is represented as a Source-Wide group. Special conditions are identified in Parts B, C, D and/or the appendices.

In accordance with Rule 213(2)(a), all underlying applicable requirements are identified for each ROP term or condition. All terms and conditions that are included in a PTI are streamlined, subsumed and/or is state-only enforceable will be noted as such.

In accordance with Section 5507 of Act 451, the permittee has included in the ROP application a compliance certification, a schedule of compliance, and a compliance plan. For applicable requirements with which the source is in compliance, the source will continue to comply with these requirements. For applicable requirements with which the source is not in compliance, the source will comply with the detailed schedule of compliance requirements that are incorporated as an appendix in this ROP. Furthermore, for any applicable requirements effective after the date of issuance of this ROP, the stationary source will meet the requirements on a timely basis, unless the underlying applicable requirement requires a more detailed schedule of compliance.

Issuance of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

Section 1 – Adrian Landfill, Inc.

A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**

- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**

- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**

2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**

3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**

4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities: **(R 336.1213(1)(d))**
   a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
   c. Inspect, at reasonable times, any of the following:
      i. Any stationary source.
      ii. Any emission unit.
      iii. Any equipment, including monitoring and air pollution control equipment.
      iv. Any work practices or operations regulated or required under the ROP.
   d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.

5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**

7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**

8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2).[2] **(R 336.1370)**

10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

Emission Limits

11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in Subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following:"[2] **(R 336.1301(1))**
    a. A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
    b. A limit specified by an applicable federal new source performance standard.

    The grading of visible emissions shall be determined in accordance with Rule 303.

12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
    a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.[1] **(R 336.1901(a))**
    b. Unreasonable interference with the comfortable enjoyment of life and property.[1] **(R 336.1901(b))**

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).[2] **(R 336.2001)**

14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**

15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate. **(R 336.1213(3)(b))**
    a. The date, location, time, and method of sampling or measurements.
    b. The dates the analyses of the samples were performed.
    c. The company or entity that performed the analyses of the samples.
    d. The analytical techniques or methods used.
    e. The results of the analyses.
    f. The related process operating conditions or parameters that existed at the time of sampling or measurement.

17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**

19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**

20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**

21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
    a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
    b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
    c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: **(R 336.1213(3)(c))**
    a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
    b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that; "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete." The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.

23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**

24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**

25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.[2] **(R 336.1912)**

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
    a. The applicable requirements are included and are specifically identified in the ROP.
    b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

    Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
    a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
    b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
    c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**

28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
    a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
    b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
    c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
    d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
    e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**

29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**

31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**

32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(10))**

33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
    a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
    c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
    d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(9))**

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.

37. If the permittee is subject to 40 CFR Part 82 and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).

39. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates as provided in 40 CFR 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
    c. The date on which a regulated substance is first present above a threshold quantity in a process.

40. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.

41. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR Part 68)**

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan’s State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

Permit to Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.[2] **(R 336.1201(1))**

44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.[2] **(R 336.1201(8), Section 5510 of Act 451)**

45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.[2] **(R 336.1219)**

46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.[2] **(R 336.1201(4))**

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

C. EMISSION UNIT SPECIAL CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EULANDFILL-1	This emission unit represents the general Municipal Solid Waste (MSW) Landfill in which the collected landfill gas is sent primarily to a treatment system.	01-01-1962 06-01-1999	FGLANDFILL-OOO-1 FGLANDFILL-AAAA-1
EUACTIVECOLL-1	This emission unit represents the active landfill gas collection system at the landfill that uses gas mover equipment to draw landfill gas from the wells and moves the gas to the control equipment.	Various	FGLANDFILL-OOO-1 FGLANDFILL-AAAA-1 FGACTIVECOLL-OOO-1 FGACTIVECOLL-AAAA-1
EUOPENFLARE-1	A non-assisted open combustor without an enclosure or shroud.	10-13-2006	FGLANDFILL-OOO-1 FGLANDFILL-AAAA-1 FGOPENFLARE-OOO-1 FGOPENFLARE-AAAA-1
EUASBESTOS-1	Any active or inactive asbestos disposal site.	NA	FGLANDFILL-OOO-1 FGLANDFILL-AAAA-1
EUAIRSTRIPPER-1	Purge water treatment system using an air stripper. The air stripper treats groundwater extracted at the closed portion of the landfill to remove volatile organic compounds. The aeration “spray” chamber consists of an 8-foot diameter and 30-foot long fractionation tank, ten spray nozzles and fan. Air flow is about 186 cubic feet per minute.	02-01-1991 02-15-1991	NA
~~EUCOLDCLEANERS-1~~	~~Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.~~	~~Various~~	~~FGCOLDCLEANER-1~~

EUASBESTOS-1
EMISSION UNIT CONDITIONS

DESCRIPTION

Any active or inactive asbestos disposal site.

Flexible Group ID: FGLANDFILL-OOO-1, FGLANDFILL-AAAA-1

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. If the landfill accepts asbestos-containing waste materials from a source covered under 40 CFR 61.149, 40 CFR 61.150, or 40 CFR 61.155, the permittee shall meet the following operational requirements: **(40 CFR 61.154)**

   a. Either there must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or the requirements of 40 CFR 61.154(c) or (d) must be met. **(40 CFR 61.154(a))**

   b. Unless a natural barrier adequately deters access by the general public, either warning signs and fencing must be installed and maintained as follows, or the requirements of 40 CFR 61.154(c)(1) must be met. **(40 CFR 61.154(b))**

      i. Warning signs must be displayed at all entrances and at intervals of 100 m (330 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited. **(40 CFR 61.154(b)(1))**

         The warning signs must:

         (1) Be posted in such a manner and location that a person can easily read the legend. **(40 CFR 61.154(b)(1)(i))**

         (2) Conform to the requirements of 51 cm by 36 cm (20 inches by 14 inches) upright format signs specified in 29 CFR 1910.145(d)(4) and 40 CFR 61.154(b)(1). **(40 CFR 61.154(b)(1)(ii))**

         (3) The permittee shall display the legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in 40 CFR 61.154(b)(1). Spacing between any two lines must be at least equal to the height of the upper of the two lines. **(40 CFR 61.154(b)(1)(iii))**

      ii. The perimeter of the disposal site must be fenced in a manner adequate to deter access by the general public. **(40 CFR 61.154(b)(2))**

      iii. Upon request and supply of appropriate information, the appropriate AQD District Supervisor will determine whether a fence or a natural barrier adequately deters access by the general public. **(40 CFR 61.154(b)(3))**

c. Rather than meet the no visible emission requirement of 40 CFR 61.154(a), at the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall: **(40 CFR 61.154(c))**

   i. Be covered with at least 15 centimeters (6 inches) of compacted non-asbestos-containing material, or **(40 CFR 61.154(c)(1))**

   ii. Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the appropriate AQD District Supervisor. For purposes of 40 CFR 61.154(c)(2), any used, spent, or other waste oil is not considered a dust suppression agent. **(40 CFR 61.154(c)(2))**

d. Rather than meet the no visible emission requirement of 40 CFR 61.154(a), use an alternative emissions control method that has received prior written approval by the appropriate AQD District Supervisor according to the procedures described in 40 CFR 61.149(c)(2). **(40 CFR 61.154(d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The placement of gas collection devices determined in paragraph 40 CFR 62.16728(a)(1) shall control all gas producing areas, except as provided by 40 CFR 62.16728(a)(3)(i) and (a)(3)(ii). **(40 CFR 62.16728 (a)(3))**

   a. Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under 40 CFR 62.16726(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area and shall be provided to the AQD upon request. **(40 CFR 62.16728(a)(3)(i))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. For all asbestos-containing waste material received, the permittee of the active waste disposal site shall:

   a. Maintain waste shipment records that include the following information: **(40 CFR 61.154(e)(1))**

      i. The name, address, and telephone number of the waste generator. **(40 CFR 61.154(e)(1)(i))**

      ii. The name, address, and telephone number of the transporter(s). **(40 CFR 61.154(e)(1)(ii)**

      iii. The quantity of the asbestos-containing waste material in cubic meters (cubic yards). **(40 CFR 61.154(e)(1)(iii))**

      iv. The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the local, State, or USEPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or USEPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report. **(40 CFR 61.154(e)(1)(iv))**

      v. The date of the receipt. **(40 CFR 61.154(e)(1)(v))**

   b. As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator. **(40 CFR 61.154(e)(2))**

c. Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the local, State, or USEPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record). **(40 CFR 61.154(e)(3))**

2. The permittee shall maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area storage. **(40 CFR 61.154(f))**

3. The permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in 40 CFR 62.16728(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in 40 CFR 62.16728(a)(3)(ii). **(40 CFR 62.16726(d)(2))**

4. The permittee shall keep records of one of the following regarding any active disposal site where asbestos containing materials have been deposited: **(R 336.1213(3))**

   a. USEPA Test Method 22 readings demonstrating no visible emissions from any active disposal site where asbestos containing materials have been deposited. These readings are to be taken for 15 minutes each operating day.

   b. Records of the date asbestos waste is received, the amount and type of material that has been used to cover the asbestos waste, and documentation that the cover material was applied in the frequency required in SC III.1.c of this table.

   c. Records pursuant to an alternative emissions control method that has prior written approval of the AQD District Supervisor as noted in SC III.1.d of this table.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall submit to the appropriate AQD District Supervisor, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities. **(40 CFR 61.154(h))**

5. The permittee shall furnish upon request and make available during normal business hours for inspection by the AQD, all records required by 40 CFR Part 61. **(40 CFR 61.154(i))**

6. Notify the AQD Technical Programs Unit and appropriate AQD District Office in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the appropriate AQD District Office at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. **(40 CFR 61.154(j))**

   Include the following information in the notice:

   a. Scheduled starting and completion dates. **(40 CFR 61.154(j)(1))**

   b. Reason for disturbing the waste. **(40 CFR 61.154(j)(2))**

c. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the AQD may require changes in the emission control procedures to be used. **(40 CFR 61.154(j)(3))**

d. Location of any temporary storage site and the final disposal site. **(40 CFR 61.154(j)(4))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

EUAIRSTRIPPER-1
EMISSION UNIT CONDITIONS

DESCRIPTION

Purge water treatment system using an air stripper. The air stripper treats groundwater extracted at the closed portion of the landfill to remove volatile organic compounds. The aeration "spray" chamber consists of an 8 foot diameter and 30 foot long fractionation tank, ten spray nozzles and fan. Air flow is about 186 cubic feet per minute.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	0.005 pph[2]	Semiannual influent and effluent water sample testing and weekly water flow rate monitoring according to protocol agreed upon by AQD.	EUAIRSTRIPPER-1	SC V.1 – VI.3	**R 336.1702(a)**
2. VOC	0.003 tpy[2]	Based on a 12-month rolling time period as determined at the end of each calendar month.	EUAIRSTRIPPER-1	SC VI. 1 - VI.4	**R 336.1702(a)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. There shall be no visible emissions from the purge water treatment system using an air stripper.[2] **(R 336.1301(1)(c))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Upon request from the AQD, the permittee shall verify VOC emission rates from EUAIRSTRIPPER-1 by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the

AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall monitor and record the actual flow rate at least once each calendar week.[2] **(R 336.1702(a))**

2. The permittee shall monitor and record the total volatile organic compound concentrations of the influent and effluent streams of the air stripper at least once every six calendar months.[2] **(R 336.1702(a))**

3. The permittee shall calculate and record the volatile organic compound emission rate for each six month period using actual flow rate data and actual volatile organic compound concentration data.[2] **(R 336.1702(a))**

4. The permittee shall calculate, in a satisfactory manner, the mass VOC emission rate in tons on a monthly and 12-month rolling time period as determined at the end of each calendar month. **(R 336.1213(3))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVAIRSTRIPPER	3[2]	4[2]	**R 336.1201(3)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

D. FLEXIBLE GROUP SPECIAL CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGLANDFILL-OOO-1	This flexible group represents the general MSW landfill with a required collection and control system. This flexible group contains 40 CFR Part 62, Subpart OOO requirements.	EULANDFILL-1 EUACTIVECOLL-1 EUOPENFLARE-1 EUASBESTOS-1
FGLANDFILL-AAAA-1	This flexible group represents the general MSW landfill with a required collection and control system. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.	EULANDFILL-1 EUACTIVECOLL-1 EUOPENFLARE-1 EUASBESTOS-1
FGACTIVECOLL-OOO-1	This flexible group represents the active landfill gas collection system that uses gas mover equipment to draw landfill gas from the wells and moves the gas to the control equipment. This flexible group contains 40 CFR Part 62, Subpart OOO requirements.	EUACTIVECOLL-1
FGACTIVECOLL-AAAA-1	This flexible group represents the active landfill gas collection system that uses gas mover equipment to draw landfill gas from the wells and moves the gas to the control equipment. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.	EUACTIVECOLL-1
FGOPENFLARE-OOO-1	Open (non-enclosed) flare is an open combustor without enclosure or shroud. This flexible group contains 40 CFR Part 62, Subpart OOO requirements.	EUOPENFLARE-1
FGOPENFLARE-AAAA-1	Open (non-enclosed) flare is an open combustor without enclosure or shroud. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.	EUOPENFLARE-1
~~FGCOLDCLEANERS-1~~	~~Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.~~	~~EUCOLDCLEANERS-1~~

FGLANDFILL-OOO-1
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group represents the general MSW landfill with a required collection and control system. This flexible group contains 40 CFR Part 62, Subpart OOO requirements.

Emission Units: EULANDFILL-1, EUACTIVECOLL-1, EUOPENFLARE-1, EUASBESTOS-1

POLLUTION CONTROL EQUIPMENT

Landfill gas is routed to a treatment system and gas-to-energy plant. Any untreated landfill gas is routed to an on-site open flare (FGOPENFLARE-AAAA-1).

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee must install a collection and control system that captures the landfill gas generated within the landfill according to the requirements in 40 CFR 62.16714(b) and 40 CFR 62.16714(c). **(40 CFR 62.16714(a)(3))**

2. The permittee must route all the collected landfill gas to at least one of the following:

   a. A non-enclosed flare designed in accordance with 40 CFR 60.18 except as noted in 40 CFR 62.16722(d). **(40 CFR 62.16714(c)(1))**

   b. A control system designed and operated to reduce NMOC by 98 weight percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 ppmv on dry basis, as hexane at 3% oxygen. **(40 CFR 62.16714(c)(2))**

   c. To a treatment system that processes the collected gas for subsequent sale or beneficial use. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to either 40 CFR 62.16714(c)(1) or (2). **(40 CFR 62.16714(c)(3))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered 40 CFR 62.16714(e), the current amount of solid waste in place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. The permittee must keep all records on file in a format acceptable to the AQD District Supervisor and make them available upon request. **(R 336.1213(3), 40 CFR 62.16726(a))**

2. Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of "design capacity", must keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. **(40 CFR 62.16726(f))**

3. If reporting leachate or other liquids addition under 40 CFR 62.16724(l), the permittee must keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where leachate or liquids were applied. **(40 CFR 62.16726(j))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. If complying with the operational provisions of 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed in 40 CFR 62.16716, 40 CFR 62.16720, and 40 CFR 62.16722, the permittee must follow the semi-annual reporting requirements in 40 CFR 63.1981(h) in lieu of 40 CFR 62.16724(h). **(40 CFR 62.16724(h))**

5. The permittee must submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment. **(40 CFR 62.16724(g))**

   a. The equipment removal report must contain all of the following items:

      i. A copy of the closure report submitted in accordance with 40 CFR 62.16724(f). **(40 CFR 62.16724(g)(1)(i))**

      ii. Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 34 megagrams or greater of NMOC per year. **(40 CFR 62.16724(g)(1)(iii))**

      iii. A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired. **(40 CFR 62.16724(g)(1)(ii))**

   b. The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in 40 CFR 62.16714(f) have been met. **(40 CFR 62.16724(g)(2))**

6. The permittee must submit a closure report to the appropriate AQD District Office within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4). **(40 CFR 62.16724(f))**

7. The permittee must submit reports electronically according to the following:

   a. Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8), the permittee must submit the results of each performance test. For data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert), submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI). The CEDRI can be accessed through the USEPA's CDX (https://cdx.epa.gov/). Performance test data must be submitted in a file format generated through the use of the USEPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website, once the XML schema is available. **(40 CFR 62.16724(j)(1)(i))**

   b. For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website at the time of the test, submit the results of the performance test to the Administrator at the appropriate address listed in 40 CFR 60.4. **(40 CFR 62.16724(j)(1)(ii))**

   c. Each permittee must submit reports to the USEPA via CEDRI (CEDRI can be accessed through the USEPA's CDX). The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/chief). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the permittee must submit the report to the USEPA at the appropriate address listed in 40 CFR 60.4. Once the form has been available in CEDRI for 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. **(40 CFR 62.16724(j)(2))**

8. The permittee shall submit any performance test reports and all other reports required by 40 CFR Part 62, Subpart OOO to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENTS

1. If the permittee has submitted a design plan under 40 CFR 62.16724(d), the permittee must submit a revised design plan to the Administrator for approval as follows:

   a. At least 90 days before expanding operations to an area not covered by the previously approved design plan. **(40 CFR 62.16724(e)(1))**

   b. Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the Administrator under 40 CFR 62.16724(d). **(40 CFR 62.16724(e)(2))**

2. The collection and control system may be capped, removed, or decommissioned if the following criteria are met:

   a. The landfill is a closed landfill (as defined in 40 CFR 62.16730). A closure report must be submitted to the Administrator as provided in 40 CFR 62.16724(f). **(40 CFR 62.16714(f)(1))**

   b. The collection and control system must have been in operation a minimum of 15 years, or the landfill owner or operator demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flow. **(40 CFR 62.16714(f)(2))**

   c. Following the procedures specified in 40 CFR 62.16718(b), the calculated NMOC emission rate at the landfill is less than 34 Mg per year on three successive test dates. The test dates must be no less than 90 days apart, and no more than 180 days apart. **(40 CFR 62.16714(f)(3))**

3. The permittee must comply with all applicable provisions of the Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 as specified in 40 CFR Part 62, Subpart OOO. Each permittee must comply with the provisions for the operational standards in 40 CFR 63.1958 (as well as the provisions in 40 CFR 63.1960 and 40 CFR 63.1961), for an MSW landfill with a gas collection and control system used to comply with the provisions of 40 CFR 62.16714(b) and (c). Once the permittee begins to comply with the provisions of 40 CFR 63.1958, 40 CFR 63.1960 and 40 CFR 63.1961, the permittee must continue to operate the collection and control device according to those provisions and cannot return to the provisions of 40 CFR 62.16716, 40 CFR 62.16720 and 40 CFR 62.16722. **(40 CFR 62.16716, 40 CFR 62.16720, 40 CFR 62.16722, 40 CFR Part 62, Subpart OOO)**

FGLANDFILL-AAAA-1
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group represents the general MSW landfill with a required collection and control system. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.

Emission Units: EULANDFILL-1, EUACTIVECOLL-1, EUOPENFLARE-1, EUASBESTOS-1

POLLUTION CONTROL EQUIPMENT

Landfill gas is routed to a treatment system (FGTREATMENTSYS-AAAA-2) and gas-to-energy plant. Any untreated landfill gas is routed to an on-site open flare (FGOPENFLARE-AAAA-1).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Methane	Less than 500 ppm above background level	Calendar Quarter	Surface of Landfill	SC V.1 SC VI.1	**40 CFR 63.1958(d)(1)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.1955(c))**

2. During periods of startup, shutdown, and malfunction (SSM), the permittee must comply with the work practices specified in 40 CFR 63.1958(e)(1). **(40 CFR 63.1960(e)(2))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee must install a collection and control system that captures the landfill gas generated within the landfill according to the requirements in 40 CFR 63.1959(b)(2)(ii) and 40 CFR 63.1959(b)(2)(iii). **(40 CFR 63.1959(b)(2))**

2. The permittee must route all the collected landfill gas to at least one of the following:

   a. An open (non-enclosed) flare designed in accordance with 40 CFR 63.11(b) except as noted in 40 CFR 63.1959(e). **(40 CFR 63.1959(b)(2)(iii)(A))**

   b. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 ppmv on dry basis, as hexane at 3% oxygen. **(40 CFR 63.1959(b)(2)(iii)(B))**

c. A treatment system that processes the collected gas for subsequent sale or beneficial use. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to either 40 CFR 63.1959(b)(2)(iii)(A) or (B). **(40 CFR 63.1959(b)(2)(iii)(C))**

V. TESTING/SAMPLING

Records must be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis. **(40 CFR 63.1960(c)(1))**

2. The permittee must conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan must be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing. **(40 CFR 63.1958(d)(1))**

   a. The permittee must conduct testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 40 CFR 63.1960(d). **(40 CFR 63.1958(d)(2)(i), 40 CFR 63.1960(c)(1))**

   b. The background concentration must be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells. **(40 CFR 63.1960(c)(2))**

   c. Surface emission monitoring must be performed in accordance with 40 CFR Part 60, Appendix A-7, Method 21, Section 8.3.1, except that the probe inlet must be placed within 5 to 10 centimeters of the ground. Monitoring must be performed during typical meteorological conditions. **(40 CFR 63.1960(c)(3))**

   d. The permittee must conduct surface testing at all cover penetrations and monitor any cover penetrations that are within an area of the landfill where waste has been placed and a gas collection system is required. **(40 CFR 63.1958(d)(2)(ii))**

   e. The permittee must determine the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. **(40 CFR 63.1958(d)(2)(iii))**

3. The permittee must document any reading of 500 ppm or more above background at any location as a monitored exceedance. As long as the following specified actions are taken, the exceedance is not a violation of the operational requirements of 40 CFR 63.1958(d). **(40 CFR 63.1960(c)(4))**

   a. The location of each monitored exceedance must be marked, and the location recorded using an instrument with an accuracy of 4 meters with coordinates in decimal degrees and five decimal places. **(40 CFR 63.1960(c)(4)(i))**

   b. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance must be made and the location must be re-monitored within 10 calendar days of detecting the exceedance. **(40 CFR 63.1960(c)(4)(ii))**

   c. If the re-monitoring of the location shows a second exceedance, additional corrective action must be taken and the location must be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in SC V.3.e must be taken, and no further monitoring of that location is required until the action specified in SC V.3.e has been taken. **(40 CFR 63.1960(c)(4)(iii))**

   d. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in 40 CFR 63.1960(c)(4)(ii) or (iii) must be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less

than 500 ppm above backgrounds, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in SC V.3.c or SC V.3.e must be taken. **(40 CFR 63.1960(c)(4)(iv))**

e. For any location where monitored methane concentration equals or exceeds 500 ppm above backgrounds three times within a quarterly period, a new well or other collection device must be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Department for approval. **(40 CFR 63.1960(c)(4)(v))**

4. The permittee must comply with instrumentation specifications and procedures in 40 CFR 63.1960(d) for surface emission monitoring devices: **(40 CFR 63.1960(d))**

   a. The portable analyzer must meet the instrument specifications provided in 40 CFR Part 60, Appendix A-7, Method 21, except that "methane" must replace all references to VOC. **(40 CFR 63.1960(d)(1))**

   b. The calibration gas must be methane, diluted to a nominal concentration of 500 ppm in air. **(40 CFR 63.1960(d)(2))**

   c. To meet the performance evaluation requirements in 40 CFR Part 60, Appendix A-7, Method 21, the instrument evaluation procedures of 40 CFR Part 60, Appendix A-7, Method 21 must be used. **(40 CFR 63.1960(d)(3))**

   d. The calibration procedures provided in 40 CFR Part 60, Appendix A-7, Method 21 must be followed immediately before commencing a surface monitoring survey. **(40 CFR 63.1960(d)(4))**

5. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring. **(40 CFR 63.1961(f))**

VI. MONITORING/RECORDKEEPING

Records must be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must keep records of the surface methane monitoring including, at a minimum, the following information:

   a. The route traversed including any areas not monitored because of unsafe conditions (i.e., truck traffic, construction, active face, dangerous areas, etc.) and areas included where visual observations indicate elevated levels of landfill gas. **(40 CFR 63.1960(c)(1))**

   b. The location(s) and concentrations of the methane readings and noting any reading of 500 ppm or more above background. **(40 CFR 63.1960(c)(4))**

   c. The meteorological conditions the day of the testing including wind speed, wind direction, and temperature. **(R 336.1213(3))**

   The permittee must keep all records on file in a format acceptable to the AQD District Supervisor and make them available upon request. **(R 336.1213(3), 40 CFR 63.1960(c))**

2. The permittee must implement a program to monitor, on a monthly basis, for cover integrity and implement cover repairs as necessary. Records of the cover integrity and any cover repairs must be kept on file in a format acceptable to the AQD District Supervisor and made available upon request. **(R 336.1213(3), 40 CFR 63.1960(c)(5))**

3. The permittee must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered 40 CFR 63.1959(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. The permittee must keep all records on file in a format acceptable to the AQD District Supervisor and make them available upon request. **(R 336.1213(3), 40 CFR 63.1983(a))**

4. If adding liquids other than leachate in a controlled fashion to the waste mass and do not comply with the bioreactor requirements in 40 CFR 63.1947, 40 CFR 63.1955(b), and 40 CFR 63.1982(a) and (b), the permittee must keep records of calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40 percent. The calculation must consider the waste mass, moisture content of the incoming waste, mass of water added to the waste including leachate recirculation and other liquids addition and precipitation, and the mass of water removed through leachate or other water losses. Moisture level sampling or mass balances calculations can be used. The permittee must document the calculations and the basis of any assumptions. Keep the record of the calculations until the permittee ceases liquids addition. **(40 CFR 63.1982(c))**

See Appendix 7-1

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report must be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report must be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee must submit reports which must be postmarked or received by the appropriate AQD District Office by March 15 for reporting period January 1 to December 31. The reports must include the location of each exceedance of the 500 ppm methane concentrations as provided in 40 CFR 63.1958(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. The reports must also include information on all deviations that occurred during the 6-month reporting period. **(40 CFR 63.1961(f), 40 CFR 63.1981(h)(5))**

5. The permittee of a controlled landfill must submit an equipment removal report to the Department 30 days prior to removal or cessation of operation of the control equipment. **(40 CFR 63.1981(g))**

   a. The equipment removal report must contain all the following items:

      i. A copy of the closure report submitted in accordance with 40 CFR 63.1981(f). **(40 CFR 63.1981(g)(1)(i)**

      ii. A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, or information that demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the USEPA's Central Data Exchange (CDX). **(40 CFR 63.1981(g)(1)(ii))**

      iii. Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 Mg or greater of NMOC per year. If the NMOC emission rate reports have been previously submitted to the USEPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the USEPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports. **(40 CFR 63.1981(g)(1)(iii))**

   b. The Department may request such additional information as may be necessary to verify that all of the conditions for removal in 40 CFR 63.1957(b) have been met. **(40 CFR 63.1981(g)(2))**

6. The permittee of a controlled landfill must submit a closure report to the Department within 30 days of waste acceptance cessation. The Department may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Department, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 63.9(b). **(40 CFR 63.1981(f))**

7. The permittee must submit reports electronically according to the following:

   a. Within 60 days after the date of completing each performance test required, submit the results of the performance test with data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert). Submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the USEPA's CDX (https://cdx.epa.gov/). The data must be submitted in a file format generated through the use of the USEPA's ERT. Alternatively, submit an electronic file consistent with the extensible markup language (XML) schema listed on the USEPA's ERT website. **(40 CFR 63.1981(l)(1)(i)**

   b. For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website, the results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the USEPA's ERT website. Submit the ERT generated package or alternative file to the USEPA via CEDRI. **(40 CFR 63.1981(l)(1)(ii)**

   c. Each permittee must submit reports to the USEPA via CEDRI. CEDRI can be accessed through the USEPA's CDX. The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/chief). Once the spreadsheet template upload/forms for the reports have been available in CEDRI for 90 days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. The NMOC emission rate reports, and semiannual reports, should be electronically reported as a spreadsheet template upload/form to CEDRI. If the reporting forms specific to this subpart are not available in CEDRI at the time that the reports are due, the permittee must submit the reports to the USEPA at the appropriate address listed in 40 CFR 63.13. **(40 CFR 63.1981(l)(2))**

8. The permittee shall submit any performance test reports and all other reports required by 40 CFR Part 63, Subpart AAAA to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENTS

1. If the permittee has submitted a design plan under 40 CFR 63.1981(d), the permittee must submit a revised design plan to the Department for approval as follows:

   a. At least 90 days before expanding operations to an area not covered by the previously approved design plan. **(40 CFR 63.1981(e)(1))**

   b. Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted under 40 CFR 63.1981(d). **(40 CFR 63.1981(e)(2))**

2. The collection and control system may be capped, removed, or decommissioned if the following criteria are met:
   a. The landfill is a closed landfill (as defined in 40 CFR 63.1990). A closure report must be submitted to the Department as provided in 40 CFR 63.1981(f). **(40 CFR 63.1957(b)(1))**
   b. The gas collection and control system has been in operation a minimum of 15 years or the permittee demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flow. **(40 CFR 63.1957(b)(2))**
   c. Following the procedures specified in 40 CFR 63.1959(c), the calculated NMOC gas produced by the landfill must be less than 50 Mg/yr on three successive test dates. The test dates must be no less than 90 days apart, and no more than 180 days apart. **(40 CFR 63.1957(b)(3))**

3. The permittee must comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills as specified in 40 CFR Part 63, Subparts A and AAAA. **(40 CFR Part 63, Subparts A and AAAA)**

FGACTIVECOLL-OOO-1
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group represents the active landfill gas collection system that uses gas mover equipment to draw landfill gas from the wells and moves the gas to the control equipment. This flexible group contains 40 CFR Part 62, Subpart OOO requirements.

Emission Units: EUACTIVECOLL-1

POLLUTION CONTROL EQUIPMENT

Landfill gas is routed to a treatment system (FGTREATMENTSYS-AAAA-2) and gas-to-energy plant. Any untreated landfill gas is routed to an on-site open flare (FGOPENFLARE-AAAA-1).

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee must install an active collection system that meets the following requirements:
   a. Designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control system equipment. **(40 CFR 62.16714(b)(2)(i))**
   b. Collects gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active; or 2 years or more if closed or at final grade. **(40 CFR 62.16714(b)(2)(ii))**
   c. Collects gas at a sufficient extraction rate. **(40 CFR 62.16714(b)(2)(iii))**
   d. Designed to minimize off-site migration of subsurface gas. **(40 CFR 62.16714(b)(2)(iv))**

2. The permittee must route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-BTU gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to either 40 CFR 62.16714(c)(1) or (2). **(40 CFR 62.16714(c)(3))**

3. The permittee must site active gas collection devices as required in 40 CFR 62.16728 and must control all gas producing areas, except as provided below.
   a. Any segregated area of asbestos or non-degradable material may be excluded from collection if documented as provided under 40 CFR 62.16726(d). **(40 CFR 62.16728(a)(3)(i))**

b. Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material must be documented. A separate NMOC emissions estimate must be made for each section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section must be computed using the equation in Appendix 7-1. **(40 CFR 62.16728(a)(3)(ii))**

See Appendix 7-1

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Each permittee that chooses to comply with the provisions in 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed in 40 CFR 62.16716, 40 CFR 62.16720, and 40 CFR 62.16722, must keep records of the date upon which the permittee started complying with the provisions in 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961 and must keep records according to 40 CFR 63.1983(e)(1) through (5). **(40 CFR 62.16726(e))**

2. The permittee must keep up-to-date, readily accessible records for the life of the control equipment of the data where the permittee seeks to demonstrate compliance with 40 CFR 62.16714(b) listed as follows:

   a. The maximum expected gas generation flow rate as calculated in 40 CFR 62.16720(a)(1). **(40 CFR 62.16726(b)(1)(i))**

   b. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR 62.16728(a)(1). **(40 CFR 62.16726(b)(1)(ii))**

3. The permittee must keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector that matches the labeling on the plot map and the following up-to-date, readily accessible records. **(40 CFR 62.16726(d))**

   a. The installation date and location of all newly installed collectors as specified under 40 CFR 62.16720(b). **(40 CFR 62.16726(d)(1))**

   b. Documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in 40 CFR 62.16728(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in 40 CFR 62.16728(a)(3)(ii). **(40 CFR 62.16726(d)(2))**

4. The permittee must maintain the following information:

   a. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion. **(40 CFR 62.16724(i)(1))**

   b. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based. **(40 CFR 62.16724(i)(2))**

   c. The documentation of the presence of asbestos or non-degradable material for each area from which collection wells have been excluded based on the presence of asbestos or non-degradable material. **(40 CFR 62.16724(i)(3))**

   d. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area. **(40 CFR 62.16724(i)(4))**

e. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill. **(40 CFR 62.16724(i)(5))**

f. The provisions for the control of off-site migration. **(40 CFR 62.16724(i)(6))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. If complying with the operational provisions of 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed at 40 CFR 62.16716, 40 CFR 62.16720, and 40 CFR 62.16722, the permittee must follow the semi-annual reporting requirements in 40 CFR 63.1981(h) in lieu of 40 CFR 62.16724(h). **(40 CFR 62.16724(h))**

5. If complying with the operational provisions of 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed in 40 CFR 62.16716, 40 CFR 62.16720, and 40 CFR 62.16722, the permittee must follow the corrective action and the corresponding timeline reporting requirements in 40 CFR 63.1981(j) in lieu of 40 CFR 62.16724(k). **(40 CFR 62.16724(k))**

6. The permittee must submit reports electronically according to the following:

   a. Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8), the permittee must submit the results of each performance test. For data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert), submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI). The CEDRI can be accessed through the USEPA's CDX (https://cdx.epa.gov/). Performance test data must be submitted in a file format generated through the use of the USEPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website, once the XML schema is available. **(40 CFR 62.16724(j)(1)(i))**

   b. For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website at the time of the test, submit the results of the performance test to the USEPA at the appropriate address listed in 40 CFR 60.4. **(40 CFR 62.16724(j)(1)(ii))**

   c. Each permittee must submit reports to the USEPA via CEDRI (CEDRI can be accessed through the USEPA's CDX). The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/chief). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the permittee must submit the report to the USEPA at the appropriate address listed in 40 CFR 60.4. Once the form has been available in CEDRI for 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. **(40 CFR 62.16724(j)(2))**

7. The permittee shall submit any performance test reports and all other reports required by 40 CFR Part 62, Subpart OOO to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENTS

1. The permittee must comply with all applicable provisions of the Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 as specified in 40 CFR Part 62, Subpart OOO. Each permittee must comply with the provisions for the operational standards in 40 CFR 63.1958 (as well as the provisions in 40 CFR 63.1960 and 40 CFR 63.1961), for an MSW landfill with a gas collection and control system used to comply with the provisions of 40 CFR 62.16714(b) and (c). Once the permittee begins to comply with the provisions of 40 CFR 63.1958, 40 CFR 63.1960 and 40 CFR 63.1961, the permittee must continue to operate the collection and control device according to those provisions and cannot return to the provisions of 40 CFR 62.16716, 40 CFR 62.16720 and 40 CFR 62.16722. **(40 CFR 62.16716, 40 CFR 62.16720, 40 CFR 62.16722, 40 CFR Part 62, Subpart OOO)**

FGACTIVECOLL-AAAA-1
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group represents the active landfill gas collection system that uses gas mover equipment to draw landfill gas from the wells and moves the gas to the control equipment. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.

