DEQ

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 www.michigan.gov/deq.

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)
N2688	4953	562212	MI-ROP-N2688-2011	01

Source Name
Advanced Disposal-Arbor Hills Landfill

Street Address
10690 W. Six Mile Road

City	State	ZIP Code	County
Northville	MI	48168	Washtenaw

Section/Town/Range (if address not available)

Source Description
Municipal Solid Waste Landfill >50Mg NMOC

☒ 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.

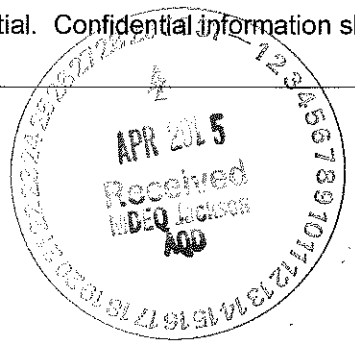
OWNER INFORMATION

Owner Name	Section Number (if applicable)
Advanced Disposal-Arbor Hills Landfill	01

Mailing address (☒ check if same as source address)

City	State	ZIP Code	County	Country

☐ 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: N2688	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	
Thomas Flannagan			General Manager	
Mailing address (☒ check if same as source address)				
City	State	ZIP Code	County	Country
n				
Phone number		E-mail address		
704-985-2992		thomas.flannagan@advanceddisposal.com		

Contact 2 Name (optional)			Title	
Dan Fleshour			Compliance Manager	
Mailing address (☐ check if same as source address)				
4665 Cornell Rd, Suite 350				
City	State	ZIP Code	County	Country
Cincinnati	OH	45214		USA
Phone number		E-mail address		
513-284-3615		dan.fleshour@advanceddisposal.com		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name			Title	
Thomas Flannagan			General Manager	
Mailing address (☒ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		
714-985-2992		thomas.flannagan@advanceddisposal.com		

Responsible Official 2 Name (optional)			Title	
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: N2688	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.

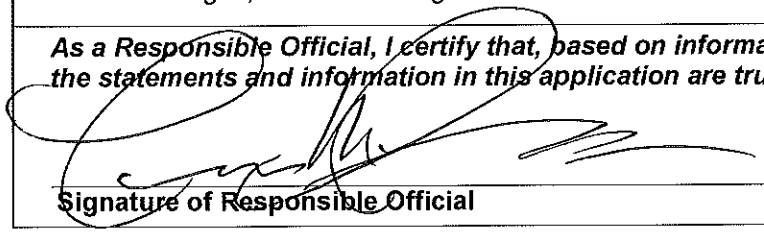
Listing of ROP Application Contents	
☒ Completed ROP Renewal Application Form (required)	☐ Compliance Plan/Schedule of Compliance
☒ Mark-up copy of existing ROP (required)	☐ Compliance Assurance Monitoring (CAM) Plan
☐ Copies of all Permit(s) to Install that have not been incorporated into existing ROP (required)	☐ Acid Rain Permit Initial/Renewal Application
☐ Additional Information (AI-001) Forms	☐ Clean Air Interstate Rule (CAIR) Permit Initial/Renewal Application(s)
☐ MAERS Forms (to report emissions not previously submitted)	☐ Confidential Information
☒ Greenhouse Gas Emissions information (if applicable)	☐ Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP
☐ Stack information	☐ Other, explain:
☒ Paper copy of all documentation provided (required)	☒ Electronic documents provided

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)

Thomas Flannagan, General Manager

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

4/23/15

Date

SRN: N2688	Section Number (if applicable): 01

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 not reported in MAERS in the comments field below or 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 Prevention of Accidental Releases regulations? (Section 112(r) of the Clean Air Act Amendments, 40 CFR Part 68)	☐ Yes ☒ No
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
C4. Does this stationary source have the potential to emit 100,000 tons per year or more of CO_2e and 100 tons per year or more of greenhouse gases on a mass basis?	☒ Yes ☐ No
If Yes, provide emissions information on an AI-001 form. *See instructions*	
C5. Are any emission units subject to the Clean Air Interstate Rule (CAIR)? If Yes, identify the specific emission unit(s) subject to CAIR in the comments area below or on an AI-001 form.	☐ Yes ☒ No
Is a CAIR Permit Renewal Application included with this application?	☐ Yes ☐ No
C6. 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 in the comments field or on an AI-001 form.	☐ Yes ☒ No
Is an Acid Rain Permit Renewal Application included with this application?	☐ Yes ☐ No
C7. 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?	☐ Yes ☒ No
If "Yes", then a copy must be submitted as part of the ROP renewal application.	
Comments:	

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

SRN: N2688	Section Number (if applicable): 01

PART D: 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. exempt Storage Tanks).