Emission Unit: EUACTIVECOLL-1

POLLUTION CONTROL EQUIPMENT

Landfill gas is routed to a treatment system (FGTREATMENTSYS-AAAA-2) and gas-to-energy plant. Any untreated landfill gas is routed to an on-site open flare (FGOPENFLARE-AAAA-1).

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee must operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:
   a. 5 years or more if active; or **(40 CFR 63.1958(a)(1))**
   b. 2 years or more if closed or at final grade. **(40 CFR 63.1958(a)(2))**

2. The permittee must operate the collection system with negative pressure at each wellhead except under the following conditions:
   a. A fire or increased well temperature. **(40 CFR 63.1958(b)(1))**
   b. Use of a geo-membrane or synthetic cover. The permittee must develop acceptable pressure limits in the design plan. **(40 CFR 63.1958(b)(2))**
   c. A decommissioned well. A well may experience a static positive pressure after shut-down to accommodate for declining flows. **(40 CFR 63.1958(b)(3))**

3. The permittee must operate each interior wellhead in the collection system under the following conditions:
   a. Operate each interior wellhead in the collection system with a landfill gas temperature less than 62.8°C (145°F). **(40 CFR 63.1958(c)(1))**
   b. A higher operating temperature value may be established at a particular well. A higher operating value demonstration must be submitted to the Department for approval and must include supporting data that the elevated parameter does not cause fires nor significantly inhibit anaerobic decomposition by killing methanogens. **(40 CFR 63.1958(c)(2))**

4. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.1955(c))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee must operate the system in accordance with 40 CFR 63.1955(c) such that all collected gases are vented to a control system designed and operated in compliance with 40 CFR 63.1959(b)(2)(iii). **(40 CFR 63.1958(e)(1))**
   a. In the event the collection or control system is not operating, the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within 1 hour of the collection or control system not operating. **(40 CFR 63.1958(e)(1)(i))**
   b. Efforts by the permittee to repair the collection or control system must be initiated and completed in a manner such that downtime is kept to a minimum, and the collection and control system must be returned to operation. **(40 CFR 63.1958(e)(1)(ii))**

2. The permittee must install an active collection system that meets the following requirements:
   a. Designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment. **(40 CFR 63.1959(b)(2)(ii)(B)(1))**
   b. Each well must be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of 5 years or more if active; or 2 years or more if closed or at final grade. **(40 CFR 63.1960(b), 40 CFR 63.1959(b)(2)(ii)(B)(2))**
   c. Collects gas at a sufficient extraction rate. **(40 CFR 63.1959(b)(2)(ii)(B)(3))**
   d. Designed to minimize off-site migration of subsurface gas. **(40 CFR 63.1959(b)(2)(ii)(B)(4))**

3. The permittee must install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead. **(40 CFR 63.1961(a))**

4. The permittee must demonstrate compliance with the operational standard for temperature in 40 CFR 63.1958(c)(1) by monitoring the temperature of the landfill gas on a monthly basis as provided in 40 CFR 63.1960(a)(4). The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of USEPA Method 2 of Appendix A-1 to Part 60 of this chapter. **(40 CFR 63.1961(a)(4))**

5. The permittee must site active gas collection devices as required in 40 CFR 63.1962 and must control all gas producing areas, except as provided below.
   a. Any segregated area of asbestos or non-degradable material may be excluded from collection if documented as provided under 40 CFR 63.1983(d). **(40 CFR 63.1962(a)(3)(i))**
   b. Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material must be documented. A separate NMOC emissions estimate must be made for each section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section must be computed using the equation in Appendix 7-1. **(40 CFR 63.1962(a)(3)(ii))**

See Appendix 7-1

V. TESTING/SAMPLING

Records must be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records must be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with 40 CFR 63.1959(b)(2)(ii)(B)(3), the permittee must measure, on a monthly basis, the gauge pressure in the gas collection header at each individual well as provided in 40 CFR 63.1960(a)(3) and 40 CFR 63.1961(a)(1). Any attempted corrective measure must not cause exceedances of other operational or performance standards.

   a. If positive pressure exists, action must be initiated to correct the exceedance within five calendar days. **(40 CFR 63.1960(a)(3)(i))**

   b. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement of positive pressure, the permittee must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after positive pressure was first measured. **(40 CFR 63.1960(a)(3)(i)(A))**

   c. If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the permittee must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the positive pressure measurement. **(40 CFR 63.1960(a)(3)(i)(B))**

   d. If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the permittee must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Department as soon as practicable but no later than 75 days after the first measurement of positive pressure or above, according to 40 CFR 63.1981(j). **(40 CFR 63.1960(a)(3)(i)(C))**

2. The permittee must monitor each well monthly for temperature for the purpose of identifying whether excess air infiltration exists as provided in 40 CFR 63.1958(c)(1) and 40 CFR 63.1961(a)(4). If a well exceeds the operating parameter for temperature, the following corrective actions must be taken:

   a. Action must be initiated to correct the exceedance within 5 calendar days. Any attempted corrective measure must not cause exceedances of other operational or performance standards. **(40 CFR 63.1960(a)(4)(i))**

   b. If a landfill gas temperature less than 62.8°C (145°F) cannot be achieved within 15 calendar days of the first measurement of landfill gas temperature greater than 62.8°C (145°F), the permittee must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after a landfill gas temperature greater than 62.8°C (145°F) was first measured. **(40 CFR 63.1960(a)(4)(i)(A))**

   c. If corrective actions cannot be fully implemented within 60 days following the temperature measurement for which the root cause analysis was required, the permittee must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 62.8°C (145°F). **(40 CFR 63.1960(a)(4)(i)(B))**

   d. If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the permittee must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Department as soon as practicable but no later than 75 days after the first measurement of temperature monitoring value of 62.8°C (145°F) or above, according to 40 CFR 63.1981(h)(7) and 40 CFR 63.1981(j). **(40 CFR 63.1960(a)(4)(i)(C))**

   e. If a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7°C (170°F) and the carbon monoxide concentration measured according to the procedures in 40 CFR 63.1961(a)(5)(vi) is greater than or equal to 1,000 ppmv, the corrective action(s) for the wellhead temperature standard 62.8°C (145°F) must be completed within 15 days. **(40 CFR 63.1960(a)(4)(i)(D))**

3. The permittee must monitor, on a monthly basis, the nitrogen or oxygen concentration in the landfill gas using the procedures in 40 CFR 63.1961(a)(2)(i) or (ii). **(40 CFR 63.1961(a)(2))**

4. Unless a higher operating temperature value has been approved by the Department under this subpart or under 40 CFR Part 60, Subpart WWW; 40 CFR Part 60, Subpart XXX; or a federal plan or USEPA-approved and effective state plan that implements either 40 CFR Part 60, Subpart Cc or 40 CFR Part 60, Subpart Cf, the permittee must initiate enhanced monitoring at each well with a landfill gas temperature greater than 62.8°C (145°F) as follows:

   a. Visual observations for subsurface oxidation events (smoke, smoldering ash, damage to well) within the radius of influence of the well. **(40 CFR 63.1961(a)(5)(i))**

   b. Monitor the oxygen concentration as provided in SC VI.3. **(40 CFR 63.1961(a)(5)(ii))**

   c. Monitor the temperature of the landfill gas at the wellhead as provided in SC VI.2. **(40 CFR 63.1961(a)(5)(iii))**

   d. Monitor the landfill gas every 10 vertical feet of the well as provided in SC VI.5. **(40 CFR 63.1961(a)(5)(iv))**

   e. Monitor the methane concentration with a methane meter using USEPA Method 3C of Appendix A-6 to 40 CFR Part 60, USEPA Method 18 of Appendix A-6 to 40 CFR Part 60, or a portable gas composition analyzer to monitor the methane levels provided that the analyzer is calibrated, and the analyzer meets all quality assurance and quality control requirements for USEPA Method 3C or USEPA Method 18. **(40 CFR 63.1961(a)(5)(v))**

   f. Monitor the carbon monoxide concentrations as follows:

      i. Collect the sample from the wellhead sampling port in a passivated canister or multi-layer foil gas sampling bag (such as the Cali-5-Bond Bag) and analyze that sample using an approved USEPA Method listed in 40 CFR 60, Appendix A, or an equivalent method with a detection limit of at least 100 ppmv of carbon monoxide in high concentrations of methane; or. **(40 CFR 63.1961(a)(5)(vi)(A))**

      ii. Collect and analyze the sample from the wellhead using an approved USEPA Method listed in 40 CFR 60, Appendix A to measure carbon monoxide concentrations. **(40 CFR 63.1961(a)(5)(vi)(B))**

      iii. When sampling directly from the wellhead, sample for 5 minutes plus twice the response time of the analyzer. These values must be recorded. The five 1-minute averages are then averaged to give you the carbon monoxide reading at the wellhead. **(40 CFR 63.1961(a)(5)(vi)(C))**

      iv. When collecting samples in a passivated canister or multi-layer foil sampling bag, sample for the period of time needed to assure that enough sample is collected to provide five (5) consecutive, 1-minute samples during the analysis of the canister or bag contents, but no less than 5 minutes plus twice the response time of the analyzer. The five (5) consecutive, 1-minute averages are then averaged together to give a carbon monoxide value from the wellhead. **(40 CFR 63.1961(a)(5)(vi)(D))**

   g. The enhanced monitoring specified in SC VI.4 must begin seven calendar days after the first measurement of landfill gas temperature greater than 62.8°C (145°F). **(40 CFR 63.1961(a)(5)(vii))**

   h. The enhanced monitoring must be conducted on a weekly basis. If four consecutive weekly carbon monoxide readings are under 100 ppmv, then enhanced monitoring may be decreased to monthly. However, if carbon monoxide readings exceed 100 ppmv again, the landfill must return to weekly monitoring. **(40 CFR 63.1961(a)(5)(viii))**

   i. The enhanced monitoring specified in SC VI.4 can be stopped once a higher operating value is approved, at which time the monitoring provisions issued with the higher operating value should be followed, or once the measurement of landfill gas temperature at the wellhead is less than or equal to 62.8°C (145°F). **(40 CFR 63.1961(a)(5)(ix))**

5. For each wellhead with a measurement of landfill gas temperature greater than or equal to 73.9°C (165°F), the permittee shall annually monitor temperature of the landfill gas every 10 vertical feet of the well. This temperature can be monitored either with a removable thermometer or using temporary or permanent thermocouples installed in the well. **(40 CFR 63.1961(a)(6))**

6. The permittee must keep, on a monthly basis, readily accessible records of the following:
   a. All collection and control system exceedances of the operational standards in 40 CFR 63.1958, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance. **(40 CFR 63.1983(e)(1))**
   b. The records of each wellhead temperature monitoring value of 62.8°C (145°F) or above. **(40 CFR 63.1983(e)(2)(i))**
   c. Each permittee required to conduct the enhanced monitoring provisions in 40 CFR 63.1961(a)(5), must also keep records of all enhanced monitoring activities. **(40 CFR 63.1983(e)(2)(ii))**
   d. The permittee must also keep a record of the email transmission when required to submit the 24-hour high temperature report in 40 CFR 63.1981(k). **(40 CFR 63.1983(e)(2)(iii))**
   e. For any root cause analysis for which corrective actions are required in 40 CFR 63.1960(a)(3)(i)(A) or (a)(4)(i)(A), keep a record of the root cause analysis conducted, including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed. **(40 CFR 63.1983(e)(3))**
   f. For any root cause analysis for which corrective actions are required in 40 CFR 63.1960(a)(3)(i)(B) or (a)(4)(i)(B), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates. **(40 CFR 63.1983(e)(4))**
   g. For any root cause analysis for which corrective actions are required in 40 CFR 63.1960(a)(3)(i)(C) or (a)(4)(i)(C), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the Department. **(40 CFR 63.1983(e)(5))**

7. The permittee must keep up-to-date, readily accessible records for the life of the control equipment of the data listed as follows:
   a. The maximum expected gas generation flow rate as calculated in 40 CFR 63.1960(a)(1). **(40 CFR 63.1983(b)(1)(i))**
   b. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR 63.1962(a)(1) and (2). **(40 CFR 63.1983(b)(1)(ii))**

8. The permittee must record the date, time, and duration of each startup and/or shutdown periods when the affected source was subject to the standard applicable to startup and shutdown. **(40 CFR 63.1983(c)(6))**

9. Where the permittee seeks to demonstrate compliance with the operational standard in 40 CFR 63.1958(e)(1), in the event that an affected unit fails to meet an applicable standard, the permittee shall record the following information:
   a. The date, time, and duration of each failure and the cause of the events (including unknown cause, if applicable). **(40 CFR 63.1983(c)(7)(i))**
   b. For each failure to meet an applicable standard; record and retain a list of the affected sources or equipment. **(40 CFR 63.1983(c)(7)(ii))**
   c. Record actions taken to minimize emissions in accordance with the general duty of 40 CFR 63.1955(c) and any corrective actions taken to return the affected unit to its normal or usual manner of operation. **(40 CFR 63.1983(c)(7)(iii))**

10. The permittee must keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector; and the installation date and location of all newly installed collectors as specified under 40 CFR 63.1960(b). **(40 CFR 63.1983(d), 40 CFR 63.1983(d)(1))**

11. The permittee must maintain the following information:

    a. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion. **(40 CFR 63.1981(i)(1))**

    b. The documentation of the presence of asbestos or non-degradable material for each area from which collection wells have been excluded based on the presence of asbestos or non-degradable material. **(40 CFR 63.1981(i)(3))**

    c. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area. **(40 CFR 63.1981(i)(4))**

    d. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill. **(40 CFR 63.1981(i)(5))**

    e. The provisions for the control of off-site migration. **(40 CFR 63.1981(i)(6))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report must be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee using an active collection system designed in accordance with 40 CFR 63.1959(b)(2)(ii) must submit to the Department semiannual reports. The semiannual reports must include the following information:

    a. Number of times the applicable parameters monitored under 40 CFR 63.1958(b), (c) and (d) were exceeded and when the gas collection and control system was not operating under 40 CFR 63.1958(e), including periods of SSM. For each instance, report the date, time, and duration of each exceedance. **(40 CFR 63.1981(h)(1))**

    b. Where the permittee seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph 40 CFR 63.1958(c), provide a statement of the wellhead operational standard for temperature and oxygen for the period covered by the report. Indicate the number of times each of those parameters monitored under 40 CFR 63.1961(a)(3) were exceeded. For each instance, report the date, time, and duration of each exceedance. **(40 CFR 63.1981(h)(1)(i))**

    c. Where the permittee seeks to demonstrate compliance with the operational standard for temperature in 40 CFR 63.1958(c)(1), provide a statement of the wellhead operational standard for temperature and oxygen for the period covered by the report. Indicate the number of times each of those parameters monitored under 40 CFR 63.1961(a)(4) were exceeded. For each instance, report the date, time, and duration of each exceedance. **(40 CFR 63.1981(h)(1)(ii))**

    d. The date of installation and the location of each well or collection system expansion added pursuant to 40 CFR 63.1960(a)(3) and (a)(4), (b), and (c)(4). **(40 CFR 63.1981(h)(6))**

e. The permittee must record instances when a positive pressure occurs in efforts to avoid fire. **(40 CFR 63.1958(b)(1))**

f. Include any corrective action analysis for which corrective actions are required in 40 CFR 63.1960(a)(3)(i) or (a)(5) and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates. **(40 CFR 63.1981(h)(7))**

g. Each permittee required to conduct enhanced monitoring in 40 CFR 63.1961(a)(5) and (6) must include the results of all monitoring activities conducted during the period; **(40 CFR 63.1981(h)(8)**

i. For each monitoring point, report the date, time, and well identifier along with the value and units of measure for oxygen, temperature (wellhead and downwell), methane, and carbon monoxide. **(40 CFR 63.1981(h)(8)(i))**

ii. Include a summary trend analysis for each well subject to the enhanced monitoring requirements to chart the weekly readings over time for oxygen, wellhead temperature, methane, and weekly or monthly readings over time, as applicable for carbon monoxide. **(40 CFR 63.1981(h)(8)(ii))**

iii. Include the date, time, staff person name, and description of findings for each visual observation for subsurface oxidation event. **(40 CFR 63.1981(h)(8)(iii))**

5. The permittee must submit information regarding corrective actions as follows:

a. For corrective action that is required according to 40 CFR 63.1960(a)(3) or (a)(4) and is not completed within 60 days after the initial exceedance, submit a notification to the Department as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance. **(40 CFR 63.1981(j)(1))**

b. For corrective action that is required according to 40 CFR 63.1960(a)(3) or (4) and is expected to take longer than 120 days after the initial exceedance to complete, submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Department as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 62.8°C (145°F) or above. The Department must approve the plan for corrective action and the corresponding timeline. **(40 CFR 63.1981(j)(2))**

6. Where the permittee seeks to demonstrate compliance with the operational standard for temperature in 40 CFR 63.1958(c)(1) and a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7ºC (170ºF) and the carbon monoxide concentration measured is greater than or equal to 1,000 ppmv, report the date, time, well identifier, temperature and carbon monoxide reading via email to the Department within 24 hours of the measurement unless a higher operating temperature value has been approved by the Department for the well under this subpart or under 40 CFR Part 60, Subpart WWW; 40 CFR Part 60, Subpart XXX; or a Federal plan or USEPA approved and effective state plan that implements either 40 CFR Part 60, Subpart Cc or 40 CFR Part 60, Subpart Cf. **(40 CFR 63.1981(k))**

7. The permittee must submit reports electronically according to the following:

a. Within 60 days after the date of completing each performance test required, submit the results of the performance test with data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert). Submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the USEPA's CDX (https://cdx.epa.gov/). The data must be submitted in a file format generated through the use of the USEPA's ERT. Alternatively, submit an electronic file consistent with the extensible markup language (XML) schema listed on the USEPA's ERT website. **(40 CFR 63.1981(l)(1)(i)**

b. For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website, the results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the USEPA's ERT website. Submit the ERT generated package or alternative file to the USEPA via CEDRI. **(40 CFR 63.1981(l)(1)(ii)**

c. Each permittee must submit reports to the USEPA via CEDRI. CEDRI can be accessed through the USEPA's CDX. The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/chief). Once the spreadsheet template upload/forms for the reports have been available in CEDRI for 90 days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. The semiannual reports should be electronically reported as a spreadsheet template upload/form to CEDRI. If the reporting forms specific to this subpart are not available in CEDRI at the time that the reports are due, the permittee must submit the reports to the USEPA at the appropriate address listed in 40 CFR 63.13. **(40 CFR 63.1981(l)(2))**

8. The permittee shall submit all monitoring activities and all other reports required by 40 CFR Part 63, Subpart AAAA to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENTS

1. Each permittee seeking to demonstrate compliance with 40 CFR 63.1959(b)(2)(ii)(B)(4) through the use of a collection system not conforming to the specifications provided in 40 CFR 63.1962 must provide information satisfactory to the Department as specified in 40 CFR 63.1981(c)(3) demonstrating that off-site migration is being controlled. **(40 CFR 63.1960(a)(5))**

2. Each permittee seeking to install a collection system that does not meet the specifications in 40 CFR 63.1962 or is seeking to monitor alternative parameters to those required by 40 CFR 63.1958 through 40 CFR 63.1961 must provide information satisfactory to the Department as provided in 40 CFR 63.1981(d)(2) and (3) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Department may specify additional appropriate monitoring procedures. **(40 CFR 63.1961(e))**

3. The permittee must comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills as specified in 40 CFR Part 63, Subparts A and AAAA. **(40 CFR Part 63, Subparts A and AAAA)**

FGOPENFLARE-OOO-1
FLEXIBLE GROUPCONDITIONS

DESCRIPTION

Open (non-enclosed) flare is an open combustor without enclosure or shroud. This flexible group contains 40 CFR Part 62, Subpart OOO requirements.

Emission Unit: EUOPENFLARE-1

POLLUTION CONTROL EQUIPMENT

Open (non-enclosed) flare

I. EMISSION LIMIT(S)

1. There must be no visible emissions from EUOPENFLARE-1 except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. **(40 CFR 60.18(c)(1))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate the flare in accordance with 40 CFR 60.18. **(40 CFR 62.16714(c)(1))**

2. The flare must be operated with a flame present at all times. **(40 CFR 60.18(c)(2))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must verify visible emissions from EUOPENFLARE-1, by testing at owner's expense, in accordance with Department requirements. Testing must be performed using an approved USEPA Method 22 listed in 40 CFR Part 60, Appendix A. No less than 30 days prior to testing, the permittee must submit a complete test plan to the AQD Technical Programs Unit and the appropriate District Office. The AQD must approve the final plan prior to testing. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and the appropriate District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, 40 CFR 60.18(f))**

2. The permittee must verify the following:

   a. The net heating value of the gas being combusted in the flare must be calculated and recorded using the equation provided in Appendix 7-1. **(40 CFR 60.18(f)(3))**

   b. The exit velocity for steam-assisted, air-assisted, or non-assisted flares as determined by the methods provided in Appendix 7-1. **(40 CFR 60.18(f)(5) and (6))**

3. Every five years from the date of the last test, the permittee must verify visible emissions, the net heating value, and exit velocity~~Within 180 days of permit issuance, the permittee must verify visible emissions, the net heating value, and exit velocity~~ from EUOPENFLARE-1 and at a minimum, every five years from the date of the last test, thereafter. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, 40 CFR 60.18(f))**

4. The permittee must notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. **(R 336.1213(3))**

See Appendix 7-1

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must keep up-to-date, readily accessible records for the life of the control equipment of the data as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal. **(40 CFR 62.16726(b))**

2. Where the permittee seeks to demonstrate compliance with 40 CFR 62.16714(c)(1) through use of a non-enclosed flare, the flare type (*i.e.,* steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; and continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent. **(40 CFR 62.16726(b)(4))**

3. The following records for the flare must be maintained onsite:

   a. The net heating value of the gas being combusted in the flare must be calculated and recorded using the equation provided in Appendix 7-1. **(40 CFR 60.18(f)(3))**

   b. The exit velocity for steam-assisted, air-assisted, or non-assisted flares as determined by the methods specified in 40 CFR 60.18(f)(4) provided in Appendix 7-1. **(40 CFR 60.18(f)(4))**

4. Each permittee that chooses to comply with the provisions in 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed in 40 CFR 62.16716, 40 CFR 62.16720, and 40 CFR 62.16722, must keep records of the date upon which the permittee started complying with the provisions in 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961. **(40 CFR 62.16726(e))**

See Appendix 7-1

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. If complying with the operational provisions of 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed at 40 CFR 62.16716, 40 CFR 62.16720, and 40 CFR 62.16722, the permittee must follow the semi-annual reporting requirements in 40 CFR 63.1981(h) in lieu of 40 CFR 62.16724(h). **(40 CFR 62.16724(h))**

5. The permittee must submit reports electronically according to the following:

   a. Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8), the permittee must submit the results of each performance test. For data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert), submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI). The CEDRI can be accessed through the USEPA's CDX (https://cdx.epa.gov/). Performance test data must be submitted in a file format generated through the use of the USEPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website, once the XML schema is available. **(40 CFR 62.16724(j)(1)(i))**

   b. For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website at the time of the test, submit the results of the performance test to the USEPA at the appropriate address listed in 40 CFR 60.4. **(40 CFR 62.16724(j)(1)(ii))**

   c. Each permittee must submit reports to the USEPA via CEDRI (CEDRI can be accessed through the USEPA's CDX). The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/chief). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the permittee must submit the report to the USEPA at the appropriate address listed in 40 CFR 60.4. Once the form has been available in CEDRI for 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. **(40 CFR 62.16724(j)(2))**

6. The permittee shall submit any performance test reports and all other reports required by 40 CFR Part 62, Subpart OOO to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must comply with all applicable provisions of the Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction on or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 as specified in 40 CFR Part 62, Subpart OOO. Each permittee must comply with the provisions for the operational standards in 40 CFR 63.1958 (as well as the provisions in 40 CFR 63.1960 and 40 CFR 63.1961), for an MSW landfill with a gas collection and control system used to comply with the provisions of 40 CFR 62.16714(b) and (c). Once the permittee begins to comply with the provisions of 40 CFR 63.1958, 40 CFR 63.1960 and 40 CFR 63.1961, the permittee must continue to operate the collection and control device according to those provisions and cannot return to the provisions of 40 CFR 62.16716, 40 CFR 62.16720 and 40 CFR 62.16722. **(40 CFR 62.16716, 40 CFR 62.16720, 40 CFR 62.16722, 40 CFR Part 62, Subpart OOO)**

FGOPENFLARE-AAAA-1
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Open (non-enclosed) flare is an open combustor without enclosure or shroud. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.

Emission Unit: EUOPENFLARE-1

POLLUTION CONTROL EQUIPMENT

Open (non-enclosed) flare

I. EMISSION LIMIT(S)

1. There must be no visible emissions from EUOPENFLARE-1 except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. **(40 CFR 63.11(b)(4))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate EUOPENFLARE-1 at all times when the collected gas is routed to it. **(40 CFR 63.11(b)(3), 40 CFR 63.1958(f))**

2. The flare must be operated with a flame present at all times. **(40 CFR 63.11(b)(5))**

3. In the event the control system is inoperable, the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within one hour. **(40 CFR 63.1958(e)(1)(i))**

4. In the event the control system is inoperable, efforts to repair the collection system must be initiated and completed in a manner such that downtime is kept to a minimum, and the collection and control system must be returned to operation. **(40 CFR 63.1958(e)(1)(ii))**

5. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.1955(c))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee must design and operate EUOPENFLARE-1 in accordance with the parameters established in 40 CFR 63.11(b). **(40 CFR 63.1959(b)(2)(iii)(A))**

2. The permittee must install, calibrate, maintain, and operate according to the manufacturer's specifications, a heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame. **(40 CFR 63.11(b)(5), 40 CFR 63.1961(c)(1))**

3. The permittee must install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that records flow to or bypass of the flare (if applicable) at least every 15 minutes. **(40 CFR 63.1961(c)(2))**

V. TESTING/SAMPLING

Records must be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must verify visible emissions from EUOPENFLARE-1, by testing at owner's expense, in accordance with Department requirements. Testing must be performed using approved USEPA Method 22 listed in 40 CFR 60, Appendix A. No less than 30 days prior to testing, the permittee must submit a complete test plan to the AQD District Office. The AQD must approve the final plan prior to testing. The permittee must submit a complete report of the test results to the AQD District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, 40 CFR 63.11(b)(4))**

2. The permittee must verify the following:

   a. The net heating value of the gas being combusted in the flare must be calculated and recorded using the equation provided in Appendix 7-1. **(40 CFR 63.11(b)(6))**

   b. The exit velocity for steam-assisted, air-assisted, or non-assisted flares as determined by the methods provided in Appendix 7-1. **(40 CFR 63.11(b)(7) and (8))**

3. The permittee must verify visible emissions, the net heating value, and exit velocity from EUOPENFLARE-1 at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

4. The permittee must notify the AQD District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. **(R 336.1213(3))**

See Appendix 7-1

VI. MONITORING/RECORDKEEPING

Records must be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must maintain records regarding the flare type (i.e., steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 63.11. **(40 CFR 63.1983(b)(4))**

2. The permittee must keep monthly records of the operating parameters specified to be monitored in 40 CFR 63.1961(c). The records must include:

   a. Continuous records of the indication of flow and gas flow rate to the control device. **(40 CFR 63.1983(b)(4))**

   b. The indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines. **(40 CFR 63.1961(c)(2)(ii))**

   c. Continuous records of the open flare pilot flame or open flare flame monitoring, and records of all periods of operations during which the pilot flame of the flare flame is absent. **(40 CFR 63.1983(b)(4))**

See Appendix 7-1

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report must be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report must be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee must submit to the appropriate AQD District Office semiannual reports for the control system. Reports must be received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. For flares, reportable exceedances are defined under 40 CFR 63.1961(c). The reports must include the following:

   a. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow. **(40 CFR 63.1981(h)(2))**

   b. Description and duration of all periods when the control device was not operating and length of time the control device was not operating. **(40 CFR 63.1981(h)(3))**

5. The permittee must submit reports electronically according to the following:

   a. Within 60 days after the date of completing each performance test required, submit the results of the performance test with data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert). Submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the USEPA's CDX (https://cdx.epa.gov/). The data must be submitted in a file format generated through the use of the USEPA's ERT. Alternatively, submit an electronic file consistent with the extensible markup language (XML) schema listed on the USEPA's ERT website. **(40 CFR 63.1981(l)(1)(i)**

   b. For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website, the results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the USEPA's ERT website. Submit the ERT generated package or alternative file to the USEPA via CEDRI. **(40 CFR 63.1981(l)(1)(ii)**

   c. Each permittee must submit reports to the USEPA via CEDRI. CEDRI can be accessed through the USEPA's CDX. The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/chief). Once the spreadsheet template upload/forms for the reports have been available in CEDRI for 90 days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. The semiannual reports should be electronically reported as a spreadsheet template upload/form to CEDRI. If the reporting forms specific to this subpart are not available in CEDRI at the time that the reports are due, the permittee must submit the reports to the USEPA at the appropriate address listed in 40 CFR 63.13. **(40 CFR 63.1981(l)(2))**

6. The permittee shall submit any performance test reports and all other reports required by 40 CFR Part 63, Subpart AAAA to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills as specified in 40 CFR Part 63, Subparts A and AAAA. **(40 CFR Part 63, Subparts A and AAAA)**

FGCOLDCLEANERS-1
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

Emission Unit: EUCOLDCLEANERS-1

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

The permittee shall not use cleaning solvents containing more than five percent by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof. **(R 336.1213(2))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. **(R 336.1611(2)(b), R 336.1707(3)(b))**

2. The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. **(R 336.1213(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The cold cleaner must meet one of the following design requirements:

   a. The air/vapor interface of the cold cleaner is no more than ten square feet. **(R 336.1281(2)(h))**

   b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. **(R 336.1285(2)(r)(iv))**

2. The cold cleaner shall be equipped with a device for draining cleaned parts. **(R 336.1611(2)(b), R 336.1707(3)(b))**

3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. **(R 336.1611(2)(a), R 336.1707(3)(a))**

4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. **(R 336.1707(3)(a))**

5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:

a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. **(R 336.1707(2)(a))**

b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. **(R 336.1707(2)(b))**

c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. **(R 336.1707(2)(c))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. For each new cold cleaner in which the solvent is heated, the solvent temperature shall be monitored and recorded at least once each calendar week during routine operating conditions. **(R 336.1213(3))**

2. The permittee shall maintain the following information on file for each cold cleaner: **(R 336.1213(3))**

   a. A serial number, model number, or other unique identifier for each cold cleaner.

   b. The date the unit was installed, manufactured or that it commenced operation.

   c. The air/vapor interface area for any unit claimed to be exempt under Rule 281(2)(h).

   d. The applicable Rule 201 exemption.

   e. The Reid vapor pressure of each solvent used.

   f. If applicable, the option chosen to comply with Rule 707(2).

3. The permittee shall maintain written operating procedures for each cold cleaner. These written procedures shall be posted in an accessible, conspicuous location near each cold cleaner. **(R 336.1611(3), R 336.1707(4))**

4. As noted in Rule 611(2)(c) and Rule 707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in non-closed containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20 percent, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis. **(R 336.1213(3), R 336.1611(2)(c), R 336.1707(3)(c))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

~~VIII. STACK/VENT RESTRICTION(S)~~

~~NA~~

~~IX. OTHER REQUIREMENT(S)~~

~~NA~~

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

APPENDICES

Appendix 1-1. Acronyms and Abbreviations

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO_2e	Carbon Dioxide Equivalent
CEMS	Continuous Emission Monitoring System	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
Department/ department	Michigan Department of Environment, Great Lakes, and Energy	gr	Grains
		HAP	Hazardous Air Pollutant
EGLE	Michigan Department of Environment, Great Lakes, and Energy	Hg	Mercury
		hr	Hour
EU	Emission Unit	HP	Horsepower
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallons of Applied Coating Solids	kW	Kilowatt
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	m	Meter
HVLP	High Volume Low Pressure*	mg	Milligram
ID	Identification	mm	Millimeter
IRSL	Initial Risk Screening Level	MM	Million
ITSL	Initial Threshold Screening Level	MW	Megawatts
LAER	Lowest Achievable Emission Rate	NMOC	Non-methane Organic Compounds
MACT	Maximum Achievable Control Technology	NO_x	Oxides of Nitrogen
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	Particulate Matter equal to or less than 10 microns in diameter
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pounds per hour
		ppm	Parts per million
NSPS	New Source Performance Standards	ppmv	Parts per million by volume
NSR	New Source Review	ppmw	Parts per million by weight
PS	Performance Specification	%	Percent
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonable Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO_2	Sulfur Dioxide
SC	Special Condition	TAC	Toxic Air Contaminant
SCR	Selective Catalytic Reduction	Temp	Temperature
SNCR	Selective Non-Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TEQ	Toxicity Equivalence Quotient	µg	Microgram
USEPA/EPA	United States Environmental Protection Agency	µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
VE	Visible Emissions	yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

Appendix 2-1. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. **(R 336.1213(4)(a), R 336.1119(a)(ii))**

Appendix 3-1. Monitoring Requirements

Specific monitoring requirement procedures, methods or specifications are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 4-1. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 5-1. Testing Procedures

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 6-1. Permits to Install

The following table lists any PTIs issued, or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-N2369-2020. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-N2369-2020 is being reissued as Source-Wide PTI No. MI-PTI-N2369-2020b.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	NA	NA	NA

Appendix 7-1. Emission Calculations

A. The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced for EUACTIVECOLL-1 and EUOPENFLARE-1.

Calculation used to determine NMOC emissions from any nonproductive area

The following shall be used to determine if any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than one percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material must be documented and provided to the Administrator upon request. A separate NMOC emissions estimate must be made for each section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section must be computed using the following equation: **(40 CFR 62.16728(a)(3)(ii)(A))**

$Q_i = 2\ k\ L_o\ M_i\ (e^{-kti})\ (C_{NMOC})\ (3.6 \times 10^{-9})$

Where:

Q_i = NMOC emission rate from the ith section, Mg per year

k = methane generation rate constant, $year^{-1}$

L_o = methane generation potential, cubic meters per Mg solid waste

M_i = mass of the degradable solid waste in the ith section, Mg

t_i = age of the solid waste in the ith section, years

C_{NMOC} = concentration of non-methane organic compounds, ppm by volume

3.6×10^{-9} = conversion factor

The values for k and C_{NMOC} determined in field testing must be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (this distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, L_o and C_{NMOC} provided in 40 CFR 62.16718 or the alternative values from 40 CFR 62.16718 must be used. The mass of non-degradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the non-degradable material is documented as provided in 40 CFR 62.16728(a)(3)(iii).