Emission Unit ID	**Emission Unit Description**	**Rule 201 Exemption** [e.g. Rule 282(b)(i)]	**Rule 212(4) Exemption** [e.g. Rule 212(4)(b)]
EU1-001	321,000 gallon Leachate Storage Tank	R336.1212(3)(f)	R336.1285(aa)
EU1-002	500 gallon Diesel Fuel Stoage Tank	R336.1212(3)(e)	R336.1284(d)
EU1-003	650 gallon Engine Oil Storage Tank	R336.1212(3)(e)	R336.1284(c)
EU1-004	650 gallon Transmission Fluid Storage Tank	R336.1212(3)(e)	R336.1284(c)
EU1-005	650 gallon Hydraulic Oil Storage Tank	R336.1212(3)(e)	R336.1284(c)
EU1-006	500 gallon Used Oil Storage Tank	R336.1212(3)(e)	R336.1284(c)
EW1-007	250 gallon Used Antifreeze Tote	R336.1212(3)(e)	R336.1284(c)

Comments:

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

SRN: N2688	Section Number (if applicable): 01

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 were not reported on applicable MAERS form(s).	☐ Yes ☒ No
E3. 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 in the comment area below or on an AI-001 form. If a CAM plan has not been previously submitted to the MDEQ, one must be included with the ROP renewal application on an AI-001 form. Is a CAM plan included with this application?	☐ Yes ☒ No ☐ Yes ☐ No
E4. Do any emission units identified in the existing ROP emit regulated fugitive emissions? If Yes, identify the specific emission unit(s) in the comment area below or on an AI-001 form.	☐ Yes ☒ No
E5. Have any emission units identified in the existing ROP been modified or reconstructed that would have required a PTI? If Yes, complete Part F with the appropriate information.	☐ Yes ☒ No
E6. 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:

SRN: N2688	Section Number (if applicable): 01

PART F: PERMIT TO INSTALL INFORMATION

Review all emission units and applicable requirements at the source and answer the following questions as they pertain to **all** emission units with Permits to Install (PTI). 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 and Control Devices*)	Date of Installation/ Modification/ Reconstruction

F2. Do/Does the PTI(s) 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

If No, then all terms/conditions for new emission units/flexible groups from the PTI(s) above will be incorporated into the ROP.

F3. 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

F4. Are any emission units in the PTI(s) subject to compliance assurance monitoring (CAM)?

If Yes, identify the specific emission unit(s) subject to CAM in the comments area below or on an AI-001 form. A CAM plan must be submitted as part of the ROP renewal application on an AI-001 form. ☐ Yes ☐ No

F5. Do any of the emission units in the PTI(s) listed above emit regulated fugitive emissions? If Yes, identify the specific emission unit(s) in the comments area below or on an AI-001 form. ☐ Yes ☐ No

F6. Are there any proposed administrative changes to any of the emission unit names, descriptions or control devices in the PTIs? 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:

SRN: N2688	Section Number (if applicable): 01

PART G: EMISSION UNITS MEETING THE CRITERIA OF RULES 281(h), 285(r)(iv), 287(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(h), 285(r)(iv), 287(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 date for each.

Origin of Applicable Requirements	**Emission Unit Description – *Provide Emission Unit ID and process equipment/control device descriptions***	**Installation Date(s)**
☐ Rule 281(h) or 285(r)(iv) cleaning operation		
☐ Rule 287(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:

SRN: N2688	Section Number (if applicable): 01

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.

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 a mark-up of the Emission Unit Summary Table in the existing 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 names, process description, and control device(s) in a mark-up of the Emission Unit Summary Table in the existing ROP.	☐ Yes ☒ No
H4. Does the source propose to make any additions, changes or deletions to terms, conditions and underlying applicable requirements in the existing ROP? If Yes, identify each emission unit/flexible group subject to the addition, change or deletion and identify the high level citation for each state or federal underlying applicable requirement that the emission unit/flexible group is subject to.	☐ Yes ☒ No
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were not cited in the existing ROP? If Yes, list the CO/CJ number(s) below and add, change and/or delete the applicable requirements in the mark-up of the existing 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. 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
H8. 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

SRN: N2688	Section Number (if applicable): 01

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

H9. 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
H10. 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
H11. 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
H12. 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
H13. 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
H14. 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
H15. 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
☐ Check here if an AI-001 form is attached to provide more information for Part H. Enter AI-001 form ID:	

SRN: N2688	Section Number (if applicable): 01

Michigan Department of Environmental Quality - Air Quality Division

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.

Form Type **AI-001**	SRN

1. Operator's Additional Information ID
AI

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

3. Narrative

Page of

(2-2011)

March 20, 2015

Mr. Glen Erickson
Michigan Department of Environmental Quality
Jackson District Office
Jackson State Office Building
301 Louis Glick Highway
Jackson, Michigan 49201

RE: Arbor Hills East Landfill
ROP Number MI-ROP-N2688-2011
Submittal of Renewal Application/PTI inclusion

Dear Mr. Erickson:

Air Quality Specialist, Inc. on behalf of BFI Waste Systems of North America, LLC, is forwarding a hard copy of the application for the renewal of Renewable Operating Permit (ROP) number MI-ROP-N2688-2011 and inclusion of Permit-to-Install 179-13. The attached were submitted electronically on March 20, 2015.

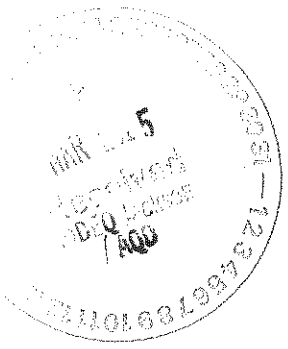
If there are questions or concerns regarding this application contact either Jennifer Baker, Air Quality Specialist, Inc. at 248.462.9522 or jenniferb@airqualityspecialist.com or Christina Pearse at cpearse@republicservices.com or 734.231.8217

Sincerely,

Jennifer Baker
Environmental Scientist

enclosure

Cc: C. Pearse-Republic Service



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Michigan Department of Environmental Quality - Air Quality Division

DEQ

RENEWABLE OPERATING PERMIT
RENEWAL APPLICATION FORM

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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 www.michigan.gov/deq.

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)
N2688	45953	562212	MI-ROP-N2688-2011	02

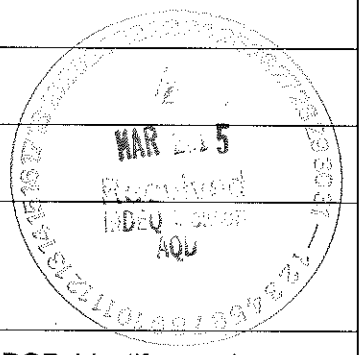
Source Name: Arbor Hills Landfill East

Street Address: 10690 W. Six Mile Road

City	State	ZIP Code	County
Northville	MI	48168	Washtenaw

Section/Town/Range (if address not available)

Source Description: Municipal Solid Waste Landfill >50Mg NMOC



☒ 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)
BFI Waste Systems of North America	02

Mailing address (☐ check if same as source address): 5011 S Lilley Road

City	State	ZIP Code	County	Country
Canton	MI	48187	Wayne	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: N2688	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	
Christina Pearse			Environmental Manager	
Mailing address (☐ check if same as source address) 5011 S Lilley Road				
City Canton	State MI	ZIP Code 48188	County Wayne	Country USA
Phone number 734-231-8217		E-mail address cbossick@republicservices.com		

Contact 2 Name (optional)			Title	
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	
Ralph Dach				
Mailing address (☐ check if same as source address) 5011 S Lilley Road				
City Canton	State MI	ZIP Code 48188	County Wayne	Country USA
Phone number 734-348-5151		E-mail address rdach@republicservices.com		

Responsible Official 2 Name (optional)			Title	
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: N2688	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

☒ Completed ROP Renewal Application Form (required)	☐ Compliance Plan/Schedule of Compliance
☒ Mark-up copy of existing ROP (required)	☐ Compliance Assurance Monitoring (CAM) Plan
☒ Copies of all Permit(s) to Install that have not been incorporated into existing ROP (required)	☐ Acid Rain Permit Initial/Renewal Application
☐ Additional Information (AI-001) Forms	☐ Clean Air Interstate Rule (CAIR) Permit Initial/Renewal Application(s)
☐ MAERS Forms (to report emissions not previously submitted)	☐ Confidential Information
☐ Greenhouse Gas Emissions information (if applicable)	☐ Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP
☐ Stack information	☐ Other, explain:
☒ Paper copy of all documentation provided (required)	☒ Electronic documents provided

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)

Ralph Dach, General Manager

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.

Ralph Dach — **Signature of Responsible Official**

3/10/2015 — **Date**

SRN: N2688	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 not reported in MAERS in the comments field below or 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 Prevention of Accidental Releases regulations? (Section 112(r) of the Clean Air Act Amendments, 40 CFR Part 68)	☐ Yes ☒ No
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
C4. Does this stationary source have the potential to emit 100,000 tons per year or more of CO_2e and 100 tons per year or more of greenhouse gases on a mass basis?	☒ Yes ☐ No
If Yes, provide emissions information on an AI-001 form. *See instructions*	
C5. Are any emission units subject to the Clean Air Interstate Rule (CAIR)? If Yes, identify the specific emission unit(s) subject to CAIR in the comments area below or on an AI-001 form.	☐ Yes ☒ No
Is a CAIR Permit Renewal Application included with this application?	☐ Yes ☐ No
C6. 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 in the comments field or on an AI-001 form.	☐ Yes ☒ No
Is an Acid Rain Permit Renewal Application included with this application?	☐ Yes ☐ No
C7. 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?	☒ Yes ☐ No
If "Yes", then a copy must be submitted as part of the ROP renewal application.	

Comments:
Startup, Shutdown, and Malfunction Plan

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

SRN: N2688	Section Number (if applicable): 02

PART D: 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. exempt Storage Tanks).

Emission Unit ID	**Emission Unit Description**	**Rule 201 Exemption** [e.g. Rule 282(b)(i)]	**Rule 212(4) Exemption** [e.g. Rule 212(4)(b)]
EU2-001	Two 50,000-gallon Leachate Storage Tank	R336.1212(3)(f)	R336.1285(aa)
EU2-002	Propane Tank	R336.1212(4)	R336.1284(b)

Comments:

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

SRN: N2688	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 were not reported on applicable MAERS form(s).	☐ Yes ☒ No
E3. 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 in the comment area below or on an AI-001 form. If a CAM plan has not been previously submitted to the MDEQ, one must be included with the ROP renewal application on an AI-001 form. Is a CAM plan included with this application?	☐ Yes ☒ No ☐ Yes ☐ No
E4. Do any emission units identified in the existing ROP emit regulated fugitive emissions? If Yes, identify the specific emission unit(s) in the comment area below or on an AI-001 form.	☐ Yes ☒ No
E5. Have any emission units identified in the existing ROP been modified or reconstructed that would have required a PTI? If Yes, complete Part F with the appropriate information.	☒ Yes ☐ No
E6. 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:

SRN: N2688	Section Number (if applicable): 021

PART F: PERMIT TO INSTALL INFORMATION

Review all emission units and applicable requirements at the source and answer the following questions as they pertain to **all** emission units with Permits to Install (PTI). 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 and Control Devices*)	Date of Installation/ Modification/ Reconstruction
179-13	FGENCLOSEDFLARES-S2	An enclosed flare is considered an enclosed combustor which is an enclosed firebox which maintains a relatively constant limited peak	3/2014

F2. Do/Does the PTI(s) 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

If No, then all terms/conditions for new emission units/flexible groups from the PTI(s) above will be incorporated into the ROP.