Net Heating Value of the gas being combusted in the flare:

The net heating value of the gas being combusted in the flare shall be calculated and recorded using the equation provided in 40 CFR 60.18(f)(3). **(40 CFR 60.18(f)(3))**

$$H_T = K \sum_{i=1}^{n} C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20°C;

$$K = \text{Constant, } 1.740 \times 10^{-7} \left(\frac{1}{ppm}\right) \left(\frac{g\ mole}{scm}\right) \left(\frac{MJ}{kcal}\right)$$

where the standard temperature for $\left(\frac{g\ mole}{scm}\right)$ is 20°C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946–77 or 90 (Reapproved 1994) (Incorporated by reference as specified in 40 CFR 60.17); and

H_i = Net heat of combustion of sample component i, kcal/g mole at 25°C and 760 mmHg. The heats of combustion may be determined using ASTM D2382–76 or 88 or D4809–95 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated.

Calculation for Vmax steam-assisted and non-assisted flares

The maximum permitted velocity, Vmax, for flares complying with 40 CFR 60.18(c)(4)(iii) shall be calculated and recorded using the equation provided in 40 CFR 60.18(f)(5). **(40 CFR 60.18(f)(5))**

$\text{Log}_{10}(V_{max}) = (H_T + 28.8)/31.7$

Where:

Vmax = Maximum permitted velocity, M/sec

28.8 = Constant
31.7 = Constant
H_T = The net heating value as determined in 60.18(f)(3).

Calculation for Vmax for air-assisted flares

The maximum permitted velocity, Vmax, for air-assisted flares shall be calculated and recorded using the equation provided in 40 CFR 60.18(f)(6). **(40 CFR 60.18(f)(6))**

$V_{max} = 8.706 + 0.7084 (H_T)$

Where:

Vmax = Maximum permitted velocity, m/sec
8.706 = Constant
0.7084 = Constant
H_T = The net heating value as determined in 60.18(f)(3).

B. The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FGACTIVECOLL-AAAA-1 and FGOPENFLARE-AAAA-1.

Calculation used to determine NMOC emissions from any nonproductive area

The following must be used to determine if any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than one percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material must be documented and provided to the Department upon request. A separate NMOC emissions estimate must be made for each section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill. **(40 CFR 63.1962(a)(3)(ii))**

The NMOC emissions from each section proposed for exclusion must be computed using Equation 7 (40 CFR 63.1962(a)(3)(ii)(A)):

$Q_i = 2\ k\ L_o\ M_i\ (e^{-kti})\ (C_{NMOC})\ (3.6 \times 10^{-9})$

Where:

Q_i = NMOC emission rate from the ith section, Mg/yr

k = methane generation rate constant, $year^1$

L_o = methane generation potential, m^3/Mg solid waste

M_i = mass of the degradable solid waste in the ith section, Mg

t_i = age of the solid waste in the ith section, years

C_{NMOC} = concentration of non-methane organic compounds, ppmv

3.6×10^{-9} = conversion factor

If the permittee is proposing to exclude, or cease gas collection and control from, nonproductive physically separated (*e.g.,* separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically separated closed area must be computed using either Equation 3 in 40 CFR 63.1959(c) or Equation 7 in 40 CFR 63.1962(a)(3)(ii)(A). **(40 CFR 63.1962(a)(3)(ii)(B))**

The values for k and C_{NMOC} determined in field testing must be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (this distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, L_o and C_{NMOC} provided in 40 CFR 63.1959(a)(1) or the alternative values from 40 CFR 63.1959(a)(5) must be used. The mass of nondegradable solid waste contained within the given section may be

subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in 40 CFR 63.1962(a)(3)(i). **(40 CFR 63.1962(a)(3)(iii))**

Net Heating Value of the gas being combusted in the flare:

The permittee has the choice of adhering to the heat content specifications in 40 CFR 63.11(b)(6)(ii) (equations below), and the maximum tip velocity specifications in 40 CFR 63.11(b)(7) or (b)(8), or adhering to the requirements in 40 CFR 63.11(b)(6)(i). **(40 CFR 63.11(b)(6))**

$$H_T = K \sum_{i=1}^{n} C_i H_i$$

Where:

H_T = Net heating value of the sample,
MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25°C and 760 mmHg, but the standard temperature for determining the volume corresponding to one mole is 20°C;

$$K = Constant\ (1.740 \times 10^{-7}) \quad \left(\frac{1}{ppm}\right) \quad \left(\frac{g\ mole}{scm}\right) \quad \left(\frac{MJ}{kcal}\right)$$

Where the standard temperature for $\left(\frac{g\ mole}{scm}\right)$ is 20°C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946–77 or 90 (Reapproved 1994) (Incorporated by reference as specified in 40 CFR 63.14); and

H_i = Net heat of combustion of sample component i, kcal/g mole at 25°C and 760 mmHg. The heats of combustion may be determined using ASTM D2382–76 or 88 or D4809–95 (incorporated by reference as specified in 40 CFR 63.14) if published values are not available or cannot be calculated.

Calculation for Vmax steam-assisted and non-assisted flares

The maximum permitted velocity, V_{max}, for flares complying with 40 CFR 63.11(b)(7)(i) must be calculated and recorded using the equation provided in 40 CFR 63.18(b)(7)(iii). **(40 CFR 63.18(b)(7)(iii))**

$\text{Log}_{10}(V_{max}) = (H_T + 28.8)/31.7$

Where:

V_{max} = Maximum permitted velocity, M/sec
28.8 = Constant
31.7 = Constant
H_T = The net heating value as determined in 63.11(b)(6).

Calculation for Vmax for air-assisted flares

The maximum permitted velocity, V_{max}, for air-assisted flares must be calculated and recorded using the equation provided in 40 CFR 63.11(b)(8). **(40 CFR 63.11(b)(8))**

$V_{max} = 8.71 + 0.708\ (H_T)$

Where:

V_{max} = Maximum permitted velocity, m/sec
8.71 = Constant
0.708 = Constant
H_T = The net heating value as determined in 63.11(b)(6)(ii).

Appendix 8-1. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use EGLE, AQD, Report Certification form (EQP 5736) and EGLE, AQD, Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

B. Other Reporting

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

Section 2 – Adrian Energy Associates, LLC

A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**

- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**

- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**

2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**

3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**

4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities: **(R 336.1213(1)(d))**
   a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
   c. Inspect, at reasonable times, any of the following:
      i. Any stationary source.
      ii. Any emission unit.
      iii. Any equipment, including monitoring and air pollution control equipment.
      iv. Any work practices or operations regulated or required under the ROP.
   d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.

5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**

7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**

8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2).[2] **(R 336.1370)**

10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

Emission Limits

11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in Subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following:"[2] **(R 336.1301(1))**
    a. A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
    b. A limit specified by an applicable federal new source performance standard.

    The grading of visible emissions shall be determined in accordance with Rule 303.

12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
    a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.[1] **(R 336.1901(a))**
    b. Unreasonable interference with the comfortable enjoyment of life and property.[1] **(R 336.1901(b))**

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).[2] **(R 336.2001)**

14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**

15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate. **(R 336.1213(3)(b))**
    a. The date, location, time, and method of sampling or measurements.
    b. The dates the analyses of the samples were performed.
    c. The company or entity that performed the analyses of the samples.
    d. The analytical techniques or methods used.
    e. The results of the analyses.
    f. The related process operating conditions or parameters that existed at the time of sampling or measurement.

17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**

19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**

20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**

21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
    a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
    b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
    c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: **(R 336.1213(3)(c))**
    a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
    b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that; "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete." The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.

23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**

24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**

25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.[2] **(R 336.1912)**

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
    a. The applicable requirements are included and are specifically identified in the ROP.
    b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

    Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
    a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
    b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
    c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**

28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
    a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
    b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
    c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
    d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
    e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**

29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**

31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**

32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(10))**

33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
    a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
    c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
    d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(9))**

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.

37. If the permittee is subject to 40 CFR Part 82 and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).

39. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates as provided in 40 CFR 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
    c. The date on which a regulated substance is first present above a threshold quantity in a process.

40. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.

41. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR Part 68)**

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan’s State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

Permit to Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.[2] **(R 336.1201(1))**

44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.[2] **(R 336.1201(8), Section 5510 of Act 451)**

45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.[2] **(R 336.1219)**

46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.[2] **(R 336.1201(4))**

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

C. EMISSION UNIT SPECIAL CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUICENGINE#1-2	Caterpillar Model No. G3516 Internal Combustion Engine rated for 1138 brake horsepower when fired with landfill gas, connected to an electricity generator. This emission unit, and any replacement of this unit as applicable under R 336.1285(2)(a)(vi), is for a Caterpillar G3516 internal combustion engine greater than 500hp fueled with treated landfill/digester gas to produce electricity.	12-31-1994	FGENGINES-2 FGRICEMACT-2
EUICENGINE#2-2	Caterpillar Model No. G3516 Internal Combustion Engine rated for 1138 brake horsepower when fired with landfill gas, connected to an electricity generator. This emission unit, and any replacement of this unit as applicable under R 336.1285(2)(a)(vi), is for a Caterpillar G3516 internal combustion engine greater than 500hp fueled with treated landfill/digester gas to produce electricity.	12-31-1994	FGENGINES-2 FGRICEMACT-2
EUICENGINE#3-2	Caterpillar Model No. G3516 Internal Combustion Engine rated for 1138 brake horsepower when fired with landfill gas, connected to an electricity generator. This emission unit, and any replacement of this unit as applicable under R 336.1285(2)(a)(vi), is for a Caterpillar G3516 internal combustion engine greater than 500hp fueled with treated landfill/digester gas to produce electricity.	12-31-1994	FGENGINES-2 FGRICEMACT-2
EUTREATMENTSYS-2	This emission unit treats landfill gas before it is used for subsequent use or sale. The treatment system removes particulate to at least the 10-micron level, compresses the landfill gas, and removes enough moisture to ensure good combustion of gas for subsequent use, therefore guaranteeing that the intent of the destruction of the NMOC will be maintained.	12-31-1994	FGTREATMENTSYS-OOO-2 FGTREATMENTSYS-AAAA-2

D. FLEXIBLE GROUP SPECIAL CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGENGINES-2	Reciprocating internal combustion engine(s) fueled with treated landfill/digester gas and used to produce electricity.	EUICENGINE#1-2, EUICENGINE#2-2, EUICENGINE#3-2
FGRICEMACT-2	Existing non-emergency engines greater than 500 hp fueled with landfill/digester gas, located at a major source of HAPs. Construction or reconstruction commenced on or after December 19, 2002.	EUICENGINE#1-2, EUICENGINE#2-2, EUICENGINE#3-2
FGTREATMENTSYS-OOO-2	A treatment system that filters, de-waters, and compresses landfill gas for subsequent sale or beneficial use. This flexible group contains 40 CFR Part 62, Subpart OOO requirements.	EUTREATMENTSYS-2
FGTREATMENTSYS-AAAA-2	A treatment system that filters, de-waters, and compresses landfill gas for subsequent sale or beneficial use. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.	EUTREATMENTSYS-2

FGENGINES-2
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Reciprocating internal combustion engine(s) fueled with treated landfill/digester gas and used to produce electricity. This flexible group includes the emission units below and any subsequent replacements for those units as applicable under R 336.1285(2)(a)(vi).

Emission Units: EUICENGINE#1-2, EUICENGINE#2-2, EUICENGINE#3-2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. CO	21.25 pph[2]	Hourly average on a weekly basis	FGENGINES-2	SC V.1, V.2, VI.3-VI.10	**R 336.1225, R 336.1901, 40 CFR 52.21(d)**
2. NOx	15.38 pph[2]	Hourly average on a weekly basis	FGENGINES-2	SC V.1, V.2, VI.3-VI.10	**R 336.1225, R 336.1901, 40 CFR 52.21(c) and (d)**
3VOC*	6.73 pph[2]	Hourly average on a weekly basis	FGENGINES-2	SC V.1, V.2, VI.3-VI.10	**R 336.1702(a), R 336.1225, R 336.1901**

* This VOC limit includes formaldehyde

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall submit to the AQD District Supervisor, for review and approval, a malfunction abatement/preventative maintenance plan for FGENGINES-2. After approval of the malfunction abatement/preventative maintenance plan by the AQD District Supervisor, the permittee shall not operate FGENGINES-2 unless the malfunction abatement/preventative maintenance plan, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. At a minimum the plan shall include:

   a. Identification of the equipment and, if applicable, air-cleaning device, and the supervisory personnel responsible for overseeing the inspection, maintenance, and repair.

   b. Description of the items or conditions to be inspected and frequency of the inspections or repairs.

   c. Identification of the equipment and, if applicable, air-cleaning device, operating parameters that shall be monitored to detect a malfunction or failure, the normal operating range of these parameters and a description of the method of monitoring or surveillance procedures.

   d. Identification of the major replacement parts that shall be maintained in inventory for quick replacement.

e. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If the plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the plan within 45 days after such an event occurs and submit the revised plan for approval to the AQD District Supervisor. Should the AQD determine the malfunction abatement/preventative maintenance plan to be inadequate, the AQD District Supervisor may request modification of the plan to address those inadequacies. **(R 336.1213(3), R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall verify NOx, CO, and VOC, emission rates from each engine in FGENGINES-2, by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved USEPA Method listed in the table below:

Pollutant	Test Method Reference
NOx	40 CFR Part 60, Appendix A
CO	40 CFR Part 60, Appendix A
VOC (Includes formaldehyde)	40 CFR Part 60, Appendix A; or Method 320 of Appendix A of 40 CFR Part 63

An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall verify the NOx, CO, and VOC emission rates from each engine in FGENGINES-2, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1213(3))**

2. The permittee shall maintain the following record for each engine in FGENGINES-2. The following information shall be recorded and kept on file at the facility:

   a. Engine manufacturer;

   b. Date engine was manufactured;

   c. Engine model number;

   d. Engine horsepower;

   e. Engine serial number;

   f. Engine specification sheet;

g. Date of initial startup of the engine; and

h. Date engine was removed from service at this stationary source.

All of the above information shall be stored in a format acceptable to the AQD District Supervisor. **(R 336.1231(3))**

3. The permittee shall continuously monitor and record the total landfill gas flow rate from the landfill to FGENGINES-2. The permittee shall use the recorded kilowatt hour data to calculate the average hourly landfill gas use rate for each internal combustion engine on a weekly basis.[2] **(R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 52.21(c) and (d))**

4. The permittee shall monitor and record the BTU content of the landfill gas at least once each calendar week.[2] **(R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 52.21(c) and (d))**

5. The permittee shall continuously monitor and record the electrical output, in kilowatt hours, for each internal combustion engine. The permittee shall use the recorded kilowatt hour data to calculate the average hourly horsepower output of each internal combustion engine on a weekly basis using the equation in Appendix 7-2.[2] **(R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 52.21(c) and (d))**

6. The permittee shall calculate and record the average hourly heat input for each internal combustion engine on a weekly basis, using records of LFG flow rate and weekly landfill gas BTU content readings.[2] **(R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 52.21(c) and (d))**

7. The permittee shall monitor and record the hours of operation for each internal combustion engine on a weekly basis.[2] **(R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 52.21(c) and (d))**

8. The permittee shall maintain records of all information necessary for all notifications and reports for each engine in FGENGINES-2, as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of the permit. This information shall include, but shall not be limited to the following:

   a. Compliance tests and any testing required under the special conditions of this permit.

   b. Monitoring data for the hours of operation, volumetric flow rate and landfill gas usage.

   c. Calculated amount of landfill gas combusted in each engine on a monthly and 12-month rolling basis.

   d. Hours of operation on a monthly and 12-month rolling basis.

   e. Monthly average BTU content of the landfill gas burned.

   f. Manufacturer's data, specifications, and operating and maintenance procedures.

   g. Maintenance activities conducted according to the MAP.

   h. All calculations necessary to show compliance with the limits contained in this permit.

All of the above information shall be stored in a format acceptable to the AQD District Supervisor. **(R 336.1213(3))**

9. The permittee shall calculate and record the average hourly emission rate for CO, NOx and VOC on a weekly basis for FGENGINES-2 using the equations in Appendix 7-2.[2] **(R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 52.21(c) and (d))**

See Appendices 3-2 and 7-2

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVICENGINE#1	12[2]	25[2]	**R 336.1225, R 336.1901, 40 CFR 52.21(c) and (d)**
2. SVICENGINE#2	12[2]	25[2]	**R 336.1225, R 336.1901, 40 CFR 52.21(c) and (d)**
3. SVICENGINE#3	12[2]	25[2]	**R 336.1225, R 336.1901, 40 CFR 52.21(c) and (d)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and ZZZZ, as they apply to each engine in FGENGINES. **(40 CFR Part 63, Subparts A and ZZZZ)**

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGRICEMACT-2
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Existing non-emergency engines greater than 500 hp fueled with landfill/digester gas, located at a major source of HAPs. Construction or reconstruction commenced on or after December 19, 2002.

Emission Units: EUICENGINE#1-2, EUICENGINE#2-2, EUICENGINE#3-2

POLLUTION CONTROL EQUIPMENT

NA.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only burn treated landfill gas in FGRICEMACT-2. **(R 336.1213(2))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install and maintain a fuel meter on the engines in FGRICEMACT-2 to monitor and record the daily fuel usage and volumetric flow rate of treated landfill gas used. **(R 336.1213(3))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall submit an annual report for FGRICEMACT in accordance with Table 7 of 40 CFR Part 63, Subpart ZZZZ to the appropriate AQD District Office by no later than March 15. **(40 CFR 63.6650(b)(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, as they apply to each engine in FGRICEMACT-2. **(40 CFR Part 63, Subparts A and ZZZZ)**

FGTREATMENTSYS-OOO-2
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

A treatment system that filters, de-waters, and compresses landfill gas for subsequent sale or beneficial use. This flexible group contains 40 CFR Part 62, Subpart OOO requirements.

Emission Unit: EUTREATMENTSYS-2

POLLUTION CONTROL EQUIPMENT

Any emissions from any atmospheric vents or stacks associated with the treatment system subject to 40 CFR 62.16714(c)(1) or (2).

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate the treatment system so that any emissions from any atmospheric vents or stacks associated with the treatment system must comply with 40 CFR 62.16714(c)(1) or (2). **(40 CFR 62.16714(c)(3) and (4))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Each permittee that chooses to comply with the provisions in 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed in 40 CFR 62.16716, 40 CFR 62.16720, and 40 CFR 62.16722, must keep records of the date upon which the permittee started complying with the provisions in 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961 and must keep records according to 40 CFR 63.1983(e)(1) through (5). **(40 CFR 62.16726(e))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. If complying with the operational provisions of 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed in 40 CFR 62.16716, 40 CFR 62.16720, and 40 CFR 62.16722, the permittee must follow the semi-annual reporting requirements in 40 CFR 63.1981(h) in lieu of 40 CFR 62.16724(h). **(40 CFR 62.16724(h))**

5. The permittee must submit reports electronically according to the following:

   a. Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8), the permittee must submit the results of each performance test. For data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert), submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI). The CEDRI can be accessed through the USEPA's CDX (https://cdx.epa.gov/). Performance test data must be submitted in a file format generated through the use of the USEPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website, once the XML schema is available. **(40 CFR 62.16724(j)(1)(i))**

   b. For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website at the time of the test, submit the results of the performance test to the USEPA at the appropriate address listed in 40 CFR 60.4. **(40 CFR 62.16724(j)(1)(ii))**

   c. Each permittee must submit reports to the USEPA via CEDRI (CEDRI can be accessed through the USEPA's CDX). The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/chief). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the permittee must submit the report to the USEPA at the appropriate address listed in 40 CFR 60.4. Once the form has been available in CEDRI for 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. **(40 CFR 62.16724(j)(2))**

6. The permittee shall submit any performance test reports and all other reports required by 40 CFR Part 62, Subpart OOO to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must comply with all applicable provisions of the Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 as specified in 40 CFR Part 62, Subpart OOO. Each permittee must comply with the provisions for the operational standards in 40 CFR 63.1958 (as well as the provisions in 40 CFR 63.1960 and 40 CFR 63.1961), for an MSW landfill with a gas collection and control system used to comply with the provisions of 40 CFR 62.16714(b) and (c). Once the permittee begins to comply with the provisions of 40 CFR 63.1958, 40 CFR 63.1960 and 40 CFR 63.1961, the permittee must continue to operate the collection and control device according to those provisions and cannot return to the provisions of 40 CFR 62.16716, 40 CFR 62.16720 and 40 CFR 62.16722. **(40 CFR 62.16716, 40 CFR 62.16720, 40 CFR 62.16722, 40 CFR Part 62, Subpart OOO)**

FGTREATMENTSYS-AAAA-2
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

A treatment system that filters, de-waters, and compresses landfill gas for subsequent sale or beneficial use. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.

Emission Unit: EUTREATMENTSYS-2

POLLUTION CONTROL EQUIPMENT

Any emissions from any atmospheric vents or stacks associated with the treatment system subject to 40 CFR 63.1959(b)(2)(iii)(A) or (B).

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate the treatment system at all times when the collected gas is routed to the treatment system. **(40 CFR 63.1958(f))**

2. The permittee must operate the treatment system so that any emissions from any atmospheric vents or stacks associated with the treatment system must comply with 40 CFR 63.1959(b)(2)(iii)(A) or (B). **(40 CFR 63.1959(b)(2)(iii)(C) and (D))**

3. The permittee must develop a site-specific treatment system monitoring plan as required in 40 CFR 63.1983(b)(5)(ii). The plan must at a minimum contain the following: **(40 CFR 63.1961(g))**

   a. Monitoring of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. **(40 CFR 63.1983(b)(5)(ii)(A))**

   b. Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas. **(40 CFR 63.1983(b)(5)(ii)(B))**

   c. Documentation of the monitoring methods and ranges, along with justification for their use. **(40 CFR 63.1983(b)(5)(ii)(C))**

   d. List of responsible staff (by job title) for data collection. **(40 CFR 63.1983(b)(5)(ii)(D))**

   e. Processes and methods used to collect the necessary data. **(40 CFR 63.1983(b)(5)(ii)(E))**

   f. Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems (CMS). **(40 CFR 63.1983(b)(5)(ii)(F))**

4. The monitoring requirements apply at all times the treatment system is operating except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. The permittee must complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. **(40 CFR 63.1961(h))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee must install and properly operate a treatment system in accordance with 40 CFR 63.1981(d)(2). **(40 CFR 63.1961(d))**

2. The permittee must install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. **(40 CFR 63.1961(g))**

V. TESTING/SAMPLING

Records must be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records must be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must keep monthly records of all treatment system operating parameters specified to be monitored according to 40 CFR 63.1961. The records must include:

   a. Continuous records of the indication of flow and gas flow rate to the treatment system. **(40 CFR 63.1983(c)(2))**

   b. The indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines. **(40 CFR 63.1983(c)(2))**

   c. Maintenance and repair of the monitoring system. **(40 CFR 63.1961(h))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report must be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report must be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee must submit to the appropriate AQD District Office semiannual reports for the landfill gas treatment system. The reports must be received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. The reports must include the following:

   a. The number of times the parameters for the treatment system under 40 CFR 63.1961(g) were exceeded. **(40 CFR 63.1981(h)(1)(iii)**

   b. Description and duration of all periods when the gas stream is diverted from the treatment system through a bypass line or the indication of bypass flow. **(40 CFR 63.1981(h)(2))**

   c. Description and duration of all periods when the treatment system was not operating and length of time the treatment system was not operating. **(40 CFR 63.1981(h)(3))**

5. The permittee must submit reports electronically according to the following:

   a. Within 60 days after the date of completing each performance test required, submit the results of the performance test with data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert). Submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the USEPA's CDX (https://cdx.epa.gov/). The data must be submitted in a file format generated through the use of the USEPA's ERT. Alternatively, submit an electronic file consistent with the extensible markup language (XML) schema listed on the USEPA's ERT website. **(40 CFR 63.1981(l)(1)(i)**

   b. For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website, the results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the USEPA's ERT website. Submit the ERT generated package or alternative file to the USEPA via CEDRI. **(40 CFR 63.1981(l)(1)(ii)**

   c. Each permittee must submit reports to the USEPA via CEDRI. CEDRI can be accessed through the USEPA's CDX. The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/chief). Once the spreadsheet template upload/forms for the reports have been available in CEDRI for 90 days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. The semiannual reports should be electronically reported as a spreadsheet template upload/form to CEDRI. If the reporting forms specific to this subpart are not available in CEDRI at the time that the reports are due, the permittee must submit the reports to the USEPA at the appropriate address listed in 40 CFR 63.13. **(40 CFR 63.1981(l)(2))**

6. The permittee shall submit any performance test reports and all other reports required by 40 CFR Part 63, Subpart AAAA to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills as specified in 40 CFR Part 63, Subparts A and AAAA. **(40 CFR Part 63, Subparts A and AAAA)**

2. The permittee shall have implemented a written Preventative Maintenance Plan (PMP) for EUTREATMENTSYS-2. At a minimum, the plan shall include a schedule of maintenance activities consistent with manufacturer's recommendations, and the operating variables that will be monitored to detect a malfunction or failure. A copy of the PMP shall be maintained on site and available upon request. If the plan is revised, it shall be submitted to the AQD District Supervisor for review and approval. **(R 336.1213(3), R 336.1911)**

See Appendix 9-2

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

APPENDICES

Appendix 1-2. Acronyms and Abbreviations

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO_2e	Carbon Dioxide Equivalent
CEMS	Continuous Emission Monitoring System	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
Department/ department	Michigan Department of Environment, Great Lakes, and Energy	gr	Grains
		HAP	Hazardous Air Pollutant
EGLE	Michigan Department of Environment, Great Lakes, and Energy	Hg	Mercury
		hr	Hour
EU	Emission Unit	HP	Horsepower
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallons of Applied Coating Solids	kW	Kilowatt
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	m	Meter
HVLP	High Volume Low Pressure*	mg	Milligram
ID	Identification	mm	Millimeter
IRSL	Initial Risk Screening Level	MM	Million
ITSL	Initial Threshold Screening Level	MW	Megawatts
LAER	Lowest Achievable Emission Rate	NMOC	Non-methane Organic Compounds
MACT	Maximum Achievable Control Technology	NO_x	Oxides of Nitrogen
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	Particulate Matter equal to or less than 10 microns in diameter
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pounds per hour
		ppm	Parts per million
NSPS	New Source Performance Standards	ppmv	Parts per million by volume
NSR	New Source Review	ppmw	Parts per million by weight
PS	Performance Specification	%	Percent
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonable Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO_2	Sulfur Dioxide
SC	Special Condition	TAC	Toxic Air Contaminant
SCR	Selective Catalytic Reduction	Temp	Temperature
SNCR	Selective Non-Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TEQ	Toxicity Equivalence Quotient	µg	Microgram
USEPA/EPA	United States Environmental Protection Agency	µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
VE	Visible Emissions	yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

Appendix 2-2. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. **(R 336.1213(4)(a), R 336.1119(a)(ii))**

Appendix 3-2. Monitoring Requirements

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in FGENGINES-2.

The permittee shall implement and maintain a recordkeeping and equipment monitoring program. The Adrian Energy Associates program referred to as "*ROP Recordkeeping and Equipment Monitoring Plan"* shall contain the internal standard work instructions and monitoring procedures the permittee shall use to monitor and record operating parameters and usage rates for each EUICENGINE.

An acceptable "*ROP Recordkeeping and Equipment Monitoring Plan"* Version 1.3 last revised February 21, 2019 was submitted to the AQD Jackson District Supervisor. Any modifications to the plan shall be subject to the agreement of both the AQD District Supervisor and the permittee. Records in support of the activities required by the program shall be maintained. These records shall be made available upon inspection of the facility, or as otherwise requested by AQD.

Appendix 4-2. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 5-2. Testing Procedures

There are no specific testing requirement plans or procedures for this ROP. Therefore, this appendix is not applicable.

Appendix 6-2. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-N2369-2014. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-N2369-2014 is being reissued as Source-Wide PTI No. MI-PTI-N2369-2020b.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	NA	NA	NA

The following table lists the ROP amendments or modifications issued after the effective date of ROP No. MI-ROP-N2369-2020b.

Permit to Install Number	ROP Revision Application Number - Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	202200203 / January 20, 2023	Remove SC VI.8 and VI.9 in FGENGINES-2 of Section 2 in the ROP. These two Conditions theoretically were supposed to provide a means of demonstrating ongoing compliance with the NOx emission limit. It has been determined that measurement of the temperature of the air/fuel mixture at the aftercooler is not a good indicator of compliance with the NOx emission limit. A new Condition, SC VI.8, was added to replace the Conditions removed. The new Condition added is consistent with the monitoring and recordkeeping requirements in similar ROPs.	FGENGINES-2

Appendix 7-2. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FGENGINES-2.

Carbon Monoxide (CO), Nitrogen Oxide (NOx), and Volatile Organic Compound (VOC):

The permittee shall calculate emissions using the emission factors and equations listed below or an alternative method approved by the District Supervisor. The emission factors shall be established and updated through stack testing and approved by the District Supervisor.

Internal Combustion Engine horsepower (EUICENGINE HP) = Generator output (kW) / (0.746kW/HP * 0.939)

Pounds per hour (lb/Hr) = EUICENGINE HP * lb/454g * X g/HP*Hr, where X is a factor from table below.

Landfill Gas Usage per Engine Calculation

LFG used by engine = (total LFG metered) * (kWh engine)/ (total kWh all engines)

Avg. LFG flow rate = (LFG used by engine)/ (operating hours of engine)

Appendix 8-2. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the EGLE, AQD, Report Certification form (EQP 5736) and EGLE, AQD, Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

B. Other Reporting

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

Appendix 9-2. Gas Treatment System Preventative Maintenance Plan

The permittee shall implement the Preventative Maintenance Plan (PMP) required for EUTREATMENTSYS-2 (FGTREATMENTSYS-AAAA-2, SC IX.2). An acceptable PMP Version 2.1 last reviewed February 2019, was submitted to the AQD Jackson District Supervisor. The PMP and its associated recordkeeping format have been approved by the AQD through approval of this ROP. Any modifications to the plan shall be submitted to the AQD District Supervisor for approval and are subject to review by the AQD. Records in support of the activities required by the plan shall be maintained. These records shall be made available upon inspection of the facility, or as otherwise requested by the AQD.

From:	Wentling, Edward
To:	EGLE-ROP
Cc:	Merle, Brian (EGLE)
Subject:	LES Project Holdings, LLC- Adrian Energy LFGTE Facility - RO Permit Renewal Application
Date:	Friday, August 23, 2024 9:24:36 AM
Attachments:	image001.png N2369 Adrian Energy Associates ROP Renewal Application 08.23.24_FINAL.pdf

Hello EGLE,

Please find attached the ROP renewal application for the above referenced facility (Air Permit ROP MI-ROP-N2369-2020B / SRN No. N2369). Hard copy is being sent to EGLE via FedEx.

Please let me know if you have any questions regarding this application.

Regards,
Ed

Ed Wentling
PGD Environmental Services Manager
NextEra Energy Pipeline Services

| **Cell** (215) 285-8220

PO Box 39
Orefield, PA 18069

Don't Learn Safety by Accident!

August 23, 2024

District Supervisor
Michigan Department of Environment, Great Lakes
and Energy, Air quality Division
Jackson District Office
State Office Building, 4th Floor
301 E. Louis Glick Highway
Jackson, MI 49201-1556

RE: Renewable Operating Permit renewal application for Adrian Energy Associates, LLC at the Adrian Landfill, State Registration No.: N2369

Adrian Energy Associates, LLC (Adrian Energy Associates) at the Adrian Landfill is forwarding to the Michigan Department of Environment, Great Lakes and Energy, Air Quality Division (EGLE-AQD) Jackson District Office a copy of the Renewable Operating Permit (ROP) renewal application for its facility located in Adrian, Lenawee County, Michigan currently operating under ROP No. MI-ROP-N2369-2020B.

The renewal application is being submitted pursuant to the requirements of Title V of the Federal Clean Air Act of 1990. Impact Compliance & Testing, Inc. (ICT) assisted in the preparation of the renewal application.

The following attachment presents the RO Permit renewal application for Adrian Energy Associates.

If you require additional information or have any questions regarding this request, please feel free to contact me at: (215) 767-5131 or email at ewentling@nexteraenergy.com.

Sincerely,

Edward C Wentling

Ed Wentling
PGD Environmental Services Manager

Attached: RO Permit Renewal Application

Cc: (Hard Copy)
Michigan EGLE Jackson District Office

Cc: (via emailed pdf)

Brian Merle	EGLE
David Pachan	Republic Services
Clay Gaffey	IMPACT C&T
David Mooney	NEER (PGD-Operations)
Eric Bisco	NEER (PGD-Operations)

File

ADRIAN ENERGY ASSOCIATES, LLC

RENWABLE OPERATING PERMIT RENEWAL APPLICATION

TABLE OF CONTENTS

EGLE

RENEWABLE OPERATING PERMIT
RENEWAL APPLICATION FORM

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Refer to instructions for additional information to complete the Renewable Operating Permit Renewal Application Form.

GENERAL INSTRUCTIONS

This application form should be submitted as part of an administratively complete application package for renewal of a Renewable Operating Permit (ROP). This application form consists of nine parts. Parts A – H must be completed for all applications and must also be completed for each section of a sectioned ROP. Answer all questions in all parts of the form unless directed otherwise. Detailed instructions for this application form can be found at http://michigan.gov/air (select the Permits Tab, "Renewable Operating Permits (ROP)/Title V", then "ROP Forms & Templates").

PART A: GENERAL INFORMATION

Enter information about the source, owner, contact person and the responsible official.