F3. 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

F4. Are any emission units in the PTI(s) subject to compliance assurance monitoring (CAM)?

If Yes, identify the specific emission unit(s) subject to CAM in the comments area below or on an AI-001 form. A CAM plan must be submitted as part of the ROP renewal application on an AI-001 form. ☐ Yes ☒ No

F5. Do any of the emission units in the PTI(s) listed above emit regulated fugitive emissions? If Yes, identify the specific emission unit(s) in the comments area below or on an AI-001 form. ☐ Yes ☒ No

F6. Are there any proposed administrative changes to any of the emission unit names, descriptions or control devices in the PTIs? If Yes, describe the changes on an AI-001 form. ☐ Yes ☒ No

Comments:
EUENCLOSEDFLARES-EMISSION RATES; SEE REDLINE FOR SPECIFICS

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

SRN: N2688	Section Number (if applicable): 02

PART G: EMISSION UNITS MEETING THE CRITERIA OF RULES 281(h), 285(r)(iv), 287(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(h), 285(r)(iv), 287(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 date for each.

Origin of Applicable Requirements	**Emission Unit Description – *Provide Emission Unit ID and process equipment/control device descriptions***	**Installation Date(s)**
☐ Rule 281(h) or 285(r)(iv) cleaning operation		
☐ Rule 287(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:

SRN: N2688	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.

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 a mark-up of the Emission Unit Summary Table in the existing 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 names, process description, and control device(s) in a mark-up of the Emission Unit Summary Table in the existing ROP.	☐ Yes ☒ No
H4. Does the source propose to make any additions, changes or deletions to terms, conditions and underlying applicable requirements in the existing ROP? If Yes, identify each emission unit/flexible group subject to the addition, change or deletion and identify the high level citation for <u>each</u> state or federal underlying applicable requirement that the emission unit/flexible group is subject to.	☐ Yes ☒ No
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were not cited in the existing ROP? If Yes, list the CO/CJ number(s) below and add, change and/or delete the applicable requirements in the mark-up of the existing 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. 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
H8. 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

SRN: N2688	Section Number (if applicable): 02

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

H9. 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
H10. 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
H11. 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
H12. 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
H13. 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
H14. 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
H15. 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
☐ Check here if an AI-001 form is attached to provide more information for Part H. Enter AI-001 form ID:	

SRN: N2688	Section Number (if applicable): 02

Michigan Department of Environmental Quality - Air Quality Division

DEQ

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.

Form Type **AI-001**	SRN

1. Operator's Additional Information ID
AI

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

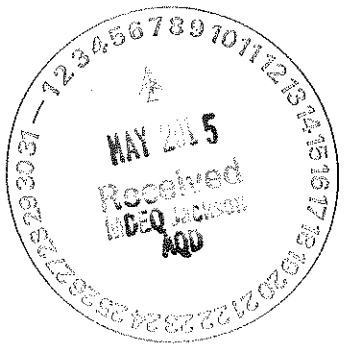
3. Narrative

Page of

(2-2011)

FORTISTAR Methane Group

Arbor Hills Energy, LLC
10611 West 5 Mile Road ◆ Northville, Michigan 48167
Tel. (248) 305-7774 ◆ Fax. (248) 305-7879



May 5, 2015

Mr. Glen Erickson
Air Quality Division
Michigan Department of Environmental Quality
301 East Lewis B. Glick Highway
Jackson, MI 49201

Subject: ROP Renewal – Section 3
Arbor Hills Energy LLC
ROP No.: MI-ROP-N2688-2011

Dear Mr. Erickson,

Please find enclosed the ROP Renewal forms and markup to the existing ROP which are being submitted within the necessary time frame before the permit expiration date on January 24, 2016. No additions, deletions or comments were made to the existing facility's ROP-Section 3. Please note that source testing for EUTURBINE4-S3 is tentatively scheduled to occur in July 2015 prior to the ROP renewal deadline of July 24, 2015.

If you have any questions, please contact Suparna Chakladar at your convenience at (951) 833-4153.

Sincerely,

Anthony J. Falbo
Senior Vice President - Operations
Fortistar Methane Group
Arbor Hills Energy, LLC

Cc: Ms. Suparna Chakladar

DEQ

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 www.michigan.gov/deq.

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)
N2688	4911	221118	MI-ROP-N2688-2011	3

Source Name: Arbor Hills Energy LLC

Street Address: 1611 W. Five Mile Road

City	State	ZIP Code	County
Northville	MI	48167	

Section/Town/Range (if address not available)

Source Description: Electric generating facility operating on Landfill Gas.

MAY 2015 Received MDEQ - Offices AQD

☐ 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)
Arbor Hills Energy LLC	3

Mailing address (☐ check if same as source address): 5087 Junction Road

City	State	ZIP Code	County	Country
Lockport	NY	14094	Niagara	U.S.A.

☐ 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: N2688	Section Number (if applicable): 3

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	
Suparna Chakladar			Vice President	
Mailing address (☐ check if same as source address) 5087 Junction Road				
City Lockport	State NY	ZIP Code 14094	County Niagara	Country U.S.A.
Phone number (951) 833-4153		E-mail address schakladar@fortistar.com		

Contact 2 Name (optional)			Title	
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	
Anthony J. Falbo			Senior Vice President - Operations	
Mailing address (☐ check if same as source address) 5087 Junction Road				
City Lockport	State NY	ZIP Code 14094	County Niagara	Country U.S.A.
Phone number (716) 439-1004		E-mail address afalbo@fortistar.com		

Responsible Official 2 Name (optional)			Title	
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: N2688	Section Number (if applicable): 3

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	
☒ Completed ROP Renewal Application Form (required)	☐ Compliance Plan/Schedule of Compliance
☒ Mark-up copy of existing ROP (required)	☐ Compliance Assurance Monitoring (CAM) Plan
☐ Copies of all Permit(s) to Install that have not been incorporated into existing ROP (required) – N/A	☐ Acid Rain Permit Initial/Renewal Application
☐ Additional Information (AI-001) Forms	☐ Clean Air Interstate Rule (CAIR) Permit Initial/Renewal Application(s)
☐ MAERS Forms (to report emissions not previously submitted)	☐ Confidential Information
☐ Greenhouse Gas Emissions information (if applicable)	☐ Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP
☐ Stack information	☐ Other, explain:
☒ Paper copy of all documentation provided (required)	☐ Electronic documents provided

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)

Anthony J. Falbo, Senior Vice President - Operations

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**

SRN: N2688	Section Number (if applicable): 3

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 not reported in MAERS in the comments field below or 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 Prevention of Accidental Releases regulations? (Section 112(r) of the Clean Air Act Amendments, 40 CFR Part 68)	☐ Yes ☒ No
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
C4. Does this stationary source have the potential to emit 100,000 tons per year or more of CO_2e and 100 tons per year or more of greenhouse gases on a mass basis?	☐ Yes ☒ No
If Yes, provide emissions information on an AI-001 form. *See instructions*	
C5. Are any emission units subject to the Clean Air Interstate Rule (CAIR)? If Yes, identify the specific emission unit(s) subject to CAIR in the comments area below or on an AI-001 form.	☐ Yes ☒ No
Is a CAIR Permit Renewal Application included with this application?	☐ Yes ☐ No
C6. 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 in the comments field or on an AI-001 form.	☐ Yes ☒ No
Is an Acid Rain Permit Renewal Application included with this application?	☐ Yes ☐ No
C7. 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?	☐ Yes ☒ No
If "Yes", then a copy must be submitted as part of the ROP renewal application.	

Comments:

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

SRN:	Section Number (if applicable):

PART D: 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. exempt Storage Tanks).

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

Comments:

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

SRN: N2688	Section Number (if applicable): 3

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 were not reported on applicable MAERS form(s).	☐ Yes ☒ No
E3. 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 in the comment area below or on an AI-001 form. If a CAM plan has not been previously submitted to the MDEQ, one must be included with the ROP renewal application on an AI-001 form. Is a CAM plan included with this application?	☐ Yes ☒ No ☐ Yes ☐ No
E4. Do any emission units identified in the existing ROP emit regulated fugitive emissions? If Yes, identify the specific emission unit(s) in the comment area below or on an AI-001 form.	☐ Yes ☒ No
E5. Have any emission units identified in the existing ROP been modified or reconstructed that would have required a PTI? If Yes, complete Part F with the appropriate information.	☐ Yes ☒ No
E6. 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:

SRN: N2688	Section Number (if applicable): 3

PART F: PERMIT TO INSTALL INFORMATION

Review all emission units and applicable requirements at the source and answer the following questions as they pertain to **all** emission units with Permits to Install (PTI). 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 and Control Devices*)	Date of Installation/ Modification/ Reconstruction

F2. Do/Does the PTI(s) 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

If No, then all terms/conditions for new emission units/flexible groups from the PTI(s) above will be incorporated into the ROP.

F3. 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

F4. Are any emission units in the PTI(s) subject to compliance assurance monitoring (CAM)?

If Yes, identify the specific emission unit(s) subject to CAM in the comments area below or on an AI-001 form. A CAM plan must be submitted as part of the ROP renewal application on an AI-001 form. ☐ Yes ☐ No

F5. Do any of the emission units in the PTI(s) listed above emit regulated fugitive emissions? If Yes, identify the specific emission unit(s) in the comments area below or on an AI-001 form. ☐ Yes ☐ No

F6. Are there any proposed administrative changes to any of the emission unit names, descriptions or control devices in the PTIs? 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:

SRN:	Section Number (if applicable):

PART G: EMISSION UNITS MEETING THE CRITERIA OF RULES 281(h), 285(r)(iv), 287(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(h), 285(r)(iv), 287(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 date for each.