SOURCE INFORMATION

SRN	SIC Code	NAICS Code	Existing ROP Number	Section Number (if applicable)
N2369		221119	N2369-2020b	02

Source Name
Adrian Energy Associates, LLC at the Adrian Landfill

Street Address
1900 N. Ogden Highway

City	State	ZIP Code	County
Adrian	MI	49221	Lenawee

Section/Town/Range (if address not available)

Source Description
Landfill gas to energy generation facility

☐ Check here if any of the above information is different than what appears in the existing ROP. Identify any changes on the marked-up copy of your existing ROP.

OWNER INFORMATION

Owner Name	Section Number (if applicable)
NextEra Energy Resources	

Mailing address (☐ check if same as source address)
1605 N. Cedar Crest Blvd., Suite 509

City	State	ZIP Code	County	Country
Allentown	PA	18104	Lehigh	USA

☐ Check here if any information in this ROP renewal application is confidential. Confidential information should be identified on an Additional Information (AI-001) Form.

SRN: N2369	Section Number (if applicable): 02

PART A: GENERAL INFORMATION (continued)

At least one contact and responsible official must be identified. Additional contacts and responsible officials may be included if necessary.

CONTACT INFORMATION

Contact 1 Name			Title	
Ed Wentling			Environmental Services Manager	
Company Name & Mailing address (☐ check if same as source address)				
NextEra Energy Resources – 1605 N. Cedar Crest Blvd.				
City	State	ZIP Code	County	Country
Allentown	PA	18104	Lehigh	USA
Phone number		E-mail address		
(215) 767-5131		edward.wentling@nexteraenergy.com		

Contact 2 Name (optional)			Title	
Clay Gaffey			Project Manager	
Company Name & Mailing address (☐ check if same as source address)				
Impact Compliance & Testing, Inc. – 4180 Keller Rd. Ste B				
City	State	ZIP Code	County	Country
Holt	MI	48842	Ingham	USA
Phone number		E-mail address		
(517) 481-3645		Clay.gaffey@impactcandt.com		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name			Title	
Ross Groffman			Vice President of Development - NextEra	
Company Name & Mailing address (☐ check if same as source address)				
NextEra Energy Resources – 700 Universe Blvd., Mail Code FEW/JB				
City	State	ZIP Code	County	Country
Juno Beach	FL	33408	Palm Beach	USA
Phone number		E-mail address		
(561) 304-5783		Ross.groffman@nexteraenergy.com		

Responsible Official 2 Name (optional)			Title	
Danny Schedule			Sr. Director Midstream Operations & Construction	
Company Name & Mailing address (☐ check if same as source address)				
NextEra Project Management – 601 Travis Street, Suite 1900, Chase Center (Mail Code: CCH/CCG)				
City	State	ZIP Code	County	Country
Houston	TX	77002	Harris	USA
Phone number		E-mail address		
(713) 374-1583		Danny.schedule@nexteraenergy.com		

☐ Check here if an AI-001 Form is attached to provide more information for Part A. Enter AI-001 Form ID:

SRN: N2369	Section Number (if applicable): 02

PART B: APPLICATION SUBMITTAL and CERTIFICATION by Responsible Official

Identify the items that are included as part of your administratively complete application in the checklist below. For your application to be complete, it must include information necessary to evaluate the source and to determine all applicable requirements. Answer the compliance statements as they pertain to all the applicable requirements to which the source is subject. The source's Responsible Official must sign and date this form.

Listing of ROP Application Contents. Check the box for the items included with your application.	
☒ Completed ROP Renewal Application Form (and any AI-001 Forms) (required)	☐ Compliance Plan/Schedule of Compliance
☒ Mark-up copy of existing ROP using official version from the AQD website (required)	☒ Stack information
☐ Copies of all Permit(s) to Install (PTIs) that have not been incorporated into existing ROP (required)	☐ Acid Rain Permit Initial/Renewal Application
☒ Criteria Pollutant/Hazardous Air Pollutant (HAP) Potential to Emit Calculations	☐ Cross-State Air Pollution Rule (CSAPR) Information
☐ MAERS Forms (to report emissions not previously submitted)	☐ Confidential Information
☐ Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP	☒ Paper copy of all documentation provided (required)
☐ Compliance Assurance Monitoring (CAM) Plan	☒ Electronic documents provided (optional)
☒ Other Plans (e.g., Malfunction Abatement, Fugitive Dust, Operation and Maintenance, etc.)	☐ Other, explain:

Compliance Statement

This source is in compliance with **all** of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP.	☒ Yes ☐ No
This source will continue to be in compliance with all of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP.	☒ Yes ☐ No
This source will meet in a timely manner applicable requirements that become effective during the permit term.	☒ Yes ☐ No

The method(s) used to determine compliance for each applicable requirement is/are the method(s) specified in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and all other applicable requirements not currently contained in the existing ROP.

If any of the above are checked No, identify the emission unit(s) or flexible group(s) affected and the specific condition number(s) or applicable requirement for which the source is or will be out of compliance at the time of issuance of the ROP renewal on an AI-001 Form. Provide a compliance plan and schedule of compliance on an AI-001 Form.

Name and Title of the Responsible Official (Print or Type)

Danny Schedule – Sr. Director Midstream Operations & Construction

As a Responsible Official, I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate, and complete.

Danny Schedule — **Signature of Responsible Official**

08/22/2024 — **Date**

SRN: N2369	Section Number (if applicable): 02

PART C: SOURCE REQUIREMENT INFORMATION

Answer the questions below for specific requirements or programs to which the source may be subject.

C1.	Actual emissions and associated data from **all** emission units with applicable requirements (including those identified in the existing ROP, Permits to Install and other equipment that have not yet been incorporated into the ROP) are required to be reported in MAERS. Are there any emissions and associated data that have not been reported in MAERS for the most recent emissions reporting year? If Yes, identify the emission unit(s) that was/were not reported in MAERS on an AI-001 Form. Applicable MAERS form(s) for unreported emission units must be included with this application.	☐ Yes ☒ No
C2.	Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)	☐ Yes ☒ No
C3.	Is this source subject to the federal Chemical Accident Prevention Provisions? (Section 112(r) of the Clean Air Act Amendments, 40 CFR Part 68) If Yes, a Risk Management Plan (RMP) and periodic updates must be submitted to the USEPA. Has an updated RMP been submitted to the USEPA?	☐ Yes ☒ No ☐ Yes ☒ No
C4.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NOx, PM10, PM2.5, SO_2, VOC, lead) emissions? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers, or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. If No, criteria pollutant potential emission calculations do not need to be included.	☐ Yes ☒ No
C5.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the PTE for hazardous air pollutants (HAPs) regulated by Section 112 of the federal Clean Air Act? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. Fugitive emissions must be included in HAP emission calculations. If No, HAP potential emission calculations do not need to be included.	☐ Yes ☒ No
C6.	Are any emission units subject to the Cross-State Air Pollution Rule (CSAPR)? If Yes, identify the specific emission unit(s) subject to CSAPR on an AI-001 Form.	☐ Yes ☒ No
C7.	Are any emission units subject to the federal Acid Rain Program? If Yes, identify the specific emission unit(s) subject to the federal Acid Rain Program on an AI-001 Form. Is an Acid Rain Permit Renewal Application included with this application?	☐ Yes ☒ No ☐ Yes ☒ No
C8.	Are any emission units identified in the existing ROP subject to compliance assurance monitoring (CAM)? If Yes, identify the specific emission unit(s) subject to CAM on an AI-001 Form. If a CAM plan has not been previously submitted to EGLE, one must be included with the ROP renewal application on an AI-001 Form. If the CAM Plan has been updated, include an updated copy. Is a CAM plan included with this application? If a CAM Plan is included, check the type of proposed monitoring included in the Plan: 1. Monitoring proposed by the source based on performance of the control device, or 2. Presumptively Acceptable Monitoring, if eligible	☐ Yes ☒ No ☐ Yes ☒ No ☐ ☐
C9.	Does the source have any plans such as a malfunction abatement plan, fugitive dust plan, operation/maintenance plan, or any other monitoring plan that is referenced in an existing ROP, Permit to Install requirement, or any other applicable requirement? If Yes, then a copy must be submitted as part of the ROP renewal application.	☒ Yes ☐ No
C10.	Are there any specific requirements that the source proposes to be identified in the ROP as non-applicable? If Yes, then a description of the requirement and justification must be submitted as part of the ROP renewal application on an AI-001 Form.	☐ Yes ☒ No

☒ Check here if an AI-001 Form is attached to provide more information for Part C. Enter AI-001 Form ID: **AI-ENGINE-MA/PMP, TRMTSYS-MA/PMP**

SRN: N2369	Section Number (if applicable): 02

PART D: PERMIT TO INSTALL (PTI) EXEMPT EMISSION UNIT INFORMATION

Review all emission units at the source and answer the question below.

D1. Does the source have any emission units that do not appear in the existing ROP but are required to be listed in the ROP application under R 336.1212(4) (Rule 212(4)) of the Michigan Air Pollution Control Rules? If Yes, identify the emission units in the table below. ☐ Yes ☒ No

If No, go to Part E.

Note: Emission units that are subject to process specific emission limitations or standards, even if identified in Rule 212, must be captured in either Part G or H of this application form. Identical emission units may be grouped (e.g. PTI exempt Storage Tanks).

Emission Unit ID	**Emission Unit Description**	**Rule 212(4) Citation** [e.g. Rule 212(4)(c)]	**Rule 201 Exemption Rule Citation** [e.g. Rule 282(2)(b)(i)]

Comments:

☐ Check here if an AI-001 Form is attached to provide more information for Part D. Enter AI-001 Form ID: **AI-**

SRN: N2369	Section Number (if applicable): 02

PART E: EXISTING ROP INFORMATION

Review all emission units and applicable requirements (including any source wide requirements) in the existing ROP and answer the questions below as they pertain to **all** emission units and **all** applicable requirements in the existing ROP.

E1. Does the source propose to make any additions, changes or deletions to terms, conditions and underlying applicable requirements as they appear in the existing ROP? If Yes, identify changes and additions on Part F, Part G and/or Part H.	☐ Yes ☒ No
E2. For each emission unit(s) identified in the existing ROP, all stacks with applicable requirements are to be reported in MAERS. Are there any stacks with applicable requirements for emission unit(s) identified in the existing ROP that were not reported in the most recent MAERS reporting year? If Yes, identity the stack(s) that was/were not reported on applicable MAERS form(s).	☐ Yes ☒ No
E3. Have any emission units identified in the existing ROP been modified or reconstructed that required a PTI? If Yes, complete Part F with the appropriate information.	☐ Yes ☒ No
E4. Have any emission units identified in the existing ROP been dismantled? If Yes, identify the emission unit(s) and the dismantle date in the comment area below or on an AI-001 Form.	☐ Yes ☒ No

Comments:

☐ Check here if an AI-001 Form is attached to provide more information for Part E. Enter AI-001 Form ID: **AI-**

PART F: PERMIT TO INSTALL (PTI) INFORMATION

Review all emission units and applicable requirements at the source and answer the following questions as they pertain to **all** emission units with PTIs. Any PTI(s) identified below must be attached to the application.

F1. Has the source obtained any PTIs where the applicable requirements from the PTI have not been incorporated into the existing ROP? If Yes, complete the following table. If No, go to Part G. ☐ Yes ☒ No

Permit to Install Number	Emission Units/Flexible Group ID(s)	Description (*Include Process Equipment, Control Devices and Monitoring Devices*)	Date Emission Unit was Installed/ Modified/ Reconstructed

F2. Do any of the PTIs listed above change, add, or delete terms/conditions to **established emission units** in the existing ROP? If Yes, identify the emission unit(s) or flexible group(s) affected in the comments area below or on an AI-001 Form and identify all changes, additions, and deletions in a mark-up of the existing ROP. ☐ Yes ☐ No

F3. Do any of the PTIs listed above identify **new emission units** that need to be incorporated into the ROP? If Yes, submit the PTIs as part of the ROP renewal application on an AI-001 Form, and include the new emission unit(s) or flexible group(s) in the mark-up of the existing ROP. ☐ Yes ☐ No

F4. Are there any stacks with applicable requirements for emission unit(s) identified in the PTIs listed above that were not reported in MAERS for the most recent emissions reporting year? If Yes, identity the stack(s) that were not reported on the applicable MAERS form(s). ☐ Yes ☐ No

F5. Are there any proposed administrative changes to any of the emission unit names, descriptions or control devices in the PTIs listed above for any emission units not already incorporated into the ROP? If Yes, describe the changes on an AI-001 Form. ☐ Yes ☐ No

Comments:

☐ Check here if an AI-001 Form is attached to provide more information for Part F. Enter AI-001 Form ID: **AI-**

SRN: N2369	Section Number (if applicable): 02

PART G: EMISSION UNITS MEETING THE CRITERIA OF RULES 281(2)(h), 285(2)(r)(iv), 287(2)(c), OR 290

Review all emission units and applicable requirements at the source and answer the following questions.

G1. Does the source have any new and/or existing emission units which do not already appear in the existing ROP and which meet the criteria of Rules 281(2)(h), 285(2)(r)(iv), 287(2)(c), or 290.

If Yes, identify the emission units in the table below. If No, go to Part H. ☐ Yes ☒ No

Note: If several emission units were installed under the same rule above, provide a description of each and an installation/modification/reconstruction date for each.

Origin of Applicable Requirements	**Emission Unit Description – *Provide Emission Unit ID and a description of Process Equipment, Control Devices and Monitoring Devices***	**Date Emission Unit was Installed/ Modified/ Reconstructed**
☐ Rule 281(2)(h) or 285(2)(r)(iv) cleaning operation		
☐ Rule 287(2)(c) surface coating line		
☐ Rule 290 process with limited emissions		

Comments:

☐ Check here if an AI-001 Form is attached to provide more information for Part G. Enter AI-001 Form ID: **AI-**

SRN: N2369	Section Number (if applicable): 02

PART H: REQUIREMENTS FOR ADDITION OR CHANGE

Complete this part of the application form for all proposed additions, changes or deletions to the existing ROP. This includes state or federal regulations that the source is subject to and that must be incorporated into the ROP or other proposed changes to the existing ROP. **Do not include additions or changes that have already been identified in Parts F or G of this application form.** If additional space is needed copy and complete an additional Part H.

Complete a separate Part H for each emission unit with proposed additions and/or changes.

H1. Are there changes that need to be incorporated into the ROP that have not been identified in Parts F and G? If Yes, answer the questions below.	☐ Yes ☒ No
H2. Are there any proposed administrative changes to any of the existing emission unit names, descriptions or control devices in the ROP? If Yes, describe the changes in questions H8 – H16 below and in the affected Emission Unit Table(s) in the mark-up of the ROP.	☐ Yes ☐ No
H3. Does the source propose to add a new emission unit or flexible group to the ROP not previously identified in Parts F or G? If Yes, identify and describe the emission unit name, process description, control device(s), monitoring device(s) and applicable requirements in questions H8 – H16 below and in a new Emission Unit Table in the mark-up of the ROP. See instructions on how to incorporate a new emission unit/flexible group into the ROP.	☐ Yes ☐ No
H4. Does the source propose to add new state or federal regulations to the existing ROP? If Yes, on an AI-001 Form, identify each emission unit/flexible group that the new regulation applies to and identify each state or federal regulation that should be added. Also, describe the new requirements in questions H8 – H16 below and add the specific requirements to existing emission units/flexible groups in the mark-up of the ROP, create a new Emission Unit/Flexible Group Table, or add an AQD template table for the specific state or federal requirement.	☐ Yes ☐ No
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were not incorporated into the existing ROP? If Yes, list the CO/CJ number(s) below and add or change the conditions and underlying applicable requirements in the appropriate Emission Unit/Flexible Group Tables in the mark-up of the ROP.	☐ Yes ☐ No
H6. Does the source propose to add, change and/or delete **source-wide** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☐ No
H7. Are you proposing to **streamline** any requirements? If Yes, identify the streamlined and subsumed requirements and the EU ID, and provide a justification for streamlining the applicable requirement below.	☐ Yes ☐ No

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H8. Does the source propose to add, change and/or delete **emission limit** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☐ No
H9. Does the source propose to add, change and/or delete **material limit** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☐ No
H10. Does the source propose to add, change and/or delete **process/operational restriction** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☐ No
H11. Does the source propose to add, change and/or delete **design/equipment parameter** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☐ No
H12. Does the source propose to add, change and/or delete **testing/sampling** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☐ No
H13. Does the source propose to add, change and/or delete **monitoring/recordkeeping** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☐ No
H14. Does the source propose to add, change and/or delete **reporting** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☐ No

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H15. Does the source propose to add, change and/or delete **stack/vent restrictions**? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☐ No
H16. Does the source propose to add, change and/or delete any **other** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☐ No
H17. Does the source propose to add terms and conditions for an alternative operating scenario or intra-facility trading of emissions? If Yes, identify the proposed conditions in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☐ No
☐ Check here if an AI-001 Form is attached to provide more information for Part H. Enter AI-001 Form ID: **AI-**	

EGLE

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

	SRN: N2369	Section Number (if applicable): 02

1. Additional Information ID
AI-ENGINE-MA/PMP

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

Malfunction Abatement & Preventative Maintenance Plan for Engine Nos. 1, 2, and 3 (FGENGINES)

EGLE

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

	SRN: N2369	Section Number (if applicable): 02

1. Additional Information ID
AI-ROP-MARKUP

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

Mark-up of existing RO Permit

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION

EFFECTIVE DATE: ~~March 4, 2020~~New date
REVISION DATES: ~~August 16, 2022, January 20, 2023~~New dates

ISSUED TO

Adrian Landfill, Inc.
and
Adrian Energy Associates, LLC

State Registration Number (SRN): N2369

LOCATED AT

1970 and 1900 North Ogden Highway, Adrian, Lenawee County, Michigan 49221

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-N2369-~~2020b~~20XX

Expiration Date: ~~March 4, 2025~~New date

Administratively Complete ROP Renewal Application
Due Between ~~September 4, 2023 and September 4, 2024~~New dates

This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Pursuant to Rule 210(1) of the administrative rules promulgated under Act 451, this ROP constitutes the permittee's authority to operate the stationary source identified above in accordance with the general conditions, special conditions and attachments contained herein. Operation of the stationary source and all emission units listed in the permit are subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-N2369-~~2020b~~20XX

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(1) of Act 451. Pursuant to Rule 214a of the administrative rules promulgated under Act 451, the terms and conditions herein, identified by the underlying applicable requirement citation of Rule 201(1)(a), constitute a federally enforceable PTI. The PTI terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

Michigan Department of Environment, Great Lakes, and Energy

_____
Scott Miller, Jackson District Supervisor

TABLE OF CONTENTS

AUTHORITY AND ENFORCEABILITY

For the purpose of this permit, the **permittee** is defined as any person who owns or operates an emission unit at a stationary source for which this permit has been issued. The **department** is defined in Rule 104(d) as the Director of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) or his or her designee.

The permittee shall comply with all specific details in the permit terms and conditions and the cited underlying applicable requirements. All terms and conditions in this ROP are both federally enforceable and state enforceable unless otherwise footnoted. Certain terms and conditions are applicable to most stationary sources for which an ROP has been issued. These general conditions are included in Part A of this ROP. Other terms and conditions may apply to a specific emission unit, several emission units which are represented as a flexible group, or the entire stationary source which is represented as a Source-Wide group. Special conditions are identified in Parts B, C, D and/or the appendices.

In accordance with Rule 213(2)(a), all underlying applicable requirements are identified for each ROP term or condition. All terms and conditions that are included in a PTI are streamlined, subsumed and/or is state-only enforceable will be noted as such.

In accordance with Section 5507 of Act 451, the permittee has included in the ROP application a compliance certification, a schedule of compliance, and a compliance plan. For applicable requirements with which the source is in compliance, the source will continue to comply with these requirements. For applicable requirements with which the source is not in compliance, the source will comply with the detailed schedule of compliance requirements that are incorporated as an appendix in this ROP. Furthermore, for any applicable requirements effective after the date of issuance of this ROP, the stationary source will meet the requirements on a timely basis, unless the underlying applicable requirement requires a more detailed schedule of compliance.

Issuance of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

Section 1 – Adrian Landfill, Inc.

A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**

- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**

- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**

2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**

3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**

4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities: **(R 336.1213(1)(d))**
   a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
   c. Inspect, at reasonable times, any of the following:
      i. Any stationary source.
      ii. Any emission unit.
      iii. Any equipment, including monitoring and air pollution control equipment.
      iv. Any work practices or operations regulated or required under the ROP.
   d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.

5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the

Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**

7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**

8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2).[2] **(R 336.1370)**

10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

Emission Limits

11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in Subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following:"[2] **(R 336.1301(1))**
    a. A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
    b. A limit specified by an applicable federal new source performance standard.

    The grading of visible emissions shall be determined in accordance with Rule 303.

12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
    a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.[1] **(R 336.1901(a))**
    b. Unreasonable interference with the comfortable enjoyment of life and property.[1] **(R 336.1901(b))**

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).[2] **(R 336.2001)**

14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**

15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate. **(R 336.1213(3)(b))**
    a. The date, location, time, and method of sampling or measurements.
    b. The dates the analyses of the samples were performed.
    c. The company or entity that performed the analyses of the samples.
    d. The analytical techniques or methods used.
    e. The results of the analyses.
    f. The related process operating conditions or parameters that existed at the time of sampling or measurement.

17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**

19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**

20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**

21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
    a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
    b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
    c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: **(R 336.1213(3)(c))**
    a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
    b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that; "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete." The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.

23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**

24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**

25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.[2] **(R 336.1912)**

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
    a. The applicable requirements are included and are specifically identified in the ROP.
    b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

    Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
    a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
    b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**

c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**

28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
    a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
    b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
    c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
    d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
    e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**

29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**

31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**

32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(10))**

33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
    a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
    c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**

d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(9))**

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.

37. If the permittee is subject to 40 CFR Part 82 and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).

39. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates as provided in 40 CFR 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
    c. The date on which a regulated substance is first present above a threshold quantity in a process.

40. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.

41. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR Part 68)**

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan’s State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

Permit to Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.[2] **(R 336.1201(1))**

44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.[2] **(R 336.1201(8), Section 5510 of Act 451)**

45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.[2] **(R 336.1219)**

46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.[2] **(R 336.1201(4))**

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

C. EMISSION UNIT SPECIAL CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EULANDFILL-1	This emission unit represents the general Municipal Solid Waste (MSW) Landfill in which the collected landfill gas is sent primarily to a treatment system.	01-01-1962 06-01-1999	FGLANDFILL-OOO-1 FGLANDFILL-AAAA-1
EUACTIVECOLL-1	This emission unit represents the active landfill gas collection system at the landfill that uses gas mover equipment to draw landfill gas from the wells and moves the gas to the control equipment.	Various	FGLANDFILL-OOO-1 FGLANDFILL-AAAA-1 FGACTIVECOLL-OOO-1 FGACTIVECOLL-AAAA-1
EUOPENFLARE-1	A non-assisted open combustor without an enclosure or shroud.	10-13-2006	FGLANDFILL-OOO-1 FGLANDFILL-AAAA-1 FGOPENFLARE-OOO-1 FGOPENFLARE-AAAA-1
EUASBESTOS-1	Any active or inactive asbestos disposal site.	NA	FGLANDFILL-OOO-1 FGLANDFILL-AAAA-1
EUAIRSTRIPPER-1	Purge water treatment system using an air stripper. The air stripper treats groundwater extracted at the closed portion of the landfill to remove volatile organic compounds. The aeration “spray” chamber consists of an 8-foot diameter and 30-foot long fractionation tank, ten spray nozzles and fan. Air flow is about 186 cubic feet per minute.	02-01-1991 02-15-1991	NA
EUCOLDCLEANERS-1	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	Various	FGCOLDCLEANER-1

EUASBESTOS-1
EMISSION UNIT CONDITIONS

DESCRIPTION

Any active or inactive asbestos disposal site.

Flexible Group ID: FGLANDFILL-OOO-1, FGLANDFILL-AAAA-1

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. If the landfill accepts asbestos-containing waste materials from a source covered under 40 CFR 61.149, 40 CFR 61.150, or 40 CFR 61.155, the permittee shall meet the following operational requirements: **(40 CFR 61.154)**
   a. Either there must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or the requirements of 40 CFR 61.154(c) or (d) must be met. **(40 CFR 61.154(a))**
   b. Unless a natural barrier adequately deters access by the general public, either warning signs and fencing must be installed and maintained as follows, or the requirements of 40 CFR 61.154(c)(1) must be met. **(40 CFR 61.154(b))**
      i. Warning signs must be displayed at all entrances and at intervals of 100 m (330 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited. **(40 CFR 61.154(b)(1))**

         The warning signs must:

         (1) Be posted in such a manner and location that a person can easily read the legend. **(40 CFR 61.154(b)(1)(i))**

         (2) Conform to the requirements of 51 cm by 36 cm (20 inches by 14 inches) upright format signs specified in 29 CFR 1910.145(d)(4) and 40 CFR 61.154(b)(1). **(40 CFR 61.154(b)(1)(ii))**

         (3) The permittee shall display the legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in 40 CFR 61.154(b)(1). Spacing between any two lines must be at least equal to the height of the upper of the two lines. **(40 CFR 61.154(b)(1)(iii))**

      ii. The perimeter of the disposal site must be fenced in a manner adequate to deter access by the general public. **(40 CFR 61.154(b)(2))**

iii. Upon request and supply of appropriate information, the appropriate AQD District Supervisor will determine whether a fence or a natural barrier adequately deters access by the general public. **(40 CFR 61.154(b)(3))**

c. Rather than meet the no visible emission requirement of 40 CFR 61.154(a), at the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall: **(40 CFR 61.154(c))**

i. Be covered with at least 15 centimeters (6 inches) of compacted non-asbestos-containing material, or **(40 CFR 61.154(c)(1))**

ii. Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the appropriate AQD District Supervisor. For purposes of 40 CFR 61.154(c)(2), any used, spent, or other waste oil is not considered a dust suppression agent. **(40 CFR 61.154(c)(2))**

d. Rather than meet the no visible emission requirement of 40 CFR 61.154(a), use an alternative emissions control method that has received prior written approval by the appropriate AQD District Supervisor according to the procedures described in 40 CFR 61.149(c)(2). **(40 CFR 61.154(d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The placement of gas collection devices determined in paragraph 40 CFR 62.16728(a)(1) shall control all gas producing areas, except as provided by 40 CFR 62.16728(a)(3)(i) and (a)(3)(ii). **(40 CFR 62.16728 (a)(3))**

a. Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under 40 CFR 62.16726(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area and shall be provided to the AQD upon request. **(40 CFR 62.16728(a)(3)(i))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. For all asbestos-containing waste material received, the permittee of the active waste disposal site shall:

a. Maintain waste shipment records that include the following information: **(40 CFR 61.154(e)(1))**

i. The name, address, and telephone number of the waste generator. **(40 CFR 61.154(e)(1)(i))**

ii. The name, address, and telephone number of the transporter(s). **(40 CFR 61.154(e)(1)(ii)**

iii. The quantity of the asbestos-containing waste material in cubic meters (cubic yards). **(40 CFR 61.154(e)(1)(iii))**

iv. The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the local, State, or USEPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or USEPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the

presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report. **(40 CFR 61.154(e)(1)(iv))**

v. The date of the receipt. **(40 CFR 61.154(e)(1)(v))**

b. As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator. **(40 CFR 61.154(e)(2))**

c. Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the local, State, or USEPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record). **(40 CFR 61.154(e)(3))**

2. The permittee shall maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area storage. **(40 CFR 61.154(f))**

3. The permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in 40 CFR 62.16728(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in 40 CFR 62.16728(a)(3)(ii). **(40 CFR 62.16726(d)(2))**

4. The permittee shall keep records of one of the following regarding any active disposal site where asbestos containing materials have been deposited: **(R 336.1213(3))**

a. USEPA Test Method 22 readings demonstrating no visible emissions from any active disposal site where asbestos containing materials have been deposited. These readings are to be taken for 15 minutes each operating day.

b. Records of the date asbestos waste is received, the amount and type of material that has been used to cover the asbestos waste, and documentation that the cover material was applied in the frequency required in SC III.1.c of this table.

c. Records pursuant to an alternative emissions control method that has prior written approval of the AQD District Supervisor as noted in SC III.1.d of this table.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall submit to the appropriate AQD District Supervisor, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities. **(40 CFR 61.154(h))**

5. The permittee shall furnish upon request and make available during normal business hours for inspection by the AQD, all records required by 40 CFR Part 61. **(40 CFR 61.154(i))**

6. Notify the AQD Technical Programs Unit and appropriate AQD District Office in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the appropriate AQD District Office at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. **(40 CFR 61.154(j))**

   Include the following information in the notice:

   a. Scheduled starting and completion dates. **(40 CFR 61.154(j)(1))**

   b. Reason for disturbing the waste. **(40 CFR 61.154(j)(2))**

   c. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the AQD may require changes in the emission control procedures to be used. **(40 CFR 61.154(j)(3))**

   d. Location of any temporary storage site and the final disposal site. **(40 CFR 61.154(j)(4))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

EUAIRSTRIPPER-1
EMISSION UNIT CONDITIONS

DESCRIPTION

Purge water treatment system using an air stripper. The air stripper treats groundwater extracted at the closed portion of the landfill to remove volatile organic compounds. The aeration "spray" chamber consists of an 8 foot diameter and 30 foot long fractionation tank, ten spray nozzles and fan. Air flow is about 186 cubic feet per minute.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	0.005 pph[2]	Semiannual influent and effluent water sample testing and weekly water flow rate monitoring according to protocol agreed upon by AQD.	EUAIRSTRIPPER-1	SC V.1 – VI.3	**R 336.1702(a)**
2. VOC	0.003 tpy[2]	Based on a 12-month rolling time period as determined at the end of each calendar month.	EUAIRSTRIPPER-1	SC VI. 1 - VI.4	**R 336.1702(a)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. There shall be no visible emissions from the purge water treatment system using an air stripper.[2] **(R 336.1301(1)(c))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Upon request from the AQD, the permittee shall verify VOC emission rates from EUAIRSTRIPPER-1 by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office.

The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall monitor and record the actual flow rate at least once each calendar week.[2] **(R 336.1702(a))**

2. The permittee shall monitor and record the total volatile organic compound concentrations of the influent and effluent streams of the air stripper at least once every six calendar months.[2] **(R 336.1702(a))**

3. The permittee shall calculate and record the volatile organic compound emission rate for each six month period using actual flow rate data and actual volatile organic compound concentration data.[2] **(R 336.1702(a))**

4. The permittee shall calculate, in a satisfactory manner, the mass VOC emission rate in tons on a monthly and 12-month rolling time period as determined at the end of each calendar month. **(R 336.1213(3))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVAIRSTRIPPER	3[2]	4[2]	**R 336.1201(3)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

D. FLEXIBLE GROUP SPECIAL CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGLANDFILL-OOO-1	This flexible group represents the general MSW landfill with a required collection and control system. This flexible group contains 40 CFR Part 62, Subpart OOO requirements.	EULANDFILL-1 EUACTIVECOLL-1 EUOPENFLARE-1 EUASBESTOS-1
FGLANDFILL-AAAA-1	This flexible group represents the general MSW landfill with a required collection and control system. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.	EULANDFILL-1 EUACTIVECOLL-1 EUOPENFLARE-1 EUASBESTOS-1
FGACTIVECOLL-OOO-1	This flexible group represents the active landfill gas collection system that uses gas mover equipment to draw landfill gas from the wells and moves the gas to the control equipment. This flexible group contains 40 CFR Part 62, Subpart OOO requirements.	EUACTIVECOLL-1
FGACTIVECOLL-AAAA-1	This flexible group represents the active landfill gas collection system that uses gas mover equipment to draw landfill gas from the wells and moves the gas to the control equipment. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.	EUACTIVECOLL-1
FGOPENFLARE-OOO-1	Open (non-enclosed) flare is an open combustor without enclosure or shroud. This flexible group contains 40 CFR Part 62, Subpart OOO requirements.	EUOPENFLARE-1
FGOPENFLARE-AAAA-1	Open (non-enclosed) flare is an open combustor without enclosure or shroud. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.	EUOPENFLARE-1
FGCOLDCLEANERS-1	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	EUCOLDCLEANERS-1

FGLANDFILL-OOO-1
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group represents the general MSW landfill with a required collection and control system. This flexible group contains 40 CFR Part 62, Subpart OOO requirements.

Emission Units: EULANDFILL-1, EUACTIVECOLL-1, EUOPENFLARE-1, EUASBESTOS-1

POLLUTION CONTROL EQUIPMENT

Landfill gas is routed to a treatment system and gas-to-energy plant. Any untreated landfill gas is routed to an on-site open flare (FGOPENFLARE-AAAA-1).