Origin of Applicable Requirements	**Emission Unit Description – *Provide Emission Unit ID and process equipment/control device descriptions***	**Installation Date(s)**
☐ Rule 281(h) or 285(r)(iv) cleaning operation		
☐ Rule 287(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:

SRN: N2688	Section Number (if applicable): 3

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.

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 a mark-up of the Emission Unit Summary Table in the existing 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 names, process description, and control device(s) in a mark-up of the Emission Unit Summary Table in the existing ROP.	☐ Yes ☒ No
H4. Does the source propose to make any additions, changes or deletions to terms, conditions and underlying applicable requirements in the existing ROP? If Yes, identify each emission unit/flexible group subject to the addition, change or deletion and identify the high level citation for each state or federal underlying applicable requirement that the emission unit/flexible group is subject to.	☐ Yes ☒ No
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were not cited in the existing ROP? If Yes, list the CO/CJ number(s) below and add, change and/or delete the applicable requirements in the mark-up of the existing 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. 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
H8. 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

SRN: N2688	Section Number (if applicable): 3

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

H9. 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
H10. 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
H11. 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
H12. 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
H13. 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
H14. 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
H15. 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
☐ Check here if an AI-001 form is attached to provide more information for Part H. Enter AI-001 form ID:	

SRN: N2688	Section Number (if applicable): 3

Michigan Department of Environmental Quality - Air Quality Division

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.

Form Type **AI-001**	SRN

1. Operator's Additional Information ID
AI

Additional Information

2. Is This Information Confidential? ☐ Yes ☐ No

3. Narrative

Page of

Section 1

ROP No: MI-ROP-N2688~~N2688N2688~~-2011

Expiration Date: ~~January 24, 2016~~

PTI No.:MI-PTI-N2688~~N2688N2688~~-2011

Michigan Department of Natural Resources and Environment
Air Quality Division

EFFECTIVE DATE: ~~January 24, 2011~~

ISSUED TO
~~Veolia~~Advanced Disposal-Arbor Hills Landfill, Inc.
State Registration Number (SRN): N2688

LOCATED AT
10690 W. Six Mile Road, Northville, Michigan 48168

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-N2688~~N2688N2688~~-2011

Expiration Date: ~~January 24, 2016~~

Administratively Complete ROP Renewal Application Due Between ~~July 24, 2014~~ and ~~July 24, 2015~~

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 Michigan Air Pollution Control Rule 210(1), 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-N2688~~N2688N2688~~-202011

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(5) of Act 451. Pursuant to Michigan Air Pollution Control Rule 214a, 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 Natural Resources and Environment

Scott Miller, Jackson District Supervisor

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TABLE OF CONTENTS

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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 Environmental Quality (DNRE) 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 will be identified for each ROP term or condition. All terms and conditions that are included in a PTI, are streamlined or subsumed, 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.

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SECTION 1

Arbor Hills LF West

State Registration Number (SRN): N2688

LOCATED AT

Arbor Hills Landfill West

10690 W. Six Mile Road, Northville, Michigan 48168

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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), R336.1214a(5))**
- Those conditions that are hereby incorporated in federally enforceable Source- wide PTI No. MI-PTI-N2688-20201 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.,

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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). **(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. Except as provided in Subrules 2, 3, and 4 of Rule 301, states in part; "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 Rule 301(1)(a) or (b) unless otherwise specified in this ROP." The grading of visible emissions shall be determined in accordance with Rule 303. **(R 336.1301(1) in pertinent part)**:
    a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
    b. A limit specified by an applicable federal new source performance standard.

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). **(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(4))**

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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 states 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. **(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.

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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. **(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))**

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c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

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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(9))**

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))**

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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(7))**

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, Part 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, Part 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR, Part 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

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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, DNRE. [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, or has been interrupted for 18 months, the applicable terms and conditions from that PTI 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, DNRE, 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).

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Sectioned ROPs with Stationary Source-Wide Requirements Having Multiple Responsible Officials

Each responsible official shall certify annually the compliance status of the stationary source with all stationary source-wide conditions. This certification shall be included as part of the annual certification of compliance as required in the General Conditions in Part A and Rule 213(4)(c). **(R 336.1213(4)(c))**

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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.

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C. EMISSION UNIT 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
EUASBESTOS-WEST-S1	Any active or inactive asbestos disposal site.	NA	NA
EUAHCOLDCLEANERS-S1	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(v). 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.	NA	FGAHCOLDCLEANERS-S1
EUAHRULE290-S1	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.	NA	FGAHRULE290-S1

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EUASBESTOS-WEST-S1
EMISSION UNIT CONDITIONS

DESCRIPTION: This landfill is actively accepting or has accepted asbestos waste in the past.

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
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTIONS

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 36cm (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

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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. **(40 CFR 61.154(c)(1))** or

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 PARAMETERS

1. The placement of gas collection devices determined in paragraph §60.759(a)(1) shall control all gas producing areas, except as provided by §60.759 (a)(3)(i) and (a)(3)(ii). **(40 CFR 60.759(a)(3))**
   a. Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under §60.758(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 60.759(a)(3)(i))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 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 EPA 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 EPA 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 EPA 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))**

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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 §60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §60.759(a)(3)(ii). **(40 CFR 60.758(d)(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. Report shall be postmarked or received by 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. Report shall be postmarked or received by 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 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 or 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-S1

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
NA	NA	NA	NA

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).

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D. FLEXIBLE GROUP CONDITIONS

Part D outlines 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
FGAHCOLDCLEANERS-S1	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(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.	EUAHCOLDCLEANERS-S1
FGAHRULE 290-S1	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.	EUAHRULE290-S1

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FGAHCOLDCLEANERS-S1
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(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-S1

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. 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(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(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))**

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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

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(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-S1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

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FGAHRULE290-S1
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.

Emission Unit: EUAHRULE 290-S1

POLLUTION CONTROL EQUIPMENT

I. EMISSION LIMIT(S)

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(i))**

2. Each emission unit that the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(a)(ii))**

   a. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(ii)(A))**
   b. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 microgram per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(B))**
   c. For carcinogenic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(C))**
   d. The emission unit shall not emit any air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(a)(ii)(D))**

3. Each emission unit that emits only noncarcinogenic particulate air contaminants and other air contaminants that are exempted under Rule 290(a)(i) and/or Rule 290(a)(ii), if all of the following provisions are met: **(R 336.1290(a)(iii))**

   a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have an exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(a)(iii)(A))**
   b. The visible emissions from the emission unit are not more than 5 percent opacity in accordance with the methods contained in Rule 303. **(R 336.1290(a)(iii)(B))**

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c. The initial threshold screening level for each particulate air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(a)(iii)(C))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The provisions of Rule 290 apply to each emission unit that is operating pursuant to Rule 290. **(R 336.1290)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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 shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DNRE, AQD Rule 290, Permit to Install Exemption Record form (EQP 3558) or an alternative format that is approved by the AQD District Supervisor. **(R 336.1213(3))**

   a. Records identifying each air contaminant that is emitted. **(R 336.1213(3))**
   b. Records identifying if each air contaminant is controlled or uncontrolled. **(R 336.1213(3))**
   c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic. **(R 336.1213(3))**
   d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(a)(ii) and (iii). **(R 336.1213(3))**
   e. Material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in sufficient detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. **(R 336.1213(3), R 336.1290(c))**

2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information. **(R 336.1213(3))**

   a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit. **(R 336.1290(b), R 336.1213(3))**
   b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate**. (R 336.1213(3))**

3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

See Appendix 4-S1

VII. REPORTING

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

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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

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

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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 Rule213(6)(a)(ii).

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APPENDICES

Appendix 1-S1: Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

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

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

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Appendix 2-S1. Schedule of Compliance

NA

Appendix 3-S1. 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-S1. 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-S1. 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-S1. Permits to Install

The following table lists any PTIs issued since the effective date of previously issued ROP No. 199600293

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

Appendix 7-S1. Emission Calculations

Specific emission calculations to be used with monitoring, testing or recordkeeping data are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible group Special Conditions. Therefore, this appendix is not applicable.

Appendix 8-S1. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the DNRE Report Certification form (EQP 5736) and DNRE 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.

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SECTION 2

BFI Waste Services of North America, LLC

State Registration Number (SRN): N2688

LOCATED AT

Gas Collection System at Arbor Hills Landfill East and West

10690 W. Six Mile Road, Northville, Michigan 48168

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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), R336.1214a(5))**
- Those conditions that are hereby incorporated in federally enforceable Source- wide PTI No. MI-PTI-N2688-2020~~01~~ 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

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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). **(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. Except as provided in Subrules 2, 3, and 4 of Rule 301, states in part; "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 Rule 301(1)(a) or (b) unless otherwise specified in this ROP." The grading of visible emissions shall be determined in accordance with Rule 303. **(R 336.1301(1) in pertinent part)**:
    a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
    b. A limit specified by an applicable federal new source performance standard.

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). **(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(4))**

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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 states 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. **(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.

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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. **(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))**

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c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

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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(9))**

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))**

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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(7))**

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, Part 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, Part 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR, Part 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

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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, DNRE. [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, or has been interrupted for 18 months, the applicable terms and conditions from that PTI 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, DNRE, 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).

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Sectioned ROPs with Stationary Source-Wide Requirements Having Multiple Responsible Officials

Each responsible official shall certify annually the compliance status of the stationary source with all stationary source-wide conditions. This certification shall be included as part of the annual certification of compliance as required in the General Conditions in Part A and Rule 213(4)(c). **(R 336.1213(4)(c))**

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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.