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee must install a collection and control system that captures the landfill gas generated within the landfill according to the requirements in 40 CFR 62.16714(b) and 40 CFR 62.16714(c). **(40 CFR 62.16714(a)(3))**

2. The permittee must route all the collected landfill gas to at least one of the following:

   a. A non-enclosed flare designed in accordance with 40 CFR 60.18 except as noted in 40 CFR 62.16722(d). **(40 CFR 62.16714(c)(1))**

   b. A control system designed and operated to reduce NMOC by 98 weight percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 ppmv on dry basis, as hexane at 3% oxygen. **(40 CFR 62.16714(c)(2))**

   c. To a treatment system that processes the collected gas for subsequent sale or beneficial use. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to either 40 CFR 62.16714(c)(1) or (2). **(40 CFR 62.16714(c)(3))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered 40 CFR 62.16714(e), the current amount of solid waste in place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. The permittee must keep all records on file in a format acceptable to the AQD District Supervisor and make them available upon request. **(R 336.1213(3), 40 CFR 62.16726(a))**

2. Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of "design capacity", must keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. **(40 CFR 62.16726(f))**

3. If reporting leachate or other liquids addition under 40 CFR 62.16724(l), the permittee must keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where leachate or liquids were applied. **(40 CFR 62.16726(j))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. If complying with the operational provisions of 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed in 40 CFR 62.16716, 40 CFR 62.16720, and 40 CFR 62.16722, the permittee must follow the semi-annual reporting requirements in 40 CFR 63.1981(h) in lieu of 40 CFR 62.16724(h). **(40 CFR 62.16724(h))**

5. The permittee must submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment. **(40 CFR 62.16724(g))**

    a. The equipment removal report must contain all of the following items:

        i. A copy of the closure report submitted in accordance with 40 CFR 62.16724(f). **(40 CFR 62.16724(g)(1)(i))**

        ii. Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 34 megagrams or greater of NMOC per year. **(40 CFR 62.16724(g)(1)(iii))**

        iii. A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired. **(40 CFR 62.16724(g)(1)(ii))**

    b. The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in 40 CFR 62.16714(f) have been met. **(40 CFR 62.16724(g)(2))**

6. The permittee must submit a closure report to the appropriate AQD District Office within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that

permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4). **(40 CFR 62.16724(f))**

7. The permittee must submit reports electronically according to the following:

   a. Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8), the permittee must submit the results of each performance test. For data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert), submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI). The CEDRI can be accessed through the USEPA's CDX (https://cdx.epa.gov/). Performance test data must be submitted in a file format generated through the use of the USEPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website, once the XML schema is available. **(40 CFR 62.16724(j)(1)(i))**

   b. For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website at the time of the test, submit the results of the performance test to the Administrator at the appropriate address listed in 40 CFR 60.4. **(40 CFR 62.16724(j)(1)(ii))**

   c. Each permittee must submit reports to the USEPA via CEDRI (CEDRI can be accessed through the USEPA's CDX). The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/chief). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the permittee must submit the report to the USEPA at the appropriate address listed in 40 CFR 60.4. Once the form has been available in CEDRI for 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. **(40 CFR 62.16724(j)(2))**

8. The permittee shall submit any performance test reports and all other reports required by 40 CFR Part 62, Subpart OOO to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENTS

1. If the permittee has submitted a design plan under 40 CFR 62.16724(d), the permittee must submit a revised design plan to the Administrator for approval as follows:

   a. At least 90 days before expanding operations to an area not covered by the previously approved design plan. **(40 CFR 62.16724(e)(1))**

   b. Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the Administrator under 40 CFR 62.16724(d). **(40 CFR 62.16724(e)(2))**

2. The collection and control system may be capped, removed, or decommissioned if the following criteria are met:

   a. The landfill is a closed landfill (as defined in 40 CFR 62.16730). A closure report must be submitted to the Administrator as provided in 40 CFR 62.16724(f). **(40 CFR 62.16714(f)(1))**

b. The collection and control system must have been in operation a minimum of 15 years, or the landfill owner or operator demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flow. **(40 CFR 62.16714(f)(2))**

c. Following the procedures specified in 40 CFR 62.16718(b), the calculated NMOC emission rate at the landfill is less than 34 Mg per year on three successive test dates. The test dates must be no less than 90 days apart, and no more than 180 days apart. **(40 CFR 62.16714(f)(3))**

3. The permittee must comply with all applicable provisions of the Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 as specified in 40 CFR Part 62, Subpart OOO. Each permittee must comply with the provisions for the operational standards in 40 CFR 63.1958 (as well as the provisions in 40 CFR 63.1960 and 40 CFR 63.1961), for an MSW landfill with a gas collection and control system used to comply with the provisions of 40 CFR 62.16714(b) and (c). Once the permittee begins to comply with the provisions of 40 CFR 63.1958, 40 CFR 63.1960 and 40 CFR 63.1961, the permittee must continue to operate the collection and control device according to those provisions and cannot return to the provisions of 40 CFR 62.16716, 40 CFR 62.16720 and 40 CFR 62.16722. **(40 CFR 62.16716, 40 CFR 62.16720, 40 CFR 62.16722, 40 CFR Part 62, Subpart OOO)**

FGLANDFILL-AAAA-1
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group represents the general MSW landfill with a required collection and control system. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.

Emission Units: EULANDFILL-1, EUACTIVECOLL-1, EUOPENFLARE-1, EUASBESTOS-1

POLLUTION CONTROL EQUIPMENT

Landfill gas is routed to a treatment system (FGTREATMENTSYS-AAAA-2) and gas-to-energy plant. Any untreated landfill gas is routed to an on-site open flare (FGOPENFLARE-AAAA-1).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Methane	Less than 500 ppm above background level	Calendar Quarter	Surface of Landfill	SC V.1 SC VI.1	**40 CFR 63.1958(d)(1)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.1955(c))**

2. During periods of startup, shutdown, and malfunction (SSM), the permittee must comply with the work practices specified in 40 CFR 63.1958(e)(1). **(40 CFR 63.1960(e)(2))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee must install a collection and control system that captures the landfill gas generated within the landfill according to the requirements in 40 CFR 63.1959(b)(2)(ii) and 40 CFR 63.1959(b)(2)(iii). **(40 CFR 63.1959(b)(2))**

2. The permittee must route all the collected landfill gas to at least one of the following:

   a. An open (non-enclosed) flare designed in accordance with 40 CFR 63.11(b) except as noted in 40 CFR 63.1959(e). **(40 CFR 63.1959(b)(2)(iii)(A))**

   b. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight-percent or reduce the outlet

NMOC concentration to less than 20 ppmv on dry basis, as hexane at 3% oxygen. **(40 CFR 63.1959(b)(2)(iii)(B))**

c. A treatment system that processes the collected gas for subsequent sale or beneficial use. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to either 40 CFR 63.1959(b)(2)(iii)(A) or (B). **(40 CFR 63.1959(b)(2)(iii)(C))**

V. TESTING/SAMPLING

Records must be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis. **(40 CFR 63.1960(c)(1))**

2. The permittee must conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan must be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing. **(40 CFR 63.1958(d)(1))**

   a. The permittee must conduct testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 40 CFR 63.1960(d). **(40 CFR 63.1958(d)(2)(i), 40 CFR 63.1960(c)(1))**

   b. The background concentration must be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells. **(40 CFR 63.1960(c)(2))**

   c. Surface emission monitoring must be performed in accordance with 40 CFR Part 60, Appendix A-7, Method 21, Section 8.3.1, except that the probe inlet must be placed within 5 to 10 centimeters of the ground. Monitoring must be performed during typical meteorological conditions. **(40 CFR 63.1960(c)(3))**

   d. The permittee must conduct surface testing at all cover penetrations and monitor any cover penetrations that are within an area of the landfill where waste has been placed and a gas collection system is required. **(40 CFR 63.1958(d)(2)(ii))**

   e. The permittee must determine the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. **(40 CFR 63.1958(d)(2)(iii))**

3. The permittee must document any reading of 500 ppm or more above background at any location as a monitored exceedance. As long as the following specified actions are taken, the exceedance is not a violation of the operational requirements of 40 CFR 63.1958(d). **(40 CFR 63.1960(c)(4))**

   a. The location of each monitored exceedance must be marked, and the location recorded using an instrument with an accuracy of 4 meters with coordinates in decimal degrees and five decimal places. **(40 CFR 63.1960(c)(4)(i))**

   b. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance must be made and the location must be re-monitored within 10 calendar days of detecting the exceedance. **(40 CFR 63.1960(c)(4)(ii))**

   c. If the re-monitoring of the location shows a second exceedance, additional corrective action must be taken and the location must be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in SC V.3.e must be taken, and no

further monitoring of that location is required until the action specified in SC V.3.e has been taken. **(40 CFR 63.1960(c)(4)(iii))**

d. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in 40 CFR 63.1960(c)(4)(ii) or (iii) must be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above backgrounds, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in SC V.3.c or SC V.3.e must be taken. **(40 CFR 63.1960(c)(4)(iv))**

e. For any location where monitored methane concentration equals or exceeds 500 ppm above backgrounds three times within a quarterly period, a new well or other collection device must be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Department for approval. **(40 CFR 63.1960(c)(4)(v))**

4. The permittee must comply with instrumentation specifications and procedures in 40 CFR 63.1960(d) for surface emission monitoring devices: **(40 CFR 63.1960(d))**

   a. The portable analyzer must meet the instrument specifications provided in 40 CFR Part 60, Appendix A-7, Method 21, except that "methane" must replace all references to VOC. **(40 CFR 63.1960(d)(1))**

   b. The calibration gas must be methane, diluted to a nominal concentration of 500 ppm in air. **(40 CFR 63.1960(d)(2))**

   c. To meet the performance evaluation requirements in 40 CFR Part 60, Appendix A-7, Method 21, the instrument evaluation procedures of 40 CFR Part 60, Appendix A-7, Method 21 must be used. **(40 CFR 63.1960(d)(3))**

   d. The calibration procedures provided in 40 CFR Part 60, Appendix A-7, Method 21 must be followed immediately before commencing a surface monitoring survey. **(40 CFR 63.1960(d)(4))**

5. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring. **(40 CFR 63.1961(f))**

VI. MONITORING/RECORDKEEPING

Records must be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must keep records of the surface methane monitoring including, at a minimum, the following information:

   a. The route traversed including any areas not monitored because of unsafe conditions (i.e., truck traffic, construction, active face, dangerous areas, etc.) and areas included where visual observations indicate elevated levels of landfill gas. **(40 CFR 63.1960(c)(1))**

   b. The location(s) and concentrations of the methane readings and noting any reading of 500 ppm or more above background. **(40 CFR 63.1960(c)(4))**

   c. The meteorological conditions the day of the testing including wind speed, wind direction, and temperature. **(R 336.1213(3))**

   The permittee must keep all records on file in a format acceptable to the AQD District Supervisor and make them available upon request. **(R 336.1213(3), 40 CFR 63.1960(c))**

2. The permittee must implement a program to monitor, on a monthly basis, for cover integrity and implement cover repairs as necessary. Records of the cover integrity and any cover repairs must be kept on file in a format

acceptable to the AQD District Supervisor and made available upon request. **(R 336.1213(3), 40 CFR 63.1960(c)(5))**

3. The permittee must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered 40 CFR 63.1959(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. The permittee must keep all records on file in a format acceptable to the AQD District Supervisor and make them available upon request. **(R 336.1213(3), 40 CFR 63.1983(a))**

4. If adding liquids other than leachate in a controlled fashion to the waste mass and do not comply with the bioreactor requirements in 40 CFR 63.1947, 40 CFR 63.1955(b), and 40 CFR 63.1982(a) and (b), the permittee must keep records of calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40 percent. The calculation must consider the waste mass, moisture content of the incoming waste, mass of water added to the waste including leachate recirculation and other liquids addition and precipitation, and the mass of water removed through leachate or other water losses. Moisture level sampling or mass balances calculations can be used. The permittee must document the calculations and the basis of any assumptions. Keep the record of the calculations until the permittee ceases liquids addition. **(40 CFR 63.1982(c))**

See Appendix 7-1

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report must be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report must be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee must submit reports which must be postmarked or received by the appropriate AQD District Office by March 15 for reporting period January 1 to December 31. The reports must include the location of each exceedance of the 500 ppm methane concentrations as provided in 40 CFR 63.1958(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. The reports must also include information on all deviations that occurred during the 6-month reporting period. **(40 CFR 63.1961(f), 40 CFR 63.1981(h)(5))**

5. The permittee of a controlled landfill must submit an equipment removal report to the Department 30 days prior to removal or cessation of operation of the control equipment. **(40 CFR 63.1981(g))**

   a. The equipment removal report must contain all the following items:

      i. A copy of the closure report submitted in accordance with 40 CFR 63.1981(f). **(40 CFR 63.1981(g)(1)(i)**

      ii. A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, or information that demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the USEPA's Central Data Exchange (CDX). **(40 CFR 63.1981(g)(1)(ii))**

      iii. Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 Mg or greater of NMOC per year. If the NMOC emission rate reports have been previously submitted to the USEPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the USEPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports. **(40 CFR 63.1981(g)(1)(iii))**

   b. The Department may request such additional information as may be necessary to verify that all of the conditions for removal in 40 CFR 63.1957(b) have been met. **(40 CFR 63.1981(g)(2))**

6. The permittee of a controlled landfill must submit a closure report to the Department within 30 days of waste acceptance cessation. The Department may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Department, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 63.9(b). **(40 CFR 63.1981(f))**

7. The permittee must submit reports electronically according to the following:

   a. Within 60 days after the date of completing each performance test required, submit the results of the performance test with data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert). Submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the USEPA's CDX (https://cdx.epa.gov/). The data must be submitted in a file format generated through the use of the USEPA's ERT. Alternatively, submit an electronic file consistent with the extensible markup language (XML) schema listed on the USEPA's ERT website. **(40 CFR 63.1981(l)(1)(i)**

   b. For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website, the results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the USEPA's ERT website. Submit the ERT generated package or alternative file to the USEPA via CEDRI. **(40 CFR 63.1981(l)(1)(ii)**

   c. Each permittee must submit reports to the USEPA via CEDRI. CEDRI can be accessed through the USEPA's CDX. The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/chief). Once the spreadsheet template upload/forms for the reports have been available in CEDRI for 90 days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. The NMOC emission rate reports, and semiannual reports, should be electronically reported as a spreadsheet template upload/form to CEDRI. If the reporting forms specific to this subpart are not available in CEDRI at the time that the reports are due, the permittee must submit the reports to the USEPA at the appropriate address listed in 40 CFR 63.13. **(40 CFR 63.1981(l)(2))**

8. The permittee shall submit any performance test reports and all other reports required by 40 CFR Part 63, Subpart AAAA to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENTS

1. If the permittee has submitted a design plan under 40 CFR 63.1981(d), the permittee must submit a revised design plan to the Department for approval as follows:

   a. At least 90 days before expanding operations to an area not covered by the previously approved design plan. **(40 CFR 63.1981(e)(1))**

   b. Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted under 40 CFR 63.1981(d). **(40 CFR 63.1981(e)(2))**

2. The collection and control system may be capped, removed, or decommissioned if the following criteria are met:
   a. The landfill is a closed landfill (as defined in 40 CFR 63.1990). A closure report must be submitted to the Department as provided in 40 CFR 63.1981(f). **(40 CFR 63.1957(b)(1))**
   b. The gas collection and control system has been in operation a minimum of 15 years or the permittee demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flow. **(40 CFR 63.1957(b)(2))**
   c. Following the procedures specified in 40 CFR 63.1959(c), the calculated NMOC gas produced by the landfill must be less than 50 Mg/yr on three successive test dates. The test dates must be no less than 90 days apart, and no more than 180 days apart. **(40 CFR 63.1957(b)(3))**

3. The permittee must comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills as specified in 40 CFR Part 63, Subparts A and AAAA. **(40 CFR Part 63, Subparts A and AAAA)**

FGACTIVECOLL-OOO-1
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group represents the active landfill gas collection system that uses gas mover equipment to draw landfill gas from the wells and moves the gas to the control equipment. This flexible group contains 40 CFR Part 62, Subpart OOO requirements.

Emission Units: EUACTIVECOLL-1

POLLUTION CONTROL EQUIPMENT

Landfill gas is routed to a treatment system (FGTREATMENTSYS-AAAA-2) and gas-to-energy plant. Any untreated landfill gas is routed to an on-site open flare (FGOPENFLARE-AAAA-1).

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee must install an active collection system that meets the following requirements:
   a. Designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control system equipment. **(40 CFR 62.16714(b)(2)(i))**
   b. Collects gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active; or 2 years or more if closed or at final grade. **(40 CFR 62.16714(b)(2)(ii))**
   c. Collects gas at a sufficient extraction rate. **(40 CFR 62.16714(b)(2)(iii))**
   d. Designed to minimize off-site migration of subsurface gas. **(40 CFR 62.16714(b)(2)(iv))**

2. The permittee must route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-BTU gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to either 40 CFR 62.16714(c)(1) or (2). **(40 CFR 62.16714(c)(3))**

3. The permittee must site active gas collection devices as required in 40 CFR 62.16728 and must control all gas producing areas, except as provided below.

a. Any segregated area of asbestos or non-degradable material may be excluded from collection if documented as provided under 40 CFR 62.16726(d). **(40 CFR 62.16728(a)(3)(i))**

b. Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material must be documented. A separate NMOC emissions estimate must be made for each section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section must be computed using the equation in Appendix 7-1. **(40 CFR 62.16728(a)(3)(ii))**

See Appendix 7-1

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Each permittee that chooses to comply with the provisions in 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed in 40 CFR 62.16716, 40 CFR 62.16720, and 40 CFR 62.16722, must keep records of the date upon which the permittee started complying with the provisions in 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961 and must keep records according to 40 CFR 63.1983(e)(1) through (5). **(40 CFR 62.16726(e))**

2. The permittee must keep up-to-date, readily accessible records for the life of the control equipment of the data where the permittee seeks to demonstrate compliance with 40 CFR 62.16714(b) listed as follows:

   a. The maximum expected gas generation flow rate as calculated in 40 CFR 62.16720(a)(1). **(40 CFR 62.16726(b)(1)(i))**

   b. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR 62.16728(a)(1). **(40 CFR 62.16726(b)(1)(ii))**

3. The permittee must keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector that matches the labeling on the plot map and the following up-to-date, readily accessible records. **(40 CFR 62.16726(d))**

   a. The installation date and location of all newly installed collectors as specified under 40 CFR 62.16720(b). **(40 CFR 62.16726(d)(1))**

   b. Documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in 40 CFR 62.16728(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in 40 CFR 62.16728(a)(3)(ii). **(40 CFR 62.16726(d)(2))**

4. The permittee must maintain the following information:

   a. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion. **(40 CFR 62.16724(i)(1))**

   b. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based. **(40 CFR 62.16724(i)(2))**

c. The documentation of the presence of asbestos or non-degradable material for each area from which collection wells have been excluded based on the presence of asbestos or non-degradable material. **(40 CFR 62.16724(i)(3))**

d. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area. **(40 CFR 62.16724(i)(4))**

e. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill. **(40 CFR 62.16724(i)(5))**

f. The provisions for the control of off-site migration. **(40 CFR 62.16724(i)(6))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. If complying with the operational provisions of 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed at 40 CFR 62.16716, 40 CFR 62.16720, and 40 CFR 62.16722, the permittee must follow the semi-annual reporting requirements in 40 CFR 63.1981(h) in lieu of 40 CFR 62.16724(h). **(40 CFR 62.16724(h))**

5. If complying with the operational provisions of 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed in 40 CFR 62.16716, 40 CFR 62.16720, and 40 CFR 62.16722, the permittee must follow the corrective action and the corresponding timeline reporting requirements in 40 CFR 63.1981(j) in lieu of 40 CFR 62.16724(k). **(40 CFR 62.16724(k))**

6. The permittee must submit reports electronically according to the following:

   a. Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8), the permittee must submit the results of each performance test. For data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert), submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI). The CEDRI can be accessed through the USEPA's CDX (https://cdx.epa.gov/). Performance test data must be submitted in a file format generated through the use of the USEPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website, once the XML schema is available. **(40 CFR 62.16724(j)(1)(i))**

   b. For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website at the time of the test, submit the results of the performance test to the USEPA at the appropriate address listed in 40 CFR 60.4. **(40 CFR 62.16724(j)(1)(ii))**

   c. Each permittee must submit reports to the USEPA via CEDRI (CEDRI can be accessed through the USEPA's CDX). The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/chief). If the reporting form specific to this subpart is not available in CEDRI at the time

that the report is due, the permittee must submit the report to the USEPA at the appropriate address listed in 40 CFR 60.4. Once the form has been available in CEDRI for 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. **(40 CFR 62.16724(j)(2))**

7. The permittee shall submit any performance test reports and all other reports required by 40 CFR Part 62, Subpart OOO to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENTS

1. The permittee must comply with all applicable provisions of the Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 as specified in 40 CFR Part 62, Subpart OOO. Each permittee must comply with the provisions for the operational standards in 40 CFR 63.1958 (as well as the provisions in 40 CFR 63.1960 and 40 CFR 63.1961), for an MSW landfill with a gas collection and control system used to comply with the provisions of 40 CFR 62.16714(b) and (c). Once the permittee begins to comply with the provisions of 40 CFR 63.1958, 40 CFR 63.1960 and 40 CFR 63.1961, the permittee must continue to operate the collection and control device according to those provisions and cannot return to the provisions of 40 CFR 62.16716, 40 CFR 62.16720 and 40 CFR 62.16722. **(40 CFR 62.16716, 40 CFR 62.16720, 40 CFR 62.16722, 40 CFR Part 62, Subpart OOO)**

FGACTIVECOLL-AAAA-1
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group represents the active landfill gas collection system that uses gas mover equipment to draw landfill gas from the wells and moves the gas to the control equipment. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.

Emission Unit: EUACTIVECOLL-1

POLLUTION CONTROL EQUIPMENT

Landfill gas is routed to a treatment system (FGTREATMENTSYS-AAAA-2) and gas-to-energy plant. Any untreated landfill gas is routed to an on-site open flare (FGOPENFLARE-AAAA-1).

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee must operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:
   a. 5 years or more if active; or **(40 CFR 63.1958(a)(1))**
   b. 2 years or more if closed or at final grade. **(40 CFR 63.1958(a)(2))**

2. The permittee must operate the collection system with negative pressure at each wellhead except under the following conditions:
   a. A fire or increased well temperature. **(40 CFR 63.1958(b)(1))**
   b. Use of a geo-membrane or synthetic cover. The permittee must develop acceptable pressure limits in the design plan. **(40 CFR 63.1958(b)(2))**
   c. A decommissioned well. A well may experience a static positive pressure after shut-down to accommodate for declining flows. **(40 CFR 63.1958(b)(3))**

3. The permittee must operate each interior wellhead in the collection system under the following conditions:
   a. Operate each interior wellhead in the collection system with a landfill gas temperature less than 62.8°C (145°F). **(40 CFR 63.1958(c)(1))**
   b. A higher operating temperature value may be established at a particular well. A higher operating value demonstration must be submitted to the Department for approval and must include supporting data that the elevated parameter does not cause fires nor significantly inhibit anaerobic decomposition by killing methanogens. **(40 CFR 63.1958(c)(2))**

4. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.1955(c))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee must operate the system in accordance with 40 CFR 63.1955(c) such that all collected gases are vented to a control system designed and operated in compliance with 40 CFR 63.1959(b)(2)(iii). **(40 CFR 63.1958(e)(1))**
   a. In the event the collection or control system is not operating, the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within 1 hour of the collection or control system not operating. **(40 CFR 63.1958(e)(1)(i))**
   b. Efforts by the permittee to repair the collection or control system must be initiated and completed in a manner such that downtime is kept to a minimum, and the collection and control system must be returned to operation. **(40 CFR 63.1958(e)(1)(ii))**

2. The permittee must install an active collection system that meets the following requirements:
   a. Designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment. **(40 CFR 63.1959(b)(2)(ii)(B)(1))**
   b. Each well must be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of 5 years or more if active; or 2 years or more if closed or at final grade. **(40 CFR 63.1960(b), 40 CFR 63.1959(b)(2)(ii)(B)(2))**
   c. Collects gas at a sufficient extraction rate. **(40 CFR 63.1959(b)(2)(ii)(B)(3))**
   d. Designed to minimize off-site migration of subsurface gas. **(40 CFR 63.1959(b)(2)(ii)(B)(4))**

3. The permittee must install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead. **(40 CFR 63.1961(a))**

4. The permittee must demonstrate compliance with the operational standard for temperature in 40 CFR 63.1958(c)(1) by monitoring the temperature of the landfill gas on a monthly basis as provided in 40 CFR 63.1960(a)(4). The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of USEPA Method 2 of Appendix A-1 to Part 60 of this chapter. **(40 CFR 63.1961(a)(4))**

5. The permittee must site active gas collection devices as required in 40 CFR 63.1962 and must control all gas producing areas, except as provided below.
   a. Any segregated area of asbestos or non-degradable material may be excluded from collection if documented as provided under 40 CFR 63.1983(d). **(40 CFR 63.1962(a)(3)(i))**
   b. Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material must be documented. A separate NMOC emissions estimate must be made for each section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section must be computed using the equation in Appendix 7-1. **(40 CFR 63.1962(a)(3)(ii))**

See Appendix 7-1

V. TESTING/SAMPLING

Records must be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records must be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with 40 CFR 63.1959(b)(2)(ii)(B)(3), the permittee must measure, on a monthly basis, the gauge pressure in the gas collection header at each individual well as provided in 40 CFR 63.1960(a)(3) and 40 CFR 63.1961(a)(1). Any attempted corrective measure must not cause exceedances of other operational or performance standards.

   a. If positive pressure exists, action must be initiated to correct the exceedance within five calendar days. **(40 CFR 63.1960(a)(3)(i))**

   b. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement of positive pressure, the permittee must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after positive pressure was first measured. **(40 CFR 63.1960(a)(3)(i)(A))**

   c. If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the permittee must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the positive pressure measurement. **(40 CFR 63.1960(a)(3)(i)(B))**

   d. If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the permittee must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Department as soon as practicable but no later than 75 days after the first measurement of positive pressure or above, according to 40 CFR 63.1981(j). **(40 CFR 63.1960(a)(3)(i)(C))**

2. The permittee must monitor each well monthly for temperature for the purpose of identifying whether excess air infiltration exists as provided in 40 CFR 63.1958(c)(1) and 40 CFR 63.1961(a)(4). If a well exceeds the operating parameter for temperature, the following corrective actions must be taken:

   a. Action must be initiated to correct the exceedance within 5 calendar days. Any attempted corrective measure must not cause exceedances of other operational or performance standards. **(40 CFR 63.1960(a)(4)(i))**

   b. If a landfill gas temperature less than 62.8°C (145°F) cannot be achieved within 15 calendar days of the first measurement of landfill gas temperature greater than 62.8°C (145°F), the permittee must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after a landfill gas temperature greater than 62.8°C (145°F) was first measured. **(40 CFR 63.1960(a)(4)(i)(A))**

   c. If corrective actions cannot be fully implemented within 60 days following the temperature measurement for which the root cause analysis was required, the permittee must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 62.8°C (145°F). **(40 CFR 63.1960(a)(4)(i)(B))**

   d. If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the permittee must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Department as soon as practicable but no later than 75 days after the first measurement of temperature monitoring value of 62.8°C (145°F) or above, according to 40 CFR 63.1981(h)(7) and 40 CFR 63.1981(j). **(40 CFR 63.1960(a)(4)(i)(C))**

   e. If a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7°C (170°F) and the carbon monoxide concentration measured according to the procedures in 40 CFR 63.1961(a)(5)(vi) is greater than or equal to 1,000 ppmv, the corrective action(s) for the wellhead temperature standard 62.8°C (145°F) must be completed within 15 days. **(40 CFR 63.1960(a)(4)(i)(D))**

3. The permittee must monitor, on a monthly basis, the nitrogen or oxygen concentration in the landfill gas using the procedures in 40 CFR 63.1961(a)(2)(i) or (ii). **(40 CFR 63.1961(a)(2))**

4. Unless a higher operating temperature value has been approved by the Department under this subpart or under 40 CFR Part 60, Subpart WWW; 40 CFR Part 60, Subpart XXX; or a federal plan or USEPA-approved and effective state plan that implements either 40 CFR Part 60, Subpart Cc or 40 CFR Part 60, Subpart Cf, the permittee must initiate enhanced monitoring at each well with a landfill gas temperature greater than 62.8°C (145°F) as follows:

   a. Visual observations for subsurface oxidation events (smoke, smoldering ash, damage to well) within the radius of influence of the well. **(40 CFR 63.1961(a)(5)(i))**

   b. Monitor the oxygen concentration as provided in SC VI.3. **(40 CFR 63.1961(a)(5)(ii))**

   c. Monitor the temperature of the landfill gas at the wellhead as provided in SC VI.2. **(40 CFR 63.1961(a)(5)(iii))**

   d. Monitor the landfill gas every 10 vertical feet of the well as provided in SC VI.5. **(40 CFR 63.1961(a)(5)(iv))**

   e. Monitor the methane concentration with a methane meter using USEPA Method 3C of Appendix A-6 to 40 CFR Part 60, USEPA Method 18 of Appendix A-6 to 40 CFR Part 60, or a portable gas composition analyzer to monitor the methane levels provided that the analyzer is calibrated, and the analyzer meets all quality assurance and quality control requirements for USEPA Method 3C or USEPA Method 18. **(40 CFR 63.1961(a)(5)(v))**

   f. Monitor the carbon monoxide concentrations as follows:

      i. Collect the sample from the wellhead sampling port in a passivated canister or multi-layer foil gas sampling bag (such as the Cali-5-Bond Bag) and analyze that sample using an approved USEPA Method listed in 40 CFR 60, Appendix A, or an equivalent method with a detection limit of at least 100 ppmv of carbon monoxide in high concentrations of methane; or. **(40 CFR 63.1961(a)(5)(vi)(A))**

      ii. Collect and analyze the sample from the wellhead using an approved USEPA Method listed in 40 CFR 60, Appendix A to measure carbon monoxide concentrations. **(40 CFR 63.1961(a)(5)(vi)(B))**

      iii. When sampling directly from the wellhead, sample for 5 minutes plus twice the response time of the analyzer. These values must be recorded. The five 1-minute averages are then averaged to give you the carbon monoxide reading at the wellhead. **(40 CFR 63.1961(a)(5)(vi)(C))**

      iv. When collecting samples in a passivated canister or multi-layer foil sampling bag, sample for the period of time needed to assure that enough sample is collected to provide five (5) consecutive, 1-minute samples during the analysis of the canister or bag contents, but no less than 5 minutes plus twice the response time of the analyzer. The five (5) consecutive, 1-minute averages are then averaged together to give a carbon monoxide value from the wellhead. **(40 CFR 63.1961(a)(5)(vi)(D))**

   g. The enhanced monitoring specified in SC VI.4 must begin seven calendar days after the first measurement of landfill gas temperature greater than 62.8°C (145°F). **(40 CFR 63.1961(a)(5)(vii))**

   h. The enhanced monitoring must be conducted on a weekly basis. If four consecutive weekly carbon monoxide readings are under 100 ppmv, then enhanced monitoring may be decreased to monthly. However, if carbon monoxide readings exceed 100 ppmv again, the landfill must return to weekly monitoring. **(40 CFR 63.1961(a)(5)(viii))**

   i. The enhanced monitoring specified in SC VI.4 can be stopped once a higher operating value is approved, at which time the monitoring provisions issued with the higher operating value should be followed, or once the measurement of landfill gas temperature at the wellhead is less than or equal to 62.8°C (145°F). **(40 CFR 63.1961(a)(5)(ix))**

5. For each wellhead with a measurement of landfill gas temperature greater than or equal to 73.9°C (165°F), the permittee shall annually monitor temperature of the landfill gas every 10 vertical feet of the well. This temperature

can be monitored either with a removable thermometer or using temporary or permanent thermocouples installed in the well. **(40 CFR 63.1961(a)(6))**

6. The permittee must keep, on a monthly basis, readily accessible records of the following:
   a. All collection and control system exceedances of the operational standards in 40 CFR 63.1958, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance. **(40 CFR 63.1983(e)(1))**
   b. The records of each wellhead temperature monitoring value of 62.8°C (145°F) or above. **(40 CFR 63.1983(e)(2)(i))**
   c. Each permittee required to conduct the enhanced monitoring provisions in 40 CFR 63.1961(a)(5), must also keep records of all enhanced monitoring activities. **(40 CFR 63.1983(e)(2)(ii))**
   d. The permittee must also keep a record of the email transmission when required to submit the 24-hour high temperature report in 40 CFR 63.1981(k). **(40 CFR 63.1983(e)(2)(iii))**
   e. For any root cause analysis for which corrective actions are required in 40 CFR 63.1960(a)(3)(i)(A) or (a)(4)(i)(A), keep a record of the root cause analysis conducted, including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed. **(40 CFR 63.1983(e)(3))**
   f. For any root cause analysis for which corrective actions are required in 40 CFR 63.1960(a)(3)(i)(B) or (a)(4)(i)(B), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates. **(40 CFR 63.1983(e)(4))**
   g. For any root cause analysis for which corrective actions are required in 40 CFR 63.1960(a)(3)(i)(C) or (a)(4)(i)(C), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the Department. **(40 CFR 63.1983(e)(5))**

7. The permittee must keep up-to-date, readily accessible records for the life of the control equipment of the data listed as follows:
   a. The maximum expected gas generation flow rate as calculated in 40 CFR 63.1960(a)(1). **(40 CFR 63.1983(b)(1)(i))**
   b. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR 63.1962(a)(1) and (2). **(40 CFR 63.1983(b)(1)(ii))**

8. The permittee must record the date, time, and duration of each startup and/or shutdown periods when the affected source was subject to the standard applicable to startup and shutdown. **(40 CFR 63.1983(c)(6))**

9. Where the permittee seeks to demonstrate compliance with the operational standard in 40 CFR 63.1958(e)(1), in the event that an affected unit fails to meet an applicable standard, the permittee shall record the following information:
   a. The date, time, and duration of each failure and the cause of the events (including unknown cause, if applicable). **(40 CFR 63.1983(c)(7)(i))**
   b. For each failure to meet an applicable standard; record and retain a list of the affected sources or equipment. **(40 CFR 63.1983(c)(7)(ii))**
   c. Record actions taken to minimize emissions in accordance with the general duty of 40 CFR 63.1955(c) and any corrective actions taken to return the affected unit to its normal or usual manner of operation. **(40 CFR 63.1983(c)(7)(iii))**

10. The permittee must keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector; and the installation date and location of all newly installed collectors as specified under 40 CFR 63.1960(b). **(40 CFR 63.1983(d), 40 CFR 63.1983(d)(1))**

11. The permittee must maintain the following information:

    a. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion. **(40 CFR 63.1981(i)(1))**

    b. The documentation of the presence of asbestos or non-degradable material for each area from which collection wells have been excluded based on the presence of asbestos or non-degradable material. **(40 CFR 63.1981(i)(3))**

    c. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area. **(40 CFR 63.1981(i)(4))**

    d. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill. **(40 CFR 63.1981(i)(5))**

    e. The provisions for the control of off-site migration. **(40 CFR 63.1981(i)(6))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report must be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee using an active collection system designed in accordance with 40 CFR 63.1959(b)(2)(ii) must submit to the Department semiannual reports. The semiannual reports must include the following information:

    a. Number of times the applicable parameters monitored under 40 CFR 63.1958(b), (c) and (d) were exceeded and when the gas collection and control system was not operating under 40 CFR 63.1958(e), including periods of SSM. For each instance, report the date, time, and duration of each exceedance. **(40 CFR 63.1981(h)(1))**

    b. Where the permittee seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph 40 CFR 63.1958(c), provide a statement of the wellhead operational standard for temperature and oxygen for the period covered by the report. Indicate the number of times each of those parameters monitored under 40 CFR 63.1961(a)(3) were exceeded. For each instance, report the date, time, and duration of each exceedance. **(40 CFR 63.1981(h)(1)(i))**

    c. Where the permittee seeks to demonstrate compliance with the operational standard for temperature in 40 CFR 63.1958(c)(1), provide a statement of the wellhead operational standard for temperature and oxygen for the period covered by the report. Indicate the number of times each of those parameters monitored under 40 CFR 63.1961(a)(4) were exceeded. For each instance, report the date, time, and duration of each exceedance. **(40 CFR 63.1981(h)(1)(ii))**

d. The date of installation and the location of each well or collection system expansion added pursuant to 40 CFR 63.1960(a)(3) and (a)(4), (b), and (c)(4). **(40 CFR 63.1981(h)(6))**

e. The permittee must record instances when a positive pressure occurs in efforts to avoid fire. **(40 CFR 63.1958(b)(1))**

f. Include any corrective action analysis for which corrective actions are required in 40 CFR 63.1960(a)(3)(i) or (a)(5) and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates. **(40 CFR 63.1981(h)(7))**

g. Each permittee required to conduct enhanced monitoring in 40 CFR 63.1961(a)(5) and (6) must include the results of all monitoring activities conducted during the period; **(40 CFR 63.1981(h)(8)**

i. For each monitoring point, report the date, time, and well identifier along with the value and units of measure for oxygen, temperature (wellhead and downwell), methane, and carbon monoxide. **(40 CFR 63.1981(h)(8)(i))**

ii. Include a summary trend analysis for each well subject to the enhanced monitoring requirements to chart the weekly readings over time for oxygen, wellhead temperature, methane, and weekly or monthly readings over time, as applicable for carbon monoxide. **(40 CFR 63.1981(h)(8)(ii))**

iii. Include the date, time, staff person name, and description of findings for each visual observation for subsurface oxidation event. **(40 CFR 63.1981(h)(8)(iii))**

5. The permittee must submit information regarding corrective actions as follows:

a. For corrective action that is required according to 40 CFR 63.1960(a)(3) or (a)(4) and is not completed within 60 days after the initial exceedance, submit a notification to the Department as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance. **(40 CFR 63.1981(j)(1))**

b. For corrective action that is required according to 40 CFR 63.1960(a)(3) or (4) and is expected to take longer than 120 days after the initial exceedance to complete, submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Department as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 62.8°C (145°F) or above. The Department must approve the plan for corrective action and the corresponding timeline. **(40 CFR 63.1981(j)(2))**

6. Where the permittee seeks to demonstrate compliance with the operational standard for temperature in 40 CFR 63.1958(c)(1) and a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7ºC (170ºF) and the carbon monoxide concentration measured is greater than or equal to 1,000 ppmv, report the date, time, well identifier, temperature and carbon monoxide reading via email to the Department within 24 hours of the measurement unless a higher operating temperature value has been approved by the Department for the well under this subpart or under 40 CFR Part 60, Subpart WWW; 40 CFR Part 60, Subpart XXX; or a Federal plan or USEPA approved and effective state plan that implements either 40 CFR Part 60, Subpart Cc or 40 CFR Part 60, Subpart Cf. **(40 CFR 63.1981(k))**

7. The permittee must submit reports electronically according to the following:

a. Within 60 days after the date of completing each performance test required, submit the results of the performance test with data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert). Submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the USEPA's CDX (https://cdx.epa.gov/). The data must be submitted in a file format generated through the use of the

USEPA's ERT. Alternatively, submit an electronic file consistent with the extensible markup language (XML) schema listed on the USEPA's ERT website. **(40 CFR 63.1981(l)(1)(i)**

b. For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website, the results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the USEPA's ERT website. Submit the ERT generated package or alternative file to the USEPA via CEDRI. **(40 CFR 63.1981(l)(1)(ii)**

c. Each permittee must submit reports to the USEPA via CEDRI. CEDRI can be accessed through the USEPA's CDX. The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/chief). Once the spreadsheet template upload/forms for the reports have been available in CEDRI for 90 days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. The semiannual reports should be electronically reported as a spreadsheet template upload/form to CEDRI. If the reporting forms specific to this subpart are not available in CEDRI at the time that the reports are due, the permittee must submit the reports to the USEPA at the appropriate address listed in 40 CFR 63.13. **(40 CFR 63.1981(l)(2))**

8. The permittee shall submit all monitoring activities and all other reports required by 40 CFR Part 63, Subpart AAAA to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENTS

1. Each permittee seeking to demonstrate compliance with 40 CFR 63.1959(b)(2)(ii)(B)(4) through the use of a collection system not conforming to the specifications provided in 40 CFR 63.1962 must provide information satisfactory to the Department as specified in 40 CFR 63.1981(c)(3) demonstrating that off-site migration is being controlled. **(40 CFR 63.1960(a)(5))**

2. Each permittee seeking to install a collection system that does not meet the specifications in 40 CFR 63.1962 or is seeking to monitor alternative parameters to those required by 40 CFR 63.1958 through 40 CFR 63.1961 must provide information satisfactory to the Department as provided in 40 CFR 63.1981(d)(2) and (3) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Department may specify additional appropriate monitoring procedures. **(40 CFR 63.1961(e))**

3. The permittee must comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills as specified in 40 CFR Part 63, Subparts A and AAAA. **(40 CFR Part 63, Subparts A and AAAA)**

FGOPENFLARE-OOO-1
FLEXIBLE GROUPCONDITIONS

DESCRIPTION

Open (non-enclosed) flare is an open combustor without enclosure or shroud. This flexible group contains 40 CFR Part 62, Subpart OOO requirements.

Emission Unit: EUOPENFLARE-1

POLLUTION CONTROL EQUIPMENT

Open (non-enclosed) flare

I. EMISSION LIMIT(S)

1. There must be no visible emissions from EUOPENFLARE-1 except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. **(40 CFR 60.18(c)(1))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate the flare in accordance with 40 CFR 60.18. **(40 CFR 62.16714(c)(1))**

2. The flare must be operated with a flame present at all times. **(40 CFR 60.18(c)(2))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must verify visible emissions from EUOPENFLARE-1, by testing at owner's expense, in accordance with Department requirements. Testing must be performed using an approved USEPA Method 22 listed in 40 CFR Part 60, Appendix A. No less than 30 days prior to testing, the permittee must submit a complete test plan to the AQD Technical Programs Unit and the appropriate District Office. The AQD must approve the final plan prior to testing. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and the appropriate District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, 40 CFR 60.18(f))**

2. The permittee must verify the following:

   a. The net heating value of the gas being combusted in the flare must be calculated and recorded using the equation provided in Appendix 7-1. **(40 CFR 60.18(f)(3))**

b. The exit velocity for steam-assisted, air-assisted, or non-assisted flares as determined by the methods provided in Appendix 7-1. **(40 CFR 60.18(f)(5) and (6))**

3. Within 180 days of permit issuance, the permittee must verify visible emissions, the net heating value, and exit velocity from EUOPENFLARE-1 and at a minimum, every five years from the date of the last test, thereafter. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, 40 CFR 60.18(f))**

4. The permittee must notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. **(R 336.1213(3))**

See Appendix 7-1

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must keep up-to-date, readily accessible records for the life of the control equipment of the data as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal. **(40 CFR 62.16726(b))**

2. Where the permittee seeks to demonstrate compliance with 40 CFR 62.16714(c)(1) through use of a non-enclosed flare, the flare type (*i.e.,* steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; and continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent. **(40 CFR 62.16726(b)(4))**

3. The following records for the flare must be maintained onsite:

   a. The net heating value of the gas being combusted in the flare must be calculated and recorded using the equation provided in Appendix 7-1. **(40 CFR 60.18(f)(3))**

   b. The exit velocity for steam-assisted, air-assisted, or non-assisted flares as determined by the methods specified in 40 CFR 60.18(f)(4) provided in Appendix 7-1. **(40 CFR 60.18(f)(4))**

4. Each permittee that chooses to comply with the provisions in 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed in 40 CFR 62.16716, 40 CFR 62.16720, and 40 CFR 62.16722, must keep records of the date upon which the permittee started complying with the provisions in 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961. **(40 CFR 62.16726(e))**

See Appendix 7-1

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. If complying with the operational provisions of 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed at 40 CFR 62.16716, 40 CFR 62.16720, and 40 CFR 62.16722, the permittee must follow the semi-annual reporting requirements in 40 CFR 63.1981(h) in lieu of 40 CFR 62.16724(h). **(40 CFR 62.16724(h))**

5. The permittee must submit reports electronically according to the following:

   a. Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8), the permittee must submit the results of each performance test. For data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert), submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI). The CEDRI can be accessed through the USEPA's CDX (https://cdx.epa.gov/). Performance test data must be submitted in a file format generated through the use of the USEPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website, once the XML schema is available. **(40 CFR 62.16724(j)(1)(i))**

   b. For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website at the time of the test, submit the results of the performance test to the USEPA at the appropriate address listed in 40 CFR 60.4. **(40 CFR 62.16724(j)(1)(ii))**

   c. Each permittee must submit reports to the USEPA via CEDRI (CEDRI can be accessed through the USEPA's CDX). The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/chief). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the permittee must submit the report to the USEPA at the appropriate address listed in 40 CFR 60.4. Once the form has been available in CEDRI for 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. **(40 CFR 62.16724(j)(2))**

6. The permittee shall submit any performance test reports and all other reports required by 40 CFR Part 62, Subpart OOO to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must comply with all applicable provisions of the Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction on or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 as specified in 40 CFR Part 62, Subpart OOO. Each permittee must comply with the provisions for the operational standards in 40 CFR 63.1958 (as well as the provisions in 40 CFR 63.1960 and 40 CFR 63.1961), for an MSW landfill with a gas collection and control system used to comply with the provisions of 40 CFR 62.16714(b) and (c). Once the permittee begins to comply with the provisions of 40 CFR 63.1958, 40 CFR 63.1960 and 40 CFR 63.1961, the permittee must continue to operate the collection and control device according to those provisions and cannot return to the provisions of 40 CFR 62.16716, 40 CFR 62.16720 and 40 CFR 62.16722. **(40 CFR 62.16716, 40 CFR 62.16720, 40 CFR 62.16722, 40 CFR Part 62, Subpart OOO)**

FGOPENFLARE-AAAA-1
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Open (non-enclosed) flare is an open combustor without enclosure or shroud. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.

Emission Unit: EUOPENFLARE-1

POLLUTION CONTROL EQUIPMENT

Open (non-enclosed) flare

I. EMISSION LIMIT(S)

1. There must be no visible emissions from EUOPENFLARE-1 except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. **(40 CFR 63.11(b)(4))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate EUOPENFLARE-1 at all times when the collected gas is routed to it. **(40 CFR 63.11(b)(3), 40 CFR 63.1958(f))**

2. The flare must be operated with a flame present at all times. **(40 CFR 63.11(b)(5))**

3. In the event the control system is inoperable, the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within one hour. **(40 CFR 63.1958(e)(1)(i))**

4. In the event the control system is inoperable, efforts to repair the collection system must be initiated and completed in a manner such that downtime is kept to a minimum, and the collection and control system must be returned to operation. **(40 CFR 63.1958(e)(1)(ii))**

5. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.1955(c))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee must design and operate EUOPENFLARE-1 in accordance with the parameters established in 40 CFR 63.11(b). **(40 CFR 63.1959(b)(2)(iii)(A))**

2. The permittee must install, calibrate, maintain, and operate according to the manufacturer's specifications, a heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame. **(40 CFR 63.11(b)(5), 40 CFR 63.1961(c)(1))**

3. The permittee must install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that records flow to or bypass of the flare (if applicable) at least every 15 minutes. **(40 CFR 63.1961(c)(2))**

V. TESTING/SAMPLING

Records must be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must verify visible emissions from EUOPENFLARE-1, by testing at owner's expense, in accordance with Department requirements. Testing must be performed using approved USEPA Method 22 listed in 40 CFR 60, Appendix A. No less than 30 days prior to testing, the permittee must submit a complete test plan to the AQD District Office. The AQD must approve the final plan prior to testing. The permittee must submit a complete report of the test results to the AQD District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, 40 CFR 63.11(b)(4))**

2. The permittee must verify the following:

   a. The net heating value of the gas being combusted in the flare must be calculated and recorded using the equation provided in Appendix 7-1. **(40 CFR 63.11(b)(6))**

   b. The exit velocity for steam-assisted, air-assisted, or non-assisted flares as determined by the methods provided in Appendix 7-1. **(40 CFR 63.11(b)(7) and (8))**

3. The permittee must verify visible emissions, the net heating value, and exit velocity from EUOPENFLARE-1 at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

4. The permittee must notify the AQD District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. **(R 336.1213(3))**

See Appendix 7-1

VI. MONITORING/RECORDKEEPING

Records must be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must maintain records regarding the flare type (i.e., steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 63.11. **(40 CFR 63.1983(b)(4))**

2. The permittee must keep monthly records of the operating parameters specified to be monitored in 40 CFR 63.1961(c). The records must include:

   a. Continuous records of the indication of flow and gas flow rate to the control device. **(40 CFR 63.1983(b)(4))**

   b. The indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines. **(40 CFR 63.1961(c)(2)(ii))**

   c. Continuous records of the open flare pilot flame or open flare flame monitoring, and records of all periods of operations during which the pilot flame of the flare flame is absent. **(40 CFR 63.1983(b)(4))**

See Appendix 7-1

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report must be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report must be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee must submit to the appropriate AQD District Office semiannual reports for the control system. Reports must be received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. For flares, reportable exceedances are defined under 40 CFR 63.1961(c). The reports must include the following:

   a. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow. **(40 CFR 63.1981(h)(2))**

   b. Description and duration of all periods when the control device was not operating and length of time the control device was not operating. **(40 CFR 63.1981(h)(3))**

5. The permittee must submit reports electronically according to the following:

   a. Within 60 days after the date of completing each performance test required, submit the results of the performance test with data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert). Submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the USEPA's CDX (https://cdx.epa.gov/). The data must be submitted in a file format generated through the use of the USEPA's ERT. Alternatively, submit an electronic file consistent with the extensible markup language (XML) schema listed on the USEPA's ERT website. **(40 CFR 63.1981(l)(1)(i)**

   b. For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website, the results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the USEPA's ERT website. Submit the ERT generated package or alternative file to the USEPA via CEDRI. **(40 CFR 63.1981(l)(1)(ii)**

   c. Each permittee must submit reports to the USEPA via CEDRI. CEDRI can be accessed through the USEPA's CDX. The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/chief). Once the spreadsheet template upload/forms for the reports have been available in CEDRI for 90 days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. The semiannual reports should be electronically reported as a spreadsheet template upload/form to CEDRI. If the reporting forms specific to this subpart are not available in CEDRI at the time that the reports are due, the permittee must submit the reports to the USEPA at the appropriate address listed in 40 CFR 63.13. **(40 CFR 63.1981(l)(2))**

6. The permittee shall submit any performance test reports and all other reports required by 40 CFR Part 63, Subpart AAAA to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills as specified in 40 CFR Part 63, Subparts A and AAAA. **(40 CFR Part 63, Subparts A and AAAA)**

FGCOLDCLEANERS-1
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

Emission Unit: EUCOLDCLEANERS-1

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

The permittee shall not use cleaning solvents containing more than five percent by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof. **(R 336.1213(2))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. **(R 336.1611(2)(b), R 336.1707(3)(b))**

2. The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. **(R 336.1213(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The cold cleaner must meet one of the following design requirements:
   a. The air/vapor interface of the cold cleaner is no more than ten square feet. **(R 336.1281(2)(h))**
   b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. **(R 336.1285(2)(r)(iv))**

2. The cold cleaner shall be equipped with a device for draining cleaned parts. **(R 336.1611(2)(b), R 336.1707(3)(b))**

3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. **(R 336.1611(2)(a), R 336.1707(3)(a))**

4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. **(R 336.1707(3)(a))**

5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:
   a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. **(R 336.1707(2)(a))**
   b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. **(R 336.1707(2)(b))**
   c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. **(R 336.1707(2)(c))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. For each new cold cleaner in which the solvent is heated, the solvent temperature shall be monitored and recorded at least once each calendar week during routine operating conditions. **(R 336.1213(3))**

2. The permittee shall maintain the following information on file for each cold cleaner: **(R 336.1213(3))**
   a. A serial number, model number, or other unique identifier for each cold cleaner.
   b. The date the unit was installed, manufactured or that it commenced operation.
   c. The air/vapor interface area for any unit claimed to be exempt under Rule 281(2)(h).
   d. The applicable Rule 201 exemption.
   e. The Reid vapor pressure of each solvent used.
   f. If applicable, the option chosen to comply with Rule 707(2).

3. The permittee shall maintain written operating procedures for each cold cleaner. These written procedures shall be posted in an accessible, conspicuous location near each cold cleaner. **(R 336.1611(3), R 336.1707(4))**

4. As noted in Rule 611(2)(c) and Rule 707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in non-closed containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20 percent, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis. **(R 336.1213(3), R 336.1611(2)(c), R 336.1707(3)(c))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

APPENDICES

Appendix 1-1. Acronyms and Abbreviations

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO_2e	Carbon Dioxide Equivalent
CEMS	Continuous Emission Monitoring System	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
Department/ department	Michigan Department of Environment, Great Lakes, and Energy	gr	Grains
		HAP	Hazardous Air Pollutant
EGLE	Michigan Department of Environment, Great Lakes, and Energy	Hg	Mercury
		hr	Hour
EU	Emission Unit	HP	Horsepower
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallons of Applied Coating Solids	kW	Kilowatt
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	m	Meter
HVLP	High Volume Low Pressure*	mg	Milligram
ID	Identification	mm	Millimeter
IRSL	Initial Risk Screening Level	MM	Million
ITSL	Initial Threshold Screening Level	MW	Megawatts
LAER	Lowest Achievable Emission Rate	NMOC	Non-methane Organic Compounds
MACT	Maximum Achievable Control Technology	NO_x	Oxides of Nitrogen
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	Particulate Matter equal to or less than 10 microns in diameter
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pounds per hour
		ppm	Parts per million
NSPS	New Source Performance Standards	ppmv	Parts per million by volume
NSR	New Source Review	ppmw	Parts per million by weight
PS	Performance Specification	%	Percent
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonable Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO_2	Sulfur Dioxide
SC	Special Condition	TAC	Toxic Air Contaminant
SCR	Selective Catalytic Reduction	Temp	Temperature
SNCR	Selective Non-Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TEQ	Toxicity Equivalence Quotient	µg	Microgram
USEPA/EPA	United States Environmental Protection Agency	µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
VE	Visible Emissions	yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

Appendix 2-1. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. **(R 336.1213(4)(a), R 336.1119(a)(ii))**

Appendix 3-1. Monitoring Requirements

Specific monitoring requirement procedures, methods or specifications are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 4-1. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 5-1. Testing Procedures

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 6-1. Permits to Install

The following table lists any PTIs issued, or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-N2369-2020. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-N2369-2020 is being reissued as Source-Wide PTI No. MI-PTI-N2369-2020b.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	NA	NA	NA

Appendix 7-1. Emission Calculations

A. The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced for EUACTIVECOLL-1 and EUOPENFLARE-1.

Calculation used to determine NMOC emissions from any nonproductive area

The following shall be used to determine if any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than one percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material must be documented and provided to the Administrator upon request. A separate NMOC emissions estimate must be made for each section proposed

for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section must be computed using the following equation: **(40 CFR 62.16728(a)(3)(ii)(A))**

$Q_i = 2\ k\ L_o\ M_i\ (e^{-kti})\ (C_{NMOC})\ (3.6 \times 10^{-9})$

Where:

Q_i = NMOC emission rate from the ith section, Mg per year

k = methane generation rate constant, $year^{-1}$

L_o = methane generation potential, cubic meters per Mg solid waste

M_i = mass of the degradable solid waste in the ith section, Mg

t_i = age of the solid waste in the ith section, years

C_{NMOC} = concentration of non-methane organic compounds, ppm by volume

3.6×10^{-9} = conversion factor

The values for k and C_{NMOC} determined in field testing must be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (this distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, L_o and C_{NMOC} provided in 40 CFR 62.16718 or the alternative values from 40 CFR 62.16718 must be used. The mass of non-degradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the non-degradable material is documented as provided in 40 CFR 62.16728(a)(3)(iii).

Net Heating Value of the gas being combusted in the flare:

The net heating value of the gas being combusted in the flare shall be calculated and recorded using the equation provided in 40 CFR 60.18(f)(3). **(40 CFR 60.18(f)(3))**

$$H_T = K \sum_{i=1}^{n} C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20°C;

$$K = \text{Constant}, 1.740 \times 10^{-7} \left(\frac{1}{ppm}\right) \left(\frac{g\ mole}{scm}\right) \left(\frac{MJ}{kcal}\right)$$

where the standard temperature for $\left(\frac{g\ mole}{scm}\right)$ is 20°C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946–77 or 90 (Reapproved 1994) (Incorporated by reference as specified in 40 CFR 60.17); and

H_i = Net heat of combustion of sample component i, kcal/g mole at 25°C and 760 mmHg. The heats of combustion may be determined using ASTM D2382–76 or 88 or D4809–95 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated.

Calculation for Vmax steam-assisted and non-assisted flares

The maximum permitted velocity, Vmax, for flares complying with 40 CFR 60.18(c)(4)(iii) shall be calculated and recorded using the equation provided in 40 CFR 60.18(f)(5). **(40 CFR 60.18(f)(5))**

Log_{10} (Vmax)=(H_T + 28.8)/31.7

Where:

Vmax = Maximum permitted velocity, M/sec
28.8 = Constant
31.7 = Constant
H_T = The net heating value as determined in 60.18(f)(3).

Calculation for Vmax for air-assisted flares

The maximum permitted velocity, Vmax, for air-assisted flares shall be calculated and recorded using the equation provided in 40 CFR 60.18(f)(6). **(40 CFR 60.18(f)(6))**

Vmax = 8.706 + 0.7084 (H_T)

Where:

Vmax = Maximum permitted velocity, m/sec
8.706 = Constant
0.7084 = Constant
H_T = The net heating value as determined in 60.18(f)(3).

B. The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FGACTIVECOLL-AAAA-1 and FGOPENFLARE-AAAA-1.

Calculation used to determine NMOC emissions from any nonproductive area

The following must be used to determine if any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than one percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material must be documented and provided to the Department upon request. A separate NMOC emissions estimate must be made for each section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill. **(40 CFR 63.1962(a)(3)(ii))**

The NMOC emissions from each section proposed for exclusion must be computed using Equation 7 (40 CFR 63.1962(a)(3)(ii)(A)):

$Q_i = 2\ k\ L_o\ M_i\ (e^{-kti})\ (C_{NMOC})\ (3.6 \times 10^{-9})$

Where:

Q_i = NMOC emission rate from the ith section, Mg/yr

k = methane generation rate constant, $year^1$

L_o = methane generation potential, m^3/Mg solid waste

M_i = mass of the degradable solid waste in the ith section, Mg

t_i = age of the solid waste in the ith section, years

C_{NMOC} = concentration of non-methane organic compounds, ppmv

3.6×10^{-9} = conversion factor

If the permittee is proposing to exclude, or cease gas collection and control from, nonproductive physically separated (*e.g.,* separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically separated closed area must be computed using either Equation 3 in 40 CFR 63.1959(c) or Equation 7 in 40 CFR 63.1962(a)(3)(ii)(A). **(40 CFR 63.1962(a)(3)(ii)(B))**

The values for k and C_{NMOC} determined in field testing must be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (this distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, L_o and C_{NMOC} provided in 40 CFR 63.1959(a)(1) or the alternative values from 40 CFR 63.1959(a)(5) must be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in 40 CFR 63.1962(a)(3)(i). **(40 CFR 63.1962(a)(3)(iii))**

Net Heating Value of the gas being combusted in the flare:
The permittee has the choice of adhering to the heat content specifications in 40 CFR 63.11(b)(6)(ii) (equations below), and the maximum tip velocity specifications in 40 CFR 63.11(b)(7) or (b)(8), or adhering to the requirements in 40 CFR 63.11(b)(6)(i). **(40 CFR 63.11(b)(6))**

$$H_T = K \sum_{i=1}^{n} C_i H_i$$

Where**:**

H_T = Net heating value of the sample,
MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25°C and 760 mmHg, but the standard temperature for determining the volume corresponding to one mole is 20°C;

$$K = Constant\ (1.740 \times 10^{-7}) \quad \left(\frac{1}{ppm}\right) \quad \left(\frac{g\ mole}{scm}\right) \quad \left(\frac{MJ}{kcal}\right)$$

Where the standard temperature for $\left(\frac{g\ mole}{scm}\right)$ is 20°C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946–77 or 90 (Reapproved 1994) (Incorporated by reference as specified in 40 CFR 63.14); and

H_i = Net heat of combustion of sample component i, kcal/g mole at 25°C and 760 mmHg. The heats of combustion may be determined using ASTM D2382–76 or 88 or D4809–95 (incorporated by reference as specified in 40 CFR 63.14) if published values are not available or cannot be calculated.

Calculation for Vmax steam-assisted and non-assisted flares
The maximum permitted velocity, V_{max}, for flares complying with 40 CFR 63.11(b)(7)(i) must be calculated and recorded using the equation provided in 40 CFR 63.18(b)(7)(iii). **(40 CFR 63.18(b)(7)(iii))**

$\text{Log}_{10}(V_{max}) = (H_T + 28.8)/31.7$

Where:

V_{max} = Maximum permitted velocity, M/sec
28.8 = Constant
31.7 = Constant
H_T = The net heating value as determined in 63.11(b)(6).

Calculation for Vmax for air-assisted flares

The maximum permitted velocity, V_{max}, for air-assisted flares must be calculated and recorded using the equation provided in 40 CFR 63.11(b)(8). **(40 CFR 63.11(b)(8))**

$V_{max} = 8.71 + 0.708 (H_T)$

Where:

V_{max} = Maximum permitted velocity, m/sec
8.71 = Constant
0.708 = Constant
H_T = The net heating value as determined in 63.11(b)(6)(ii).

Appendix 8-1. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use EGLE, AQD, Report Certification form (EQP 5736) and EGLE, AQD, Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

B. Other Reporting

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

Section 2 – Adrian Energy Associates, LLC

A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**

- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**

- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**

2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**

3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**

4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities: **(R 336.1213(1)(d))**
   a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
   c. Inspect, at reasonable times, any of the following:
      i. Any stationary source.
      ii. Any emission unit.
      iii. Any equipment, including monitoring and air pollution control equipment.
      iv. Any work practices or operations regulated or required under the ROP.
   d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.

5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the

Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**

7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**

8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2).[2] **(R 336.1370)**

10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

Emission Limits

11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in Subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following:"[2] **(R 336.1301(1))**
    a. A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
    b. A limit specified by an applicable federal new source performance standard.

    The grading of visible emissions shall be determined in accordance with Rule 303.

12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
    a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.[1] **(R 336.1901(a))**
    b. Unreasonable interference with the comfortable enjoyment of life and property.[1] **(R 336.1901(b))**

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).[2] **(R 336.2001)**

14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**

15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate. **(R 336.1213(3)(b))**
    a. The date, location, time, and method of sampling or measurements.
    b. The dates the analyses of the samples were performed.
    c. The company or entity that performed the analyses of the samples.
    d. The analytical techniques or methods used.
    e. The results of the analyses.
    f. The related process operating conditions or parameters that existed at the time of sampling or measurement.

17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**

19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**

20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**

21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
    a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
    b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
    c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: **(R 336.1213(3)(c))**
    a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
    b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that; "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete." The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.

23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**

24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**

25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.[2] **(R 336.1912)**

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
    a. The applicable requirements are included and are specifically identified in the ROP.
    b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

    Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
    a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
    b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**

c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**

28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
    a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
    b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
    c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
    d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
    e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**

29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**

31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**

32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(10))**

33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
    a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
    b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
    c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**

d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(9))**

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.

37. If the permittee is subject to 40 CFR Part 82 and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).

39. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates as provided in 40 CFR 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
    c. The date on which a regulated substance is first present above a threshold quantity in a process.

40. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.

41. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR Part 68)**

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan’s State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

Permit to Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.[2] **(R 336.1201(1))**

44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.[2] **(R 336.1201(8), Section 5510 of Act 451)**

45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.[2] **(R 336.1219)**

46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.[2] **(R 336.1201(4))**

Footnotes:
[1]This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).
[2]This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

C. EMISSION UNIT SPECIAL CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUICENGINE#1-2	Caterpillar Model No. G3516 Internal Combustion Engine rated for 1138 brake horsepower when fired with landfill gas, connected to an electricity generator. This emission unit, and any replacement of this unit as applicable under R 336.1285(2)(a)(vi), is for a Caterpillar G3516 internal combustion engine greater than 500hp fueled with treated landfill/digester gas to produce electricity.	12-31-1994	FGENGINES-2 FGRICEMACT-2
EUICENGINE#2-2	Caterpillar Model No. G3516 Internal Combustion Engine rated for 1138 brake horsepower when fired with landfill gas, connected to an electricity generator. This emission unit, and any replacement of this unit as applicable under R 336.1285(2)(a)(vi), is for a Caterpillar G3516 internal combustion engine greater than 500hp fueled with treated landfill/digester gas to produce electricity.	12-31-1994	FGENGINES-2 FGRICEMACT-2
EUICENGINE#3-2	Caterpillar Model No. G3516 Internal Combustion Engine rated for 1138 brake horsepower when fired with landfill gas, connected to an electricity generator. This emission unit, and any replacement of this unit as applicable under R 336.1285(2)(a)(vi), is for a Caterpillar G3516 internal combustion engine greater than 500hp fueled with treated landfill/digester gas to produce electricity.	12-31-1994	FGENGINES-2 FGRICEMACT-2

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUTREATMENTSYS-2	This emission unit treats landfill gas before it is used for subsequent use or sale. The treatment system removes particulate to at least the 10-micron level, compresses the landfill gas, and removes enough moisture to ensure good combustion of gas for subsequent use, therefore guaranteeing that the intent of the destruction of the NMOC will be maintained.	12-31-1994	FGTREATMENTSYS-OOO-2 FGTREATMENTSYS-AAAA-2

D. FLEXIBLE GROUP SPECIAL CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGENGINES-2	Reciprocating internal combustion engine(s) fueled with treated landfill/digester gas and used to produce electricity.	EUICENGINE#1-2, EUICENGINE#2-2, EUICENGINE#3-2
FGRICEMACT-2	Existing non-emergency engines greater than 500 hp fueled with landfill/digester gas, located at a major source of HAPs. Construction or reconstruction commenced on or after December 19, 2002.	EUICENGINE#1-2, EUICENGINE#2-2, EUICENGINE#3-2
FGTREATMENTSYS-OOO-2	A treatment system that filters, de-waters, and compresses landfill gas for subsequent sale or beneficial use. This flexible group contains 40 CFR Part 62, Subpart OOO requirements.	EUTREATMENTSYS-2
FGTREATMENTSYS-AAAA-2	A treatment system that filters, de-waters, and compresses landfill gas for subsequent sale or beneficial use. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.	EUTREATMENTSYS-2

FGENGINES-2
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Reciprocating internal combustion engine(s) fueled with treated landfill/digester gas and used to produce electricity. This flexible group includes the emission units below and any subsequent replacements for those units as applicable under R 336.1285(2)(a)(vi).

Emission Units: EUICENGINE#1-2, EUICENGINE#2-2, EUICENGINE#3-2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. CO	21.25 pph[2]	Hourly average on a weekly basis	FGENGINES-2	SC V.1, V.2, VI.3-VI.10	**R 336.1225, R 336.1901, 40 CFR 52.21(d)**
2. NOx	15.38 pph[2]	Hourly average on a weekly basis	FGENGINES-2	SC V.1, V.2, VI.3-VI.10	**R 336.1225, R 336.1901, 40 CFR 52.21(c) and (d)**
3VOC*	6.73 pph[2]	Hourly average on a weekly basis	FGENGINES-2	SC V.1, V.2, VI.3-VI.10	**R 336.1702(a), R 336.1225, R 336.1901**

* This VOC limit includes formaldehyde

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall submit to the AQD District Supervisor, for review and approval, a malfunction abatement/preventative maintenance plan for FGENGINES-2. After approval of the malfunction abatement/preventative maintenance plan by the AQD District Supervisor, the permittee shall not operate FGENGINES-2 unless the malfunction abatement/preventative maintenance plan, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. At a minimum the plan shall include:

   a. Identification of the equipment and, if applicable, air-cleaning device, and the supervisory personnel responsible for overseeing the inspection, maintenance, and repair.

   b. Description of the items or conditions to be inspected and frequency of the inspections or repairs.

c. Identification of the equipment and, if applicable, air-cleaning device, operating parameters that shall be monitored to detect a malfunction or failure, the normal operating range of these parameters and a description of the method of monitoring or surveillance procedures.

d. Identification of the major replacement parts that shall be maintained in inventory for quick replacement.

e. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If the plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the plan within 45 days after such an event occurs and submit the revised plan for approval to the AQD District Supervisor. Should the AQD determine the malfunction abatement/preventative maintenance plan to be inadequate, the AQD District Supervisor may request modification of the plan to address those inadequacies. **(R 336.1213(3), R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall verify NOx, CO, and VOC, emission rates from each engine in FGENGINES-2, by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved USEPA Method listed in the table below:

Pollutant	Test Method Reference
NOx	40 CFR Part 60, Appendix A
CO	40 CFR Part 60, Appendix A
VOC (Includes formaldehyde)	40 CFR Part 60, Appendix A; or Method 320 of Appendix A of 40 CFR Part 63

An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall verify the NOx, CO, and VOC emission rates from each engine in FGENGINES-2, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1213(3))**

2. The permittee shall maintain the following record for each engine in FGENGINES-2. The following information shall be recorded and kept on file at the facility:

a. Engine manufacturer;

b. Date engine was manufactured;

c. Engine model number;

d. Engine horsepower;

e. Engine serial number;

f. Engine specification sheet;

g. Date of initial startup of the engine; and

h. Date engine was removed from service at this stationary source.

All of the above information shall be stored in a format acceptable to the AQD District Supervisor. **(R 336.1231(3))**

3. The permittee shall continuously monitor and record the total landfill gas flow rate from the landfill to FGENGINES-2. The permittee shall use the recorded kilowatt hour data to calculate the average hourly landfill gas use rate for each internal combustion engine on a weekly basis.[2] **(R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 52.21(c) and (d))**

4. The permittee shall monitor and record the BTU content of the landfill gas at least once each calendar week.[2] **(R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 52.21(c) and (d))**

5. The permittee shall continuously monitor and record the electrical output, in kilowatt hours, for each internal combustion engine. The permittee shall use the recorded kilowatt hour data to calculate the average hourly horsepower output of each internal combustion engine on a weekly basis using the equation in Appendix 7-2.[2] **(R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 52.21(c) and (d))**

6. The permittee shall calculate and record the average hourly heat input for each internal combustion engine on a weekly basis, using records of LFG flow rate and weekly landfill gas BTU content readings.[2] **(R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 52.21(c) and (d))**

7. The permittee shall monitor and record the hours of operation for each internal combustion engine on a weekly basis.[2] **(R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 52.21(c) and (d))**

8. The permittee shall maintain records of all information necessary for all notifications and reports for each engine in FGENGINES-2, as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of the permit. This information shall include, but shall not be limited to the following:

   a. Compliance tests and any testing required under the special conditions of this permit.

   b. Monitoring data for the hours of operation, volumetric flow rate and landfill gas usage.

   c. Calculated amount of landfill gas combusted in each engine on a monthly and 12-month rolling basis.

   d. Hours of operation on a monthly and 12-month rolling basis.

   e. Monthly average BTU content of the landfill gas burned.

   f. Manufacturer's data, specifications, and operating and maintenance procedures.

   g. Maintenance activities conducted according to the MAP.

   h. All calculations necessary to show compliance with the limits contained in this permit.

All of the above information shall be stored in a format acceptable to the AQD District Supervisor. **(R 336.1213(3))**

9. The permittee shall calculate and record the average hourly emission rate for CO, NOx and VOC on a weekly basis for FGENGINES-2 using the equations in Appendix 7-2.[2] **(R 336.1225, R 336.1702(a), R 336.1901, 40 CFR 52.21(c) and (d))**

See Appendices 3-2 and 7-2

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVICENGINE#1	12[2]	25[2]	**R 336.1225, R 336.1901, 40 CFR 52.21(c) and (d)**
2. SVICENGINE#2	12[2]	25[2]	**R 336.1225, R 336.1901, 40 CFR 52.21(c) and (d)**
3. SVICENGINE#3	12[2]	25[2]	**R 336.1225, R 336.1901, 40 CFR 52.21(c) and (d)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and ZZZZ, as they apply to each engine in FGENGINES. **(40 CFR Part 63, Subparts A and ZZZZ)**

Footnotes:
[1] This condition is state only enforceable and was established pursuant to Rule 201(1)(b).
[2] This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

FGRICEMACT-2
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Existing non-emergency engines greater than 500 hp fueled with landfill/digester gas, located at a major source of HAPs. Construction or reconstruction commenced on or after December 19, 2002.

Emission Units: EUICENGINE#1-2, EUICENGINE#2-2, EUICENGINE#3-2

POLLUTION CONTROL EQUIPMENT

NA.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only burn treated landfill gas in FGRICEMACT-2. **(R 336.1213(2))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install and maintain a fuel meter on the engines in FGRICEMACT-2 to monitor and record the daily fuel usage and volumetric flow rate of treated landfill gas used. **(R 336.1213(3))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall submit an annual report for FGRICEMACT in accordance with Table 7 of 40 CFR Part 63, Subpart ZZZZ to the appropriate AQD District Office by no later than March 15. **(40 CFR 63.6650(b)(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, as they apply to each engine in FGRICEMACT-2. **(40 CFR Part 63, Subparts A and ZZZZ)**

FGTREATMENTSYS-OOO-2
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

A treatment system that filters, de-waters, and compresses landfill gas for subsequent sale or beneficial use. This flexible group contains 40 CFR Part 62, Subpart OOO requirements.

Emission Unit: EUTREATMENTSYS-2

POLLUTION CONTROL EQUIPMENT

Any emissions from any atmospheric vents or stacks associated with the treatment system subject to 40 CFR 62.16714(c)(1) or (2).

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate the treatment system so that any emissions from any atmospheric vents or stacks associated with the treatment system must comply with 40 CFR 62.16714(c)(1) or (2). **(40 CFR 62.16714(c)(3) and (4))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Each permittee that chooses to comply with the provisions in 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed in 40 CFR 62.16716, 40 CFR 62.16720, and 40 CFR 62.16722, must keep records of the date upon which the permittee started complying with the provisions in 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961 and must keep records according to 40 CFR 63.1983(e)(1) through (5). **(40 CFR 62.16726(e))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. If complying with the operational provisions of 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed in 40 CFR 62.16716, 40 CFR 62.16720, and 40 CFR 62.16722, the permittee must follow the semi-annual reporting requirements in 40 CFR 63.1981(h) in lieu of 40 CFR 62.16724(h). **(40 CFR 62.16724(h))**

5. The permittee must submit reports electronically according to the following:

   a. Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8), the permittee must submit the results of each performance test. For data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert), submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI). The CEDRI can be accessed through the USEPA's CDX (https://cdx.epa.gov/). Performance test data must be submitted in a file format generated through the use of the USEPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website, once the XML schema is available. **(40 CFR 62.16724(j)(1)(i))**

   b. For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website at the time of the test, submit the results of the performance test to the USEPA at the appropriate address listed in 40 CFR 60.4. **(40 CFR 62.16724(j)(1)(ii))**

   c. Each permittee must submit reports to the USEPA via CEDRI (CEDRI can be accessed through the USEPA's CDX). The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/chief). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the permittee must submit the report to the USEPA at the appropriate address listed in 40 CFR 60.4. Once the form has been available in CEDRI for 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. **(40 CFR 62.16724(j)(2))**

6. The permittee shall submit any performance test reports and all other reports required by 40 CFR Part 62, Subpart OOO to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must comply with all applicable provisions of the Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 as specified in 40 CFR Part 62, Subpart OOO. Each permittee must comply with the provisions for the operational standards in 40 CFR 63.1958 (as well as the provisions in 40 CFR 63.1960 and 40 CFR 63.1961), for an MSW landfill with a gas collection and control system used to comply with the

provisions of 40 CFR 62.16714(b) and (c). Once the permittee begins to comply with the provisions of 40 CFR 63.1958, 40 CFR 63.1960 and 40 CFR 63.1961, the permittee must continue to operate the collection and control device according to those provisions and cannot return to the provisions of 40 CFR 62.16716, 40 CFR 62.16720 and 40 CFR 62.16722. **(40 CFR 62.16716, 40 CFR 62.16720, 40 CFR 62.16722, 40 CFR Part 62, Subpart OOO)**

FGTREATMENTSYS-AAAA-2
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

A treatment system that filters, de-waters, and compresses landfill gas for subsequent sale or beneficial use. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.

Emission Unit: EUTREATMENTSYS-2

POLLUTION CONTROL EQUIPMENT

Any emissions from any atmospheric vents or stacks associated with the treatment system subject to 40 CFR 63.1959(b)(2)(iii)(A) or (B).

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate the treatment system at all times when the collected gas is routed to the treatment system. **(40 CFR 63.1958(f))**

2. The permittee must operate the treatment system so that any emissions from any atmospheric vents or stacks associated with the treatment system must comply with 40 CFR 63.1959(b)(2)(iii)(A) or (B). **(40 CFR 63.1959(b)(2)(iii)(C) and (D))**

3. The permittee must develop a site-specific treatment system monitoring plan as required in 40 CFR 63.1983(b)(5)(ii). The plan must at a minimum contain the following: **(40 CFR 63.1961(g))**

   a. Monitoring of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. **(40 CFR 63.1983(b)(5)(ii)(A))**

   b. Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas. **(40 CFR 63.1983(b)(5)(ii)(B))**

   c. Documentation of the monitoring methods and ranges, along with justification for their use. **(40 CFR 63.1983(b)(5)(ii)(C))**

   d. List of responsible staff (by job title) for data collection. **(40 CFR 63.1983(b)(5)(ii)(D))**

   e. Processes and methods used to collect the necessary data. **(40 CFR 63.1983(b)(5)(ii)(E))**

   f. Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems (CMS). **(40 CFR 63.1983(b)(5)(ii)(F))**

4. The monitoring requirements apply at all times the treatment system is operating except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. The permittee must complete monitoring system repairs in

response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. **(40 CFR 63.1961(h))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee must install and properly operate a treatment system in accordance with 40 CFR 63.1981(d)(2). **(40 CFR 63.1961(d))**

2. The permittee must install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. **(40 CFR 63.1961(g))**

V. TESTING/SAMPLING

Records must be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records must be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must keep monthly records of all treatment system operating parameters specified to be monitored according to 40 CFR 63.1961. The records must include:

   a. Continuous records of the indication of flow and gas flow rate to the treatment system. **(40 CFR 63.1983(c)(2))**

   b. The indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines. **(40 CFR 63.1983(c)(2))**

   c. Maintenance and repair of the monitoring system. **(40 CFR 63.1961(h))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report must be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report must be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee must submit to the appropriate AQD District Office semiannual reports for the landfill gas treatment system. The reports must be received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. The reports must include the following:

   a. The number of times the parameters for the treatment system under 40 CFR 63.1961(g) were exceeded. **(40 CFR 63.1981(h)(1)(iii)**

   b. Description and duration of all periods when the gas stream is diverted from the treatment system through a bypass line or the indication of bypass flow. **(40 CFR 63.1981(h)(2))**

c. Description and duration of all periods when the treatment system was not operating and length of time the treatment system was not operating. **(40 CFR 63.1981(h)(3))**

5. The permittee must submit reports electronically according to the following:

   a. Within 60 days after the date of completing each performance test required, submit the results of the performance test with data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert). Submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the USEPA's CDX (https://cdx.epa.gov/). The data must be submitted in a file format generated through the use of the USEPA's ERT. Alternatively, submit an electronic file consistent with the extensible markup language (XML) schema listed on the USEPA's ERT website. **(40 CFR 63.1981(l)(1)(i)**

   b. For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website, the results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the USEPA's ERT website. Submit the ERT generated package or alternative file to the USEPA via CEDRI. **(40 CFR 63.1981(l)(1)(ii)**

   c. Each permittee must submit reports to the USEPA via CEDRI. CEDRI can be accessed through the USEPA's CDX. The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/chief). Once the spreadsheet template upload/forms for the reports have been available in CEDRI for 90 days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. The semiannual reports should be electronically reported as a spreadsheet template upload/form to CEDRI. If the reporting forms specific to this subpart are not available in CEDRI at the time that the reports are due, the permittee must submit the reports to the USEPA at the appropriate address listed in 40 CFR 63.13. **(40 CFR 63.1981(l)(2))**

6. The permittee shall submit any performance test reports and all other reports required by 40 CFR Part 63, Subpart AAAA to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills as specified in 40 CFR Part 63, Subparts A and AAAA. **(40 CFR Part 63, Subparts A and AAAA)**

2. The permittee shall have implemented a written Preventative Maintenance Plan (PMP) for EUTREATMENTSYS-2. At a minimum, the plan shall include a schedule of maintenance activities consistent with manufacturer's recommendations, and the operating variables that will be monitored to detect a malfunction or failure. A copy of the PMP shall be maintained on site and available upon request. If the plan is revised, it shall be submitted to the AQD District Supervisor for review and approval. **(R 336.1213(3), R 336.1911)**

See Appendix 9-2

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

APPENDICES

Appendix 1-2. Acronyms and Abbreviations

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO_2e	Carbon Dioxide Equivalent
CEMS	Continuous Emission Monitoring System	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
Department/ department	Michigan Department of Environment, Great Lakes, and Energy	gr	Grains
		HAP	Hazardous Air Pollutant
EGLE	Michigan Department of Environment, Great Lakes, and Energy	Hg	Mercury
		hr	Hour
EU	Emission Unit	HP	Horsepower
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallons of Applied Coating Solids	kW	Kilowatt
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	m	Meter
HVLP	High Volume Low Pressure*	mg	Milligram
ID	Identification	mm	Millimeter
IRSL	Initial Risk Screening Level	MM	Million
ITSL	Initial Threshold Screening Level	MW	Megawatts
LAER	Lowest Achievable Emission Rate	NMOC	Non-methane Organic Compounds
MACT	Maximum Achievable Control Technology	NO_x	Oxides of Nitrogen
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	Particulate Matter equal to or less than 10 microns in diameter
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pounds per hour
		ppm	Parts per million
NSPS	New Source Performance Standards	ppmv	Parts per million by volume
NSR	New Source Review	ppmw	Parts per million by weight
PS	Performance Specification	%	Percent
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonable Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO_2	Sulfur Dioxide
SC	Special Condition	TAC	Toxic Air Contaminant
SCR	Selective Catalytic Reduction	Temp	Temperature
SNCR	Selective Non-Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TEQ	Toxicity Equivalence Quotient	µg	Microgram
USEPA/EPA	United States Environmental Protection Agency	µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
VE	Visible Emissions	yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

Appendix 2-2. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. **(R 336.1213(4)(a), R 336.1119(a)(ii))**

Appendix 3-2. Monitoring Requirements

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in FGENGINES-2.

The permittee shall implement and maintain a recordkeeping and equipment monitoring program. The Adrian Energy Associates program referred to as "*ROP Recordkeeping and Equipment Monitoring Plan"* shall contain the internal standard work instructions and monitoring procedures the permittee shall use to monitor and record operating parameters and usage rates for each EUICENGINE.

An acceptable "*ROP Recordkeeping and Equipment Monitoring Plan"* Version 1.3 last revised February 21, 2019 was submitted to the AQD Jackson District Supervisor. Any modifications to the plan shall be subject to the agreement of both the AQD District Supervisor and the permittee. Records in support of the activities required by the program shall be maintained. These records shall be made available upon inspection of the facility, or as otherwise requested by AQD.

Appendix 4-2. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 5-2. Testing Procedures

There are no specific testing requirement plans or procedures for this ROP. Therefore, this appendix is not applicable.

Appendix 6-2. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-N2369-2014. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-N2369-2014 is being reissued as Source-Wide PTI No. MI-PTI-N2369-2020b.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	NA	NA	NA

The following table lists the ROP amendments or modifications issued after the effective date of ROP No. MI-ROP-N2369-2020b.

Permit to Install Number	ROP Revision Application Number - Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	202200203 / January 20, 2023	Remove SC VI.8 and VI.9 in FGENGINES-2 of Section 2 in the ROP. These two Conditions theoretically were supposed to provide a means of demonstrating ongoing compliance with the NOx emission limit. It has been determined that measurement of the temperature of the air/fuel mixture at the aftercooler is not a good indicator of compliance with the NOx emission limit. A new Condition, SC VI.8, was added to replace the Conditions removed. The new Condition added is consistent with the monitoring and recordkeeping requirements in similar ROPs.	FGENGINES-2

Appendix 7-2. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FGENGINES-2.

Carbon Monoxide (CO), Nitrogen Oxide (NOx), and Volatile Organic Compound (VOC):

The permittee shall calculate emissions using the emission factors and equations listed below or an alternative method approved by the District Supervisor. The emission factors shall be established and updated through stack testing and approved by the District Supervisor.

Internal Combustion Engine horsepower (EUICENGINE HP) = Generator output (kW) / (0.746kW/HP * 0.939)

Pounds per hour (lb/Hr) = EUICENGINE HP * lb/454g * X g/HP*Hr, where X is a factor from table below.

Landfill Gas Usage per Engine Calculation

LFG used by engine = (total LFG metered) * (kWh engine)/ (total kWh all engines)

Avg. LFG flow rate = (LFG used by engine)/ (operating hours of engine)

Appendix 8-2. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the EGLE, AQD, Report Certification form (EQP 5736) and EGLE, AQD, Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

B. Other Reporting

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

Appendix 9-2. Gas Treatment System Preventative Maintenance Plan

The permittee shall implement the Preventative Maintenance Plan (PMP) required for EUTREATMENTSYS-2 (FGTREATMENTSYS-AAAA-2, SC IX.2). An acceptable PMP Version 2.1 last reviewed February 2019, was submitted to the AQD Jackson District Supervisor. The PMP and its associated recordkeeping format have been approved by the AQD through approval of this ROP. Any modifications to the plan shall be submitted to the AQD District Supervisor for approval and are subject to review by the AQD. Records in support of the activities required by the plan shall be maintained. These records shall be made available upon inspection of the facility, or as otherwise requested by the AQD.

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

	SRN: P0426	Section Number (if applicable):

1. Additional Information ID
AI-PTE-CALCS

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

The following calculations provide potential to emit (PTE) emission cacluations for criteria air pollutants and hazardous air pollutants (HAPs) for the existing Adrian Energy Associates, LLC emission units.

Adrian Energy Associates, LLC PTE Calculations

Potential Emissions Summary for FGENGINES
Three (3) CAT® G3516 Engines

Maximum annual operating hours	8,760	hrs
Engine horsepower (design at full load)	1,138	hp
Calculated annual bhp-hr:	9,968,880	bhp-hr
Engine heat input (design at full load)	9.065	MMBtu/hr
Minimum LFG heat value (estimated):	475	Btu/scf (LHV)
Maximum heat input for year	79,409	MMBtu/yr
Maximum LFG throughput:	318	scfm
Maximum LFG throughput:	167	MMscf/yr

Pollutant		LFG Combustion Emission Rates (g/bhp-hr)	(lb/hr)	(lb/MMscf)	(lb/MMBtu)	Annual Emissions Per Engine (lb/yr)	(TpY)	Total Three Engines (TpY)
CO	(permit limit)	--	7.08	--	--	62,050	31.0	93.1
NOx	(permit limit)	--	5.13	--	--	44,910	22.5	67.4
NMOC/VOC	(permit limit)	--	2.24	--	--	19,652	9.8	29.5
SO_2	(MAERS emission factor)	--	--	7.80	--	1,304	0.65	2.0
$PM_{10}/PM_{2.5}$	(test results for similar units)	0.12	--	--	--	2,637	1.32	4.0
LFG HAPs	(AP42: see attached table)	--	--	3.21	--	537	0.27	0.8
HCl	(similar ROP requirement)	--	--	5.10	--	853	0.43	1.3
HCOH	(test results from 2015 test event)	--	0.90	--	--	7,913	3.96	11.9
Total HAPs						**9,303**	**4.65**	**14.0**
GHG-CO_2	(based on 52.07 kg/MMBtu)	--		--	115		4,548	13,645
GHG-CH_4	(based on 3.2E-3 kg/MMBtu)	--		--	0.007		0.3	0.8
GHG-CO_2e	(GWP for CH_4=25)						4,555	13,666

Notes and formulas

LFG throughput (MMscf) = (Engine heat input, MMBtu/hr) (Operating hrs) / (LFG heat value, Btu/scf)
Annual emissions = (Emission factor, g/bhp-hr) (hours) (engine horsepower) / (453.6 g/lb)
Annual emissions = (Emission factor, lb/MMcf) (LFG throughput, MMcf)
NMOC/VOC emission rates do not include formaldehyde.

Adrian Energy Associates, LLC PTE Calculations

LFG Combustion Hazardous Air Pollutant Emissions for IC Engines

HAPs[1]	Landfill Gas Concentration[2] (ppmv)	(mg/m^3)	Molecular Weight	Destruction Effeciency[3] (%)	HAP Emission Factor (lb/MMcf)
1,1,1-trichloroethane	0.48	2.66	133.42	93.0%	0.012 [A]
1,1,2,2-tetrachloroethane	1.11	7.75	167.85	93.0%	0.034
1,1-dichloroethane	2.35	9.67	98.97	93.0%	0.042
1,1-dichloroethene	0.20	0.81	96.94	93.0%	0.004
1,2-dichloroethane	0.41	1.69	98.96	93.0%	0.007
1,2-dichloropropane	0.18	0.85	112.98	93.0%	0.004
Acrylonitrile	6.33	13.97	53.06	86.1%	0.121
Benzene	1.91	6.20	78.11	86.1%	0.054
Carbon disulfide	0.58	1.84	76.13	86.1%	0.016
Carbon tetrachloride	0.004	0.03	153.84	93.0%	0.000
Carbonyl sulfide	0.49	1.22	60.07	86.1%	0.011
Chlorobenzene	0.25	1.17	112.56	93.0%	0.005
Chloroethane	1.25	3.35	64.52	93.0%	0.015
Chloroform	0.03	0.15	119.39	93.0%	0.001
Dichloromethane	14.3	50.50	84.94	93.0%	0.221
Ethyl Benzene	4.61	20.35	106.16	86.1%	0.177
Hexane	6.57	23.54	86.18	86.1%	0.204
Mercury (total)	2.92E-04	0.00	200.61	0.0%	0.000
Methyl ethyl ketone	7.09	21.26	72.11	86.1%	0.185
Methyl isobutyl ketone	1.87	7.79	100.16	86.1%	0.068
Perchloroethylene	3.73	25.72	165.83	93.0%	0.112
Toluene	39.3	150.55	92.13	86.1%	1.307
Trichloroethylene	2.82	15.41	131.40	93.0%	0.067
Vinyl chloride	7.34	19.07	62.50	93.0%	0.083
Xylenes	12.1	53.41	106.16	86.1%	0.464
Total HAP emissions for LFG constituents					**3.21**

Notes

1 1990 CAA Amendments Section 112(b) HAP

2 Default concentrations from AP-42 Tables 2.4-1 and 2.4-2.

3 Default control efficiency values for IC engines from AP-42 Table 2.4-3.

A Sample calculation, 1,1,1 trichloroethane (TCE) emissions
(0.48 ft^3 TCE/MMcf LFG) (133.42 lb. TCE/mol) (1-0.93) / (385 ft^3 TCE/mol)
= 0.012 lb. TCE/MMcf LFG

EGLE

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

	SRN: N2369	Section Number (if applicable): 02

1. Additional Information ID
AI-ENGINE-MA/PMP

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

Malfunction Abatement & Preventative Maintenance Plan for Engine Nos. 1, 2, and 3 (FGENGINES)

EUICENGINE#1-2, EUICENGINE#2-2 & EUICENGINE#3-2 (FGENGINES-2)

~

MALFUNCTION ABATEMENT / PREVENTIVE MAINTENANCE PLAN

State Registration No. (SRN) N2369
Permit No. MI-ROP-N2369-2020b

Facility Address:
1900 North Ogden Highway
Adrian, MI 49221
Lenawee County

Adrian Energy Associates, LLC

1.0 Purpose

The purpose of this Malfunction Abatement/Preventative Maintenance Plan is to establish appropriate process monitoring, malfunction response and preventative maintenance procedures to maintain compliance with applicable air pollutant emission limits for the three (3) landfill gas (LFG) fueled engines that will be operated at the Adrian Energy Associates, LLC (Adrian Energy) location. This revision is being made to update corporate changes and operational employee titles. There are NO technical changes being made to this plan.

This plan has been developed in accordance with the requirements of Permit to Install No. MI-PTI-N2369-2020b, Section 2, Condition III.1. that specifies:

The permittee shall submit to the AQD District Supervisor, for review and approval, a malfunction abatement/preventative maintenance plan for FGENGINES-2. After approval of the malfunction abatement/preventative maintenance plan by the AQD District Supervisor, the permittee shall not operate FGENGINES-2 unless the malfunction abatement/preventative maintenance plan, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. At a minimum the plan shall include:

a. Identification of the equipment and, if applicable, air-cleaning device, and the supervisory personnel responsible for overseeing the inspection, maintenance, and repair.

b. Description of the items or conditions to be inspected and frequency of the inspections or repairs.

c. Identification of the equipment and, if applicable, air-cleaning device, operating parameters that shall be monitored to detect a malfunction or failure, the normal operating range of these parameters and a description of the method of monitoring or surveillance procedures.

d. Identification of the major replacement parts that shall be maintained in inventory for quick replacement.

e. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

The above requirements are also applicable with the existing ROP. A copy of the most recent Engine Malfunction Abatement/ Preventative Maintenance Plan is maintained on file at the Adrian Energy facility.

2.0 Facility and General Process Information

Adrian Energy operates three (3) Caterpillar (CAT®) 3516 reciprocating internal combustion (IC) engines that are fueled with LFG and connected to electricity generators (IC engine/generator). The emission units are identified in the permit as EUICENGINE#1-2, EUICENGINE#2-2 & EUICENGINE#3-2.

The LFG generated at the Adrian Landfill (which is the source of the fuel used by Adrian Energy) is collected using a system of wells, gas headers and blowers, which have been installed and are operated by the landfill owner. The LFG is dewatered, filtered and compressed (treated) by the landfill owner before being supplied as fuel to the IC engine/generator sets. The electricity generated is distributed to the local grid.

3.0 IC Engine/Generator Malfunction Abatement

The CAT® 3516 engine is designed to fire low-pressure, lean fuel mixtures (e.g., LFG).

The engine/generator sets are not equipped with add-on emission control devices. Therefore, the units maintain compliance with applicable air pollutant emission limits through the proper operation of the engine and efficient fuel combustion, which:

Reduces the formation of carbon monoxide (CO) and nitrogen oxide (NO_X) emissions.

Destroys methane and nonmethane organic compounds (NMOC) in the LFG fuel (nonmethane hydrocarbons may be classified as volatile organic compounds and/or hazardous air pollutants).

Malfunction Abatement for the CAT® 3516 IC engine consists of monitoring critical engine parameters to ensure proper operation. The engine is equipped with numerous sensors that monitor critical operation parameters. An Electronic Ignition System (EIS) processes the data and adjusts operating variables (ignition timing, engine speed), activate alarms to warn of an out-of-range variable or shuts down the engine.

3.1 Engine Oil / Engine Coolant Temperature

Engine oil and engine coolant conditions do not directly influence air pollutant emissions. However, maintaining proper engine oil/coolant temperature and pressure is critical to the operation of the engine and preventing early or catastrophic mechanical failure.

The engine is equipped with sensors to monitor the engine oil temperature and oil pressure. Notification alarms are activated based on out-of- range conditions (e.g., high oil temperature, low or high oil pressure). An automatic shutdown will occur if the variable exceeds a critical setpoint.

Engine coolant temperature is monitored to assure proper circulation of coolant and cooling of the engine block. Notification alarms are activated based on out-of- range conditions (high or low coolant temperature). An automatic shutdown will occur if the coolant temperature exceeds its critical setpoint temperature.

Abnormal engine operations or shutdowns are logged by the EIS. The cause of the problem is investigated and corrected by the operators and the engine is restarted.

3.2 Air / Fuel Ratio Control

Maintaining proper air/fuel ratio results in efficient fuel combustion and limits the formation of CO and NO_X. The engine is equipped with adjustable carburetor AFR screws to adjust and maintain engine emissions.

If the LFG oxygen level increases, or the methane content decreases, beyond preset values the engine automatically shuts down if the desired air/fuel mix ratio cannot be maintained to prevent excess emissions.

The cause of the excess oxygen or decreased methane is investigated (this is typically caused from landfill wellfield maintenance or adjustments) and corrected by the operators and the engines are restarted.

3.3 Weekly Inspections

The operator performs weekly visual inspections of the engines and logs the following information in a weekly log:

Coolant system level;
Engine air cleaner service indicator;
Engine oil level;
Fuel system fuel filter differential pressure; and
Generator load.

Appendix A provides a form that is used for recording observations of engine/generator set operations.

3.4 On-Call Dial-Out System

The facility is not staffed around the clock. Therefore, the EIS is connected to a dial- out system that notifies the on-call operator of any engine shutdowns and certain faults and warnings during evening/weekend/holiday hours when the facility is not staffed.

4.0 Preventative Maintenance

4.1 Maintenance Schedule

EUENGINE#1-2, EUENGINE#2-2 & EUENGINE#3-2 are maintained per the guidelines in the Caterpillar Operation and Maintenance Manual. The actual maintenance schedule is dependent on actual fuel gas conditions and observations of engine performance.

Proper maintenance of the fuel train ensures good fuel mixing and combustion, which limits CO and NO_X formation. The monitoring and regular replacement of worn engine parts (such as cylinder seals) reduces particulate matter ($PM_{10}/PM_{2.5}$) emissions (primarily engine oil).

4.2 Oil Sampling Program

When engine oil is changed per the preventative maintenance schedule (typically monthly), a sample of the oil is sent for analysis of several properties. The oil analysis results are used to determine fuel condition, the level of engine wear or parts that may need attention (inspection or replacement). Depending upon the results, the maintenance schedule may be adjusted from the manufacturer's guidelines.

4.3 Parts Inventory

Important engine and generator parts are available on-site and kept on inventory. A sample of these parts include air filters, oil filters, spark plugs, sensors, pumps, thermostats, heads, new engine oil and coolant.

5.0 Recordkeeping

The following information will be maintained to verify proper operation and maintenance of the Sumpter Energy CAT® 3516 engines and that proper procedures were implemented in response to malfunction requirements:

1. Weekly records of the equipment monitoring parameters that are presented in this document (Section 3.3 Weekly Inspections and Appendix A).

2. Equipment maintenance records for those systems that affect the operation of the engine.

3. Engine faults, alarms and shutdowns are recorded and logged by the EIS.

4. Records of process malfunctions or equipment failures if such events are different from those covered in this Plan. Particularly, if it is suspected that emission limits may have been exceeded or LFG was vented to the atmosphere from the Adrian Energy facility.

6.0 Personnel Responsibilities

The PGD Operations Specialist is responsible for operating the engines, regular inspections and monitoring (completing checklists), maintaining spare parts, and preventative maintenance as specified in this Plan. Major engine maintenance or malfunctions are reported to the PGD Operations Leader.

The PGD Operations Leader and PGD Operations Specialist will determine when revision of this Plan are necessary.

The PGD Operations Leader and PGD Operations Specialist are responsible for ensuring that this Plan is maintained on file, is accessible and kept up-to-date.

Appendix B provides a contact list for facility personnel.

7.0 Plan Revisions

Permit to Install No. MI-PTI-N2369-2020b, Section 2, Condition III.1 and MI-ROP-N2369-2020b, FGENGINES-2, Section 2, Condition III.1 specifies that:

If the plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the plan within 45 days after such an event occurs and submit the revised plan for approval to the AQD District Supervisor. Should the AQD determine the malfunction abatement/preventative maintenance plan to be inadequate, the AQD District Supervisor may request modification of the plan to address those inadequacies.

This Malfunction Abatement/Preventative Maintenance Plan will be:

1. Amended or modified if equipment or processes are added that are not covered under the Plan; or

2. Revised within 45 days of an event if the procedures described in this document do not adequately address any malfunction event that occurs at the facility.

Plan revisions will be documented using the revision history log (Appendix C) and submitted to the AQD District Supervisor as required by the Permit.

8.0 Appendices

The following documents and materials are included as part of this Malfunction Abatement/Preventative Maintenance Plan:

Appendix A: Weekly Readings Form

Appendix B: Responsible Personnel Contact List

Appendix C: Malfunction Abatement/Preventative Maintenance Plan Revision History

Adrian Energy Associates, LLC

APPENDIX A
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WEEKLY READINGS FORM

4/29/2024

Adrian Energy
Weekly Readings

NEXTera ENERGY RESOURCES

Date/Time		Ambient Temp		Operator Completing Report				
Engine Readings				**Plant Readings Control Room**				
	Unit 1	Unit 2	Unit 3	Draw "H2O		Flow Scfm		
Manifold Psi				LFG Total Kcf		Gas Press Psi		
Oil Psi @ ESCM				Parasitic load Kwh		Gas Temp F		
Oil Temp @ ESCM				Export Volt		Kwh		
Kw Load				Personal Gas Monitor		Methane Detector		
Kw				**Utility Meter Readings**				
Oil Level				Time	14	15	16	
DEQ Hours								
Engine Hours			Same	**Plant Readings Engine Room**				
Oil Filter Psid				Air Comp Psi		Oil level /		
JW Temp	/	/	/	**Gas readings**				
M/U Oil Level				CH4	CO2	O2	Co	
Vent Fan				H2s	Bal%			
CCV Draw				**Plant Readings Blower Room**				
SCAC Temp	/	/	/	Draw "HG				
Comb. Temp				Filter Tower "H2O, <2psi		Liquid Lvl		
Radiator Motor				Polishing Tower Psi, <1 psi		Liquid Lvl		
Make-Up Oil Added				**Blower, Gas cooler**				
Transformer Readings				Amps		Inlet Bearing Temp F		
Temp	Psi	Oil Lvl		Outlet Psi		Outlet Bearing Temp F		
Landfill Readings				Outlet temp		Motor		
Draw "H2O	Air Comp		Psi	**Tank Readings**				
MCC readings, Eom only				New Oil Tank "		Waste Oil Tank "		
Parasitic load (Mwh)				Condensate Tank				

Time	

Adrian Energy Associates, LLC

APPENDIX B
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RESPONSIBLE PERSONNEL CONTACT LIST

Responsible Personnel Contact List

Employee Name	Position / Title	Contact Number
David Mooney	PGD Operations Manager	(432) 385-4463
Josh Wrubel	PGD Operations Leader	(810) 689-8316
Eric Bisco	PGD Operations Specialist	(517) 301-1828
Robert Meads	PGD Sr. Gas Operations Technician	(734) 672-4933
Ed Wentling	PGD Environmental Services Manager	(215) 767-5131

Adrian Energy Associates, LLC

APPENDIX C
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MALFUNCTION ABATEMENT / PREVENTIVE MAINTENANCE PLAN REVISION HISTORY

Adrian Energy Associates, LLC

Malfunction Abatement/Preventative Maintenance Plan
Revision History

This Plan will be amended if equipment or processes are added that are not covered under the plan or will be revised within 45 days of non-conforming events if the procedures described herein do not adequately address any malfunction or start- up/shutdown events that occur at the facility. A copy of the original plan and all revisions/addendums will be kept on file at the facility for at least five (5) years.

Date of Revision	Reason For Revision
7/23/2009	Initial draft of the Malfunction Abatement/Preventative Maintenance Plan
12/7/2017	Responsible Personnel Contact List updates
04/29/2024	Referenced current ROP number, updated Appendix A – Weekly Readings Sheet, Appendix B contact list, and updated plant personnel titles. General technical / engine operations & maintenance information was not revised and is still appropriate as per the revised Plan.

EGLE

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

	SRN: N2369	Section Number (if applicable): 02

1. Additional Information ID
AI-TRMTSYS-MA/PMP

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

Malfunction Abatement & Preventative Maintenance Plan for LFG treatment system

ADRIAN ENERGY ASSOCIATES, LLC

LANDFILL GAS TREATMENT SYSTEM
MALFUNCTION ABATEMENT/PREVENTATIVE MAINTENANCE PLAN

State Registration No. (SRN) N2369
Permit No. MI-ROP-N2369-2020b

Facility Address:
1900 N. Ogden Highway
Adrian, MI 49221
Lenawee County

Adrian Energy Associates, LLC

1.0 Purpose

The purpose of the Gas Treatment System Preventative Maintenance (PMP) Monitoring and Startup, Shutdown and Malfunction (SSM) Plan that is presented in this document is to establish appropriate preventative maintenance, monitoring, operating and malfunction response procedures for the landfill gas treatment system that is operated at Adrian Energy Associates (Adrian Energy).

This plan has been developed in accordance with provisions of the Municipal Solid Waste (MSW) Landfill New Source Performance Standards (NSPS, 40 CFR Part 62, Subpart OOO) and the MSW Landfill National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 63, Subpart AAAA).

~~40 CFR §60.765(d) of the MSW Landfill NSPS specifies that if a device other than an open flare or an enclosed combustor is used as the control system for landfill gas emissions, then information is to be prepared describing the operation of the control device, the operating parameters that indicate proper performance and appropriate monitoring procedures. The MSW Landfill NESHAP requires owners of affected facilities to document standard procedures for equipment startup and shutdown and develop procedures for responding to equipment malfunctions.~~

The above regulatory requirements have been superseded by regulations in 40 CFR Part 62, Subpart OOO. In addition, the current ROP MI-ROP-N2369-2020b – Section 2, FGTREATMENTSYS-OOO-2 & FGTREATMENTSYS-AAAA-2 have been added to the permit requirements. As such, Appendix A of this Plan is Adrian Energy's Site Specific Treatment System Monitoring Plan. Note: previous SSM requirements no longer apply.

A copy of the original Gas Treatment System Preventative Maintenance, Monitoring and SSM Plan and revised Plan is kept on file at Adrian Energy for the entire length of time the facility is in operation.

2.0 Facility and General Process Information

Landfill gas generated at the Adrian Landfill (which is the source of the fuel used by Adrian Energy) is collected using a system of wells, gas headers and blowers, which have been installed and are operated by the landfill owner. Adrian Energy has a contract with the landfill owner/operator to purchase the collected landfill gas for use as fuel to power three (3) identical reciprocating internal combustion (IC) engine and electricity generator sets. The electricity that is generated by Adrian Energy is sold to a third party under a power purchase agreement for distribution to the local grid.

The landfill gas generated by the Adrian Landfill and collected by the landfill owner/operator is treated prior to being used as fuel in the Adrian Energy electricity generation processes. USEPA has issued regulatory clarifications that define treated landfill gas as "landfill gas processed in a treatment system that filters, de-waters, and compresses the gas."

The gas received from the Adrian Landfill is initially de-watered in knockout tanks that are located upstream of the Adrian Energy landfill gas treatment system where a portion of the condensate in the landfill gas is removed.

After the initial knockout tank de-watering, the landfill gas is treated in equipment and processes operated by Adrian Energy that consist of:

1. A primary filter vessel that contains a coalescing filter, which is designed to remove particles in the gas stream that are 0.3 microns and larger. Condensate collected by the coalescing filter falls to the bottom of the vessel where it is transferred by gravity to a sump that transfers the liquid back to the landfill for processing.

2. Gas blowers for compression of the de-watered landfill gas.

3. An air-to-gas cooler to reduce the temperature of the gas (which is heated by the blower during gas compression).

4. A polishing filter vessel that contains a coalescing filter, which is designed to remove particles that are 0.3 microns and larger. Condensate collected by the coalescing filter falls to the bottom of the vessel where it is immediately transferred by gravity feed to the sump that transfers the liquid back to the landfill for processing.

3.0 Gas Treatment System Monitoring and Preventative Maintenance

Based on the design of the Adrian Energy landfill gas treatment system, the following equipment and process components will be monitored daily to verify that the system is operating properly.

Knockout Chamber Condensate Accumulation: The primary and polishing filters typically operate without any noticeable condensate accumulation (no water is typically indicated to be present in the vessels). Noticeable water (condensate) accumulation is an indication that the upstream landfill gas de-watering equipment may have malfunctioned.

If condensate accumulation in the knockout vessels is greater than 50% (based on the water level indicated on chamber sight glass), the electricity generation processes will be shutdown to avoid condensate carryover to the downstream components of the gas treatment system or the electricity generation engines. An investigation of the equipment will be performed and corrective actions implemented.

Blower Discharge Pressure: The pressure at the discharge of the blower is measured with an analog pressure gauge. The landfill gas blower should be operated such that the minimum pressure observed on the discharge side of the equipment is at least two (2) pounds per square inch gauge (2 psig). Blower discharge pressures less than 2 psig are an indication of problems with the gas compression system.

If the blower discharge pressure is less than 2 psig, an investigation of the equipment will be performed and corrective actions implemented.

Coalescing Filter Differential Pressure: The pressure drop across each of the coalescing filters is monitored using an analog differential pressure gauge. Large differential pressures (dP) indicate that the filters are wet or loaded with particulate matter and should be replaced. The dP across the primary filter (vacuum side of blower) should be less than or equal to 1 pound per square inch differential (psid). The dP across the polishing filter (pressure side of blower and downstream of the gas cooler) should be less than or equal to 2 psid. If the pressure drop across the coalescing filters is greater than the specified values, the associated filter will be replaced.

The replacement filters will be of comparable design for critical air or gas service applications where high-efficiency removal of oil or water droplets and particulate solids is required. Adrian Energy uses LG Liquid and Gas Coalescing Cartridges that are rated for 50 psid and measure 30 inches in length and 70 mm in diameter. The filters are rated for particulate matter removal to 0.3 microns and the nominal filter area is approximately 9.6 sq. ft.

Air-to-Gas Cooler Outlet Temperature: The temperature of the gas (fuel) at the outlet of the air-to-gas cooler is measured with an analog temperature gauge. The air-to-gas cooler is used to reduce the temperature of the fuel (which becomes elevated during the compression process). Outlet gas temperatures greater than 120°F are an indication of problems with the operation of the air-to- gas cooler. A temperature switch will sound an alarm if the outlet gas temperatures exceeds 135°F.

If the outlet temperature of the air-to-gas cooler is greater than 120°F, an investigation of the equipment will be performed and corrective actions implemented.

Attachment A of the Appendix A Site Specific Treatment System Monitoring Plan provides an example of the form used for recording Weekly observations of gas treatment system operation parameters.

4.0 Startup Standard Operating Procedure

"Startup means the setting in operation of an affected source or portion of an affected source for any purpose." (40 CFR §63.2)

The standard operating procedure for the startup of the landfill gas treatment system is to:

1. Ensure that no unsafe conditions are present.

2. Contact, prior to startup, the Adrian Energy in charge Plant Operations Specialist.

3. Ensure that the system is ready to start by one or more of the following:

    a. Valves are positioned in their proper operating locations.
    b. Appropriate gas and fluid levels, pressures and temperatures are within the values of their normal starting range.
    c. Alarms are cleared.
    d. Power is on, and available to the control panel and to energized equipment.
    e. Emergency Stop is de-energized.

4. Initiate the proper equipment, process and system start sequences.

5. Observe that the system achieves normal operating ranges for appropriate gas and fluid levels, pressures and temperatures (see 3.0 Gas Treatment System Monitoring).

6. Refer to Operations and Maintenance Manuals as determined to be necessary.

5.0 Shutdown Standard Operating Procedures

"Shutdown means the cessation of an affected source or portion of an affected source or portion of an affected source for any purpose." (40 CFR §63.2).

The standard operating procedure for shutdown of the landfill gas treatment system is to:

1. Ensure that no unsafe conditions are present.

2. Contact, prior to shutdown, the Adrian Energy in charge Plant Operations Specialist and notify appropriate Adrian Landfill representatives that the landfill gas treatment and electricity generation processes will be shutdown.

Extended shutdowns of the specified equipment will require startup of the Republic Service's Adrian Landfill gas flaring processes.

3. Initiate the proper equipment, process and system shutdown sequence by one or more of the following:

   a. Press Emergency Stop as determined to be necessary.
   b. Close On / Off switch(es) or Push On / Off button(s).
   c. Close adjacent valves as determined to be necessary.

4. Observe that system achieves normal shutdown ranges for appropriate gas and fluid levels, pressures and temperatures.

5. Refer to Operations and Maintenance Manuals as determined to be necessary.

6.0 Malfunction Standard Operating Procedures

"Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions." (40 CFR §63.2).

1. If landfill gas is determined to be venting from the gas treatment system, the equipment and processes will be immediately isolated from the Adrian Landfill gas collection system.

   Appropriate Adrian Landfill representatives will be contacted to inform them that the gas treatment and electricity generation processes are off-line.

2. An investigation of the equipment that caused the malfunction will be performed and corrective actions implemented.

3. After the cause of the malfunction has been identified and corrective actions implemented, the fuel use and electricity generation processes will be restarted using the procedures specified in this document (Section 4.0 Startup Operating Procedures).

4. Refer to Operations and Maintenance Manuals as determined to be necessary.

7.0 Recordkeeping

The following information will be maintained to verify proper operation and maintenance of the Adrian Energy gas treatment system and that proper procedures were implemented in response to equipment startup, shutdown and malfunction requirements:

1. Weekly records of the equipment monitoring parameters that are presented in this document (Section 3.0 Gas Treatment System Monitoring).

2. Equipment maintenance and/or modification records that affect the operation of the gas treatment system.

3. Treatment System downtime records for each event (forms are provided in Appendix B).

4. Treatment System records that document the actions taken during these events, when such actions are different from those specified in this document (Section 4.0 Startup Operating Procedures, Section 5.0 Shutdown Operating Procedures, Section 6.0 Malfunction Operating Procedures).

5. A deviation report will be completed when any of the Treatment System monitored parameters are out of range.

8.0 Plan Revisions

This Gas Treatment System Preventative Maintenance, Monitoring and SSM Plan will be:

1. Amended or modified if equipment or processes are added that are not covered under the Plan; or

2. Revised within 45 days of a nonconforming event if the procedures described in the document do not adequately address any startup, shutdown and/or malfunction event that occur at the facility.

Plan revisions will be documented using the revision history log (Appendix C).

9.0 Appendices

The following documents and materials are included as part of the Gas Treatment System Preventative Maintenance, Monitoring and SSM Plan:

Appendix A: Adrian Energy's Site Specific Treatment System Monitoring Plan

Appendix B: Startup / Shutdown / Malfunction Report Form

Appendix C: Gas Treatment System Monitoring and SSM Plan Revision History

Adrian Energy Associates, LLC

APPENDIX A

SITE SPECIFIC TREATMENT SYSTEM MONITORING PLAN

Site-Specific Treatment System Monitoring Plan
40 CFR 62, Subpart OOO and 40 CFR 63, Subpart AAAA

The regulatory language in the Federal Plan Subpart OOO and NESHAP AAAA are similar but not identical, similar citations are grouped together.

This Site-Specific Treatment System Monitoring Plan is being prepared because Adrian Landfill, Inc. – Adrian Landfill is or will be subject to control requirements under 40 CFR 62, Subpart OOO and 40 CFR 63, Subpart AAAA. As part of the landfill gas collection and control system (GCCS) on-site, all or a portion of the landfill gas is "treated" as part of its overall management prior to sale or beneficial use. Per §62.16730/§63.1990, a treatment system is one that filters, de-waters, and compresses landfill gas for sale or beneficial use.

A treatment system is one of the acceptable "control systems" under the NSPS/NESHAP rule as set forth in §62.16714(c)(3)/§63.1959(b)(2)(iii)(C), which read that the owner may:

> *Route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to* §62.16714 *(c)(1) or (c)(2)/* §63.1959(b)(2)(iii)(A) or (B).

Since the Landfill has a treatment system which will act as a control system for the landfill gas subject to NSPS/NESHAP control, the monitoring requirements, specifically §62.16722(g)/ §63.1961(g) require that:

> *"The treatment system must maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in §62.16726(b)(5)(ii)/*§63.1983(b)(5)(ii).

This site-specific treatment system monitoring plan satisfies the requirements of §62.16726(b)(5)(ii)/§63.1983(b)(5)(ii). Each element of the monitoring plan is listed here followed by the site-specific information related to this specific treatment system. The requirement will be shown in bold, italicized text followed by the site-specific response for the Site.

§62.16726(b)(5)(ii)(A)/§63.1983(b)(5)(ii)(A) Monitoring records of parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, records should include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas.

Per §62.16722(g)(1)/§63.1961(g)(1), flow must be continuously (at least once every 15 minutes) monitored into the treatment system. The flow measurement device will be maintained and calibrated per manufacturer's recommendations. Also, per §62.16722(g)(2)/§63.1961(g)(2), if there is a bypass line, from the treatment system, it must be secured in the closed position and inspected at least monthly to verify that gas is not being diverted to the bypass line and circumventing appropriate NSPS control. The treatment system does have a bypass line that is air actuated. To prevent the bypass line from opening, the actuator has been disconnected from its air supply.

Per §62.16726/§63.1983 all records must be 5 years up-to-date, readily accessible, on-site. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. The person(s) performing the inspection as per the frequency listed in Table 1, will record the observed value and determine if the value is within the range of operation. If the recorded value is out of the range of operation, they will immediately take corrective action, including contacting all relevant staff, as necessary. Furthermore, collected data and a description of the actions taken will be placed into the plant file.

§62.16726 (b)(5)(ii)(B)/§63.1983(b)(5)(ii)(B) Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas.

Table 1 describes monitoring methods, frequencies, and operating ranges for each monitored treatment operating parameter. In addition, Table 1 documents the monitoring methods, data, and ranges for each monitored treatment system operating parameter – see Attachment A for the recordkeeping log.

§62.16726 (b)(5)(ii)(C)/ §63.1983(b)(5)(ii)(C) Documentation of the monitoring methods and ranges, along with justification for their use.

The justification for the monitoring methods and ranges for each monitored treatment operating parameter is based on operational experience and/or manufacturer recommendation. This section is required since the ranges of these treatment parameters are not prescribed by the NSPS rules, rather, they are to be set on a site-specific basis (since different beneficial uses and gas sales require different levels of treatment). The facility has gained operational knowledge from the facility's operation as a basis of proper operation.

§62.16726 (b)(5)(ii)(D)/§63.1983(b)(5)(ii)(D) Identify who is responsible (by job title) for data collection.

Employees with the following job titles are authorized to take these treatment system readings:

- Plant Manager;
- Operations & Maintenance Manager; and
- Plant Operator

§62.16726 (b)(5)(ii)(E)/§63.1983(b)(5)(ii)(E) Processes and methods used to collect the necessary data.

Table 1 demonstrates how each type of treatment parameter (filtration, de-watering, and compression) will be monitored.

§62.16726 (b)(5)(ii)(F)/§63.1983(b)(5)(ii)(F) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

The data and equipment are reviewed regularly during the month to verify accuracy and to evaluate for trends that may be characteristic of diminishing performance. Additionally, staff will perform visual inspections of the equipment and note issues as they arise. Repairs will be made as necessary. At a minimum, filters will be cleaned and or replaced as needed to maintain the listed operational parameters.

Table 1 - Landfill Gas Treatment System Monitoring Plan

Equipment	Parameter	Inspection Frequency	Monitoring Device	Range of Operation	Basis (Manufacturer/ Engineering Analysis)
Condensate Accumulation in Knockout Vessels	Condensate Level	Weekly	Sight Glass	≤ 50% full	Operational Knowledge
Compressor/ Blower	Discharge Pressure (compression)	Weekly	Pressure monitoring device	≥ 2 psig	Operational Knowledge
Primary Coalescing Filter Vessel	Differential Pressure (filtration)	Weekly	Pressure monitoring device	≤ 2 psid	Operational Knowledge
Secondary Polishing Filter Vessel	Differential Pressure (filtration)	Weekly	Pressure monitoring device	≤ 1 psid	Operational Knowledge
Gas Cooler (moisture removal)	Differential Temperature (de-watering)	Weekly	Temperature monitoring device	Outlet Gas Temperature ≤ 120°F	Operational Knowledge

Treatment System Operator Review / Approval
Adrian Energy Associates, LLC
Name: Matt Strine
Title: Manager of Operations
Signature: Matt Strine
Date: 9/23/2021

Attachment A

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Treatment System Monitoring & Recordkeeping Log

The attached monitoring parameter record keeping document is an example of the document used to record the treatment system monitoring parameters. The log sheet is maintained electronically at the LFGTE facility.

Date Beginning : 9/8/2021

Adrian Energy Associates Treatment System Preventative Maintenance Plan Monitoring and Recordkeeping Documentation

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Is Condensate Accumulation in the Knockout vessel greater than 50% at the sight glass							
Is discharge blower pressure at least 2 psig?							
Is the primary filter dp less than 2 psid?							
Is the polishing filter dp less than 1 psid?							
Is the outlet gas teperature greater than 120 F							
Weekly Preventative Maintenance Performed							
Signature : **Date:**							

Attachment B

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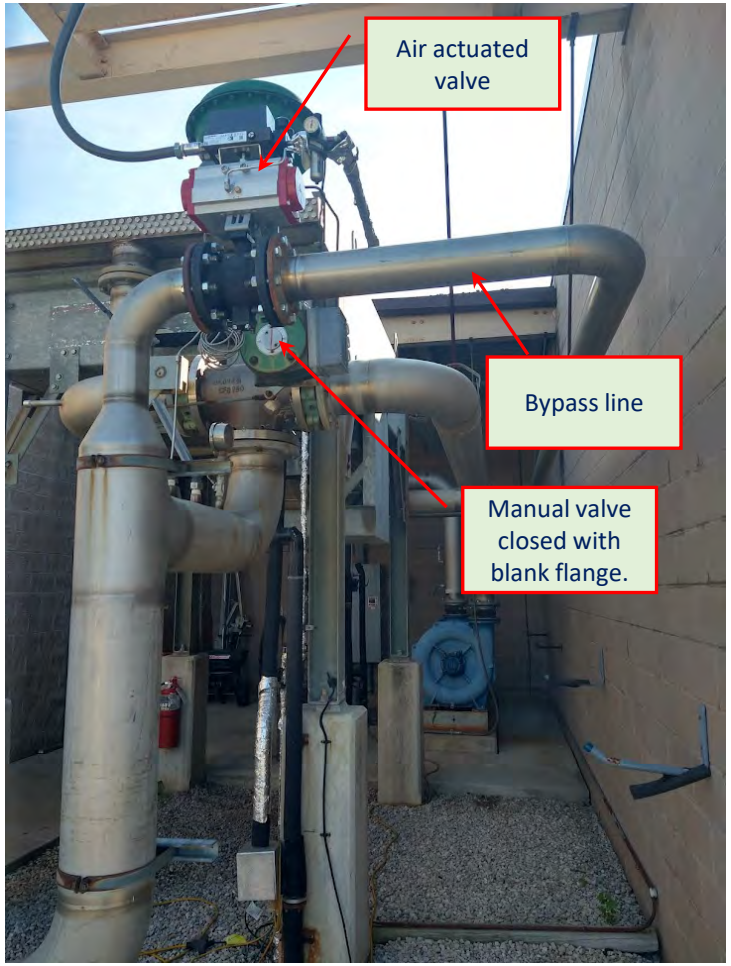
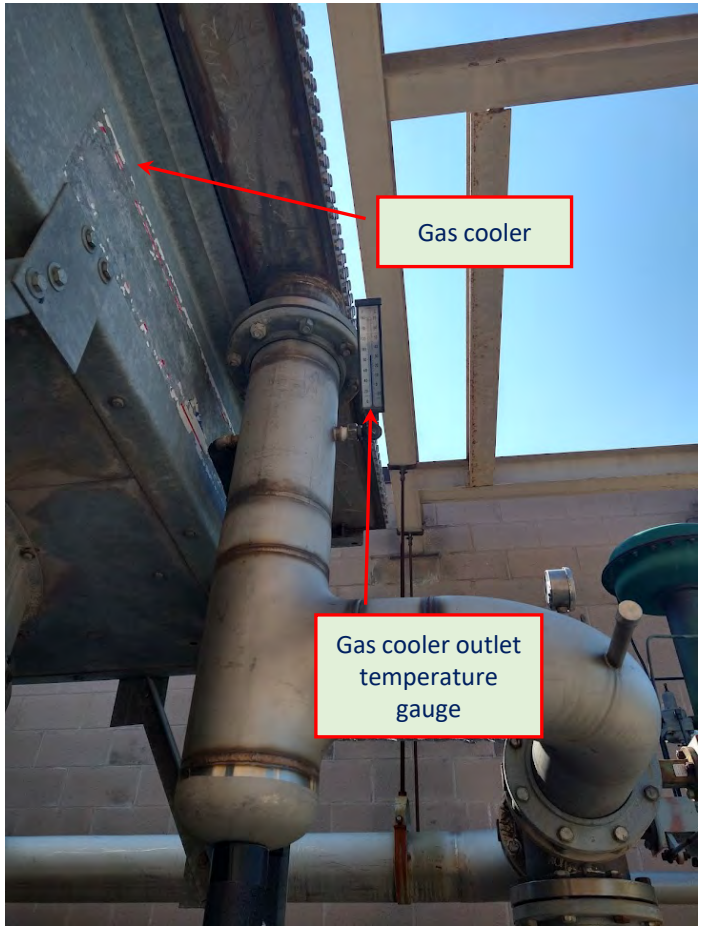
Treatment System Photos & Descriptions

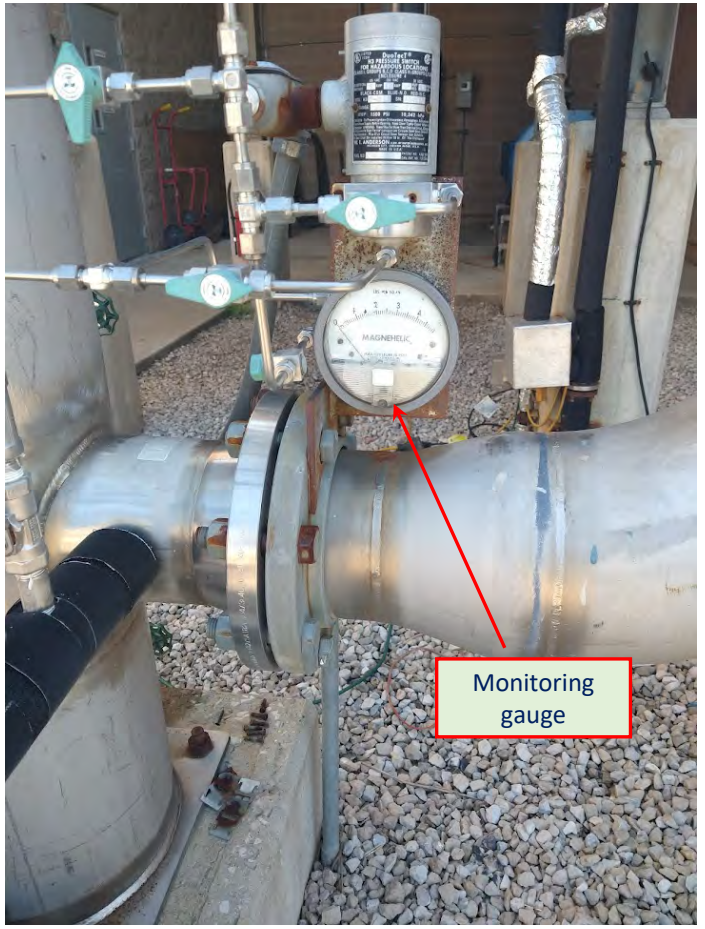
The following are photos of the treatment system equipment and the monitoring points used to verify proper operation of the treatment system.



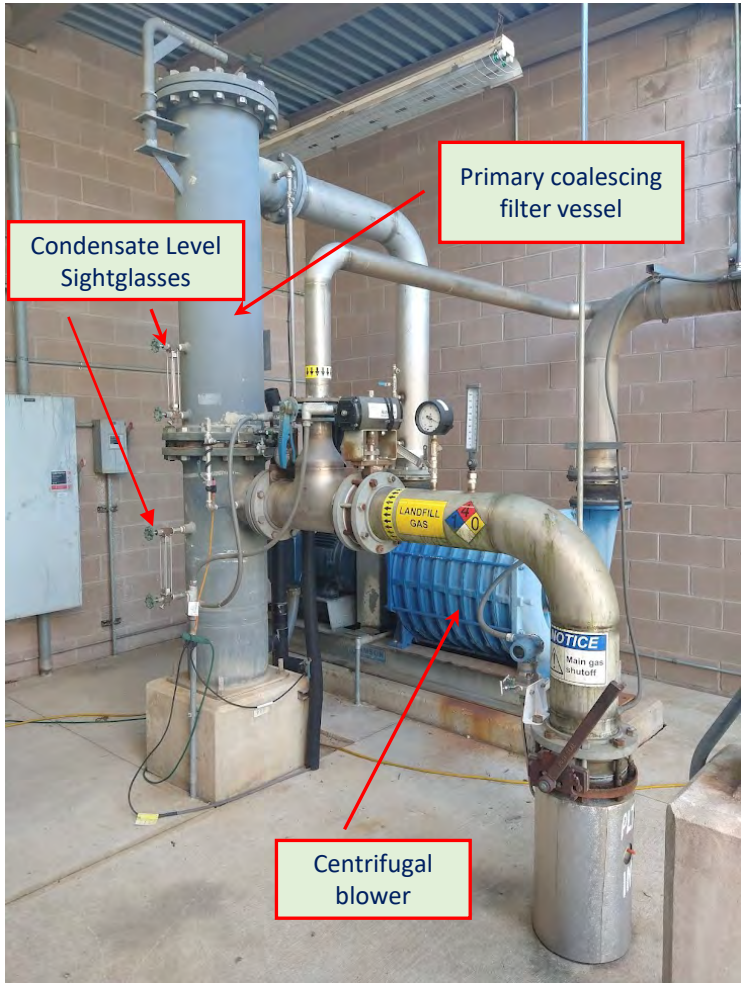
1. Air actuated automatic bypass and manually closed valve.



2. Gas cooler outlet temperature gauge (Deg F)

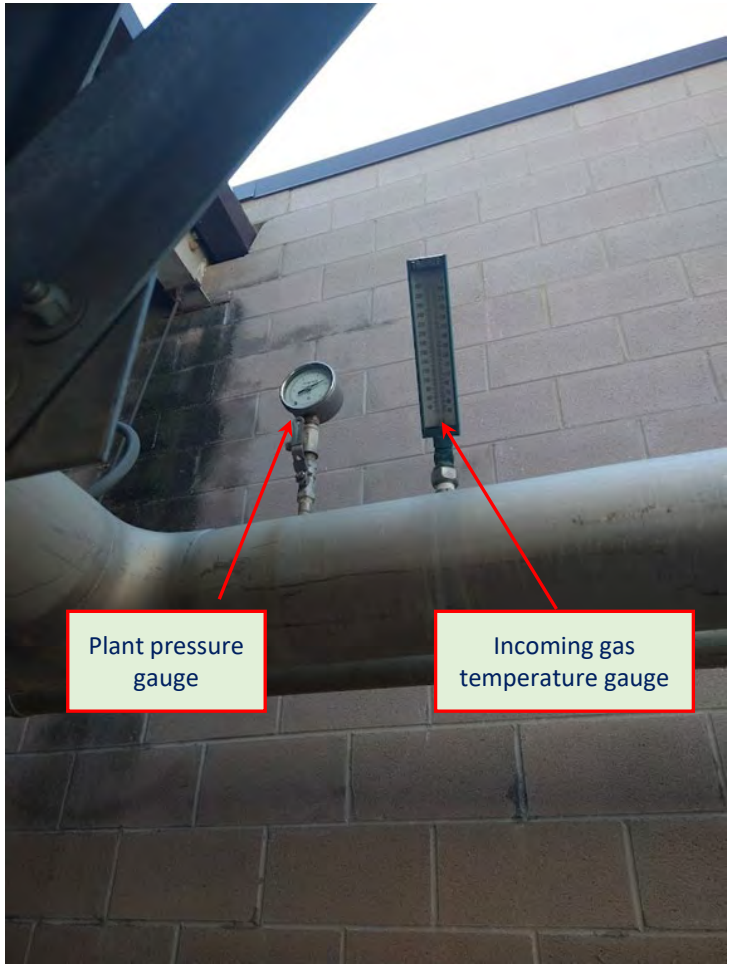


3. Primary polishing filter vessel DP gauge.



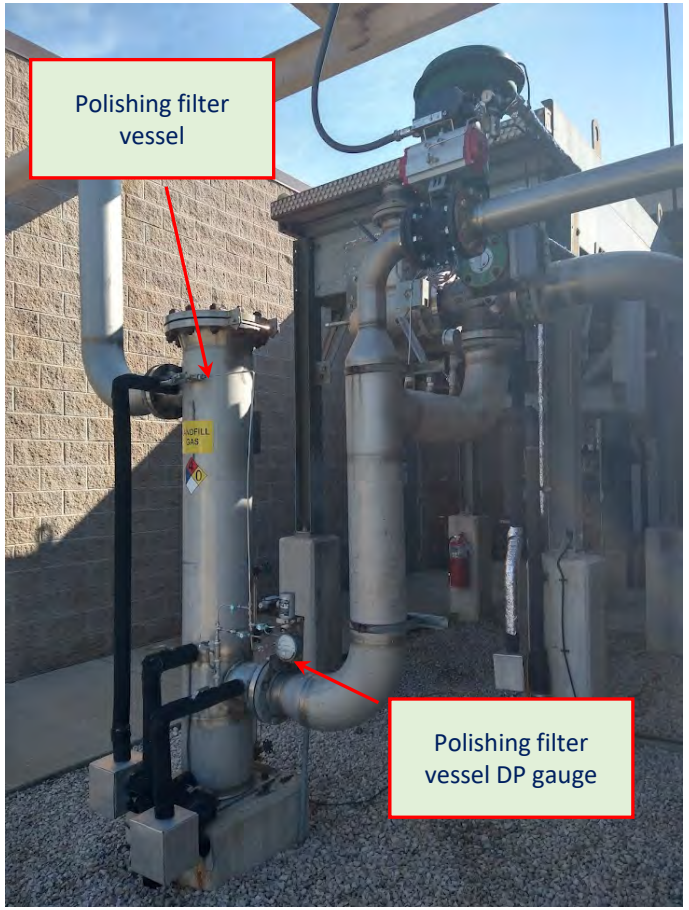
4. Blower and primary coalescing filter vessel.

5. Primary coalescing filter vessel DP Gauge



6. Plant pressure / vacuum & incoming gas temp.

7. Primary coalescing filter DP gauge.

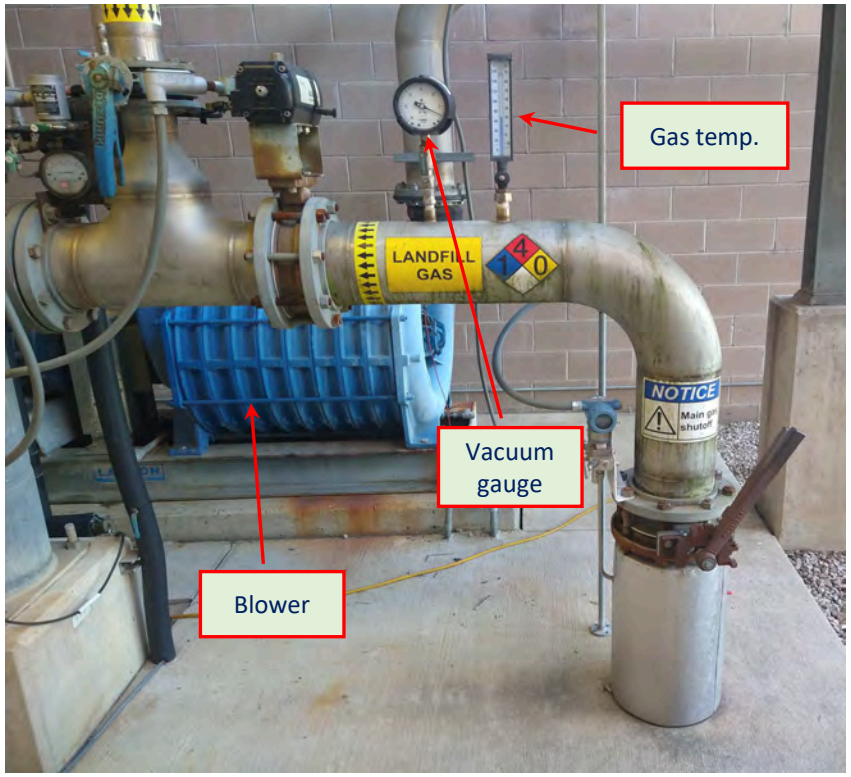


8. Polishing filter vessel DP gauge

9. Gas cooler

10. Polishing filter vessel condensate sight glasses.

11. Yokogawa monitoring device screen.



12. Treatment system blower, Vacuum gauge & landfill gas temp.

Attachment C

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List of Treatment System O&M Documents

The following is a list of Operations & Maintenance (O&M) procedural related items associated with the treatment system equipment. These items are maintained on site in the facility's manual titled "Instruction Manual – Operations and Maintenance". This is only being included as a reference to this plan.

- Amercool – Gas Cooler
- Lamson Corp. – Gas Blower
- MIC Equipment
- Pall – Gas Filtration

INSTRUCTION MANUAL
OPERATION AND MAINTENANCE

CUSTOMER	LANDFILL ENERGY
MODEL	1 F15-097-1
CUSTOMER PO NUMBER	CS 0657
AMERCOOL JOB	94C682

TABLE OF CONTENTS

SECTION **MANUFACTURER/ITEM**

Prepared by Scott Gauthier - Project Manager

TABLE OF CONTENTS

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TABLE OF CONTENTS

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Adrian Energy Associates, LLC

APPENDIX B

STARTUP, SHUTDOWN & MALFUNCTION LOG FORM

Adrian Energy Associates, LLC - Startup, Shutdown & Malfunction List
January 2024

Event #	Date / Time Off	Date / Time On	Duration (hr:min:ss)	Equipment Affected [1]	Was Event a Malfunction [2] (YES / NO)	Description of SSM Event.	SSM Plan Procedure Followed (Yes / No)	Manual / Automatic Shutdown
			0:00:00					
			0:00:00					
			0:00:00					
			0:00:00					
			0:00:00					
			0:00:00					
			0:00:00					
			0:00:00					
			0:00:00					
			0:00:00					
			0:00:00					

[1] Equipment Affected Codes: Treatment System / Gas Skid (TS), Monitoring System (MS), Control Device (CD), or Gas Collection System / Well field related (GCS)

[2] Definition of Malfunction: Any sudden and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

[3] Not applicable (N/A) if SSM Plan procedures were followed and found acceptable during SSM event.

Adrian Energy Associates, LLC

APPENDIX C

MALFUNCTION
ABATEMENT/PREVENTATIVE
MAINTENANCE PLAN REVISION HISTORY

Adrian Energy Associates, LLC

Malfunction Abatement/Preventative Maintenance Plan
Revision History

This Plan will be amended if equipment or processes are added that are not covered under the plan or will be revised within 45 days of non-conforming events if the procedures described herein do not adequately address any malfunction or start- up/shutdown events that occur at the facility. A copy of the original plan and all revisions/addendums will be kept on file at the facility for at least five (5) years.

Date of Revision	Reason For Revision
7/23/2009	Initial draft of the Malfunction Abatement/Preventative Maintenance Plan
9/23/2021	Regulatory changes – 40 CFR Part 62 – Subpart OOO (NSPS for Municipal Solid Waste Landfills) – Development of Site Specific Treatment System Monitoring Plan.
4/25/2024	Revised original Malfunction Abatement/Preventive Maintenance Plan as part of the ROP renewal application to include the facility's Site Specific Treatment System Monitoring Plan.