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C. EMISSION UNIT 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-S2	This emission unit represents the general Municipal Solid Waste (MSW) Landfill.	1990	NA
EUACTIVECOLL-S2	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.	1990	NA
EUENCLOSEDFLARE1-S2	2,600 CFM enclosed flare for controlling excess landfill gas.	1991	FGENCLOSEDFLARES-S2
EUENCLOSEDFLARE2-S2	4,600 CFM enclosed flare for controlling excess landfill gas.	1994	FGENCLOSEDFLARES-S2
EUASBESTOS-EAST-S2	Any active or inactive asbestos disposal site.	NA	NA

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EULANDFILL-S2
EMISSION UNIT CONDITIONS

DESCRIPTION – This emission unit represents the general Municipal Solid Waste (MSW) Landfill in which the collected landfill gas is sent primarily to a treatment system.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT – Most landfill gas is treated by a treatment system (see EUTREATMENTSYS-S3 Section 3). Any untreated landfill gas is controlled by EUENCLOSEDFLARE1-S2 or EUENCLOSEDFLARE2-S2.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
Methane concentration	500 ppm above background level	Calendar quarter	Surface of Landfill	V.1., V.2.	**40 CFR 60.753(d), 40 CFR 60.755(c), 40 CFR 63.1955(a)(1)**

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall comply with the requirements in 40 CFR 63.1955(b) and 40 CFR 63.1960 through §63.1980. **(40 CFR 63.1945(d))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall have installed a collection and control system that captures the landfill gas generated within the landfill as required by 40 CFR 60.752(b)(2)(i)(C), 40 CFR 60.752(b)(2)(ii), and 40 CFR 60.752(b)(2)(iii). **(40 CFR 60.752(b)(2)(i)(C), 40 CFR 60.752(b)(2)(ii), 40 CFR 60.752(b)(2)(iii), 40 CFR 63.1955(a)(1))**

2. The permittee shall route all the collected landfill gas to at least one of the following:
   a. A flare designed in accordance with §60.18 except as noted in 40 CFR 60.754(e). **(40 CFR 60.752(b)(2)(iii)(A), 40 CFR 63.1955(a)(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 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in § 60.754(d). **(40 CFR 60.752(b)(2)(iii)(B), 40 CFR 63.1955(a)(1))**

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c. To a treatment system that processes the collected gas for subsequent sale or use. The treatment system shall be designed so that all emissions from any atmospheric vent(s) shall be subject to 40 CFR 60.752(b)(2)(iii)(A) and (B). **(40 CFR 60.752(b)(2)(iii)(C), 40 CFR 63.1955(a)(1))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. To determine if the methane concentration is less than 500 ppm above background at the surface of the landfill is exceeded, the permittee shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 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 permittee may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall 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 60.753(d), 40 CFR 63.1955(a)(1))**

2. The permittee shall use the following procedures for compliance with the surface methane operational standard as provided in §60.753(d).
   a. The permittee shall 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 approved by the AQD) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §60.755(d). **(40 CFR 60.755(c)(1), 40 CFR 63.1955(a)(1))**
   b. The background concentration shall 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 60.755(c)(2), 40 CFR 63.1955(a)(1))**
   c. Surface emission monitoring shall be performed in accordance with Section 4.3.1 of Method 21 of Appendix A of 40 CFR Part 60, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions. **(40 CFR 60.755(c)(3), 40 CFR 63.1955(a)(1))**
   d. Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified below shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of §60.753(d). **(40 CFR 60.755(c)(4), 40 CFR 63.1955(a)(1))**
      i. The location of each monitored exceedance shall be marked and the location recorded. **(40 CFR 60.755(c)(4)(i), 40 CFR 63.1955(a)(1))**
      ii. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance. **(40 CFR 60.755(c)(4)(ii), 40 CFR 63.1955(a)(1))**
      iii. If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall 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 §60.755(c)(4)(v) (below in condition **V.2.d.v.)** shall be taken, and no further monitoring of that location is required until the action specified in §60.755(c)(4)(v) (below in condition **V.2.d.v.)** has been taken. **(40 CFR 60.755(c)(4)(iii), 40 CFR 63.1955(a)(1))**
      iv. 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 60.755(c)(4) (ii) or (iii) (above in conditions **V.2.d.ii.** or **iii.)** shall be re-monitored 1 month from the initial exceedance. If the 1-month remonitoring shows a concentration less than 500 parts per million above backgrounds, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified in §60.755(c)(4)(iii) (above in condition **V.2.d.iii.**) or in §60.755(c)(4)(v) (below in condition **V.2.d.v.**) shall be taken. **(40 CFR 60.755(c)(4)(iv), 40 CFR 63.1955(a)(1))**
      v. For any location where monitored methane concentration equals or exceeds 500 parts per million above backgrounds three times within a quarterly period, a new well or other collection device shall be

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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 AQD for approval. **(40 CFR 60.755(c)(4)(v), 40 CFR 63.1955(a)(1))**

3. The permittee shall comply with the provisions in §60.755(c) with the following instrumentation specifications and procedures for surface emission monitoring devices: **(40 CFR 60.755(d), 40 CFR 63.1955(a)(1))**
   a. The portable analyzer shall meet the instrument specifications provided in Section 3 of Method 21 of Appendix A of 40 CFR Part 60, except that "methane" shall replace all references to VOC. **(40 CFR 60.755(d)(1), 40 CFR 63.1955(a)(1))**
   b. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air. **(40 CFR 60.755(d)(2), 40 CFR 63.1955(a)(1))**
   c. To meet the performance evaluation requirements in Section 3.1.3 of Method 21 of Appendix A of 40 CFR Part 60, the instrument evaluation procedures of Section 4.4 of Method 21 of Appendix A of 40 CFR Part 60 shall be used. **(40 CFR 60.755(d)(3), 40 CFR 63.1955(a)(1))**
   d. The calibration procedures provided in Section 4.2 of Method 21 of Appendix A of 40 CFR Part 60 shall be followed immediately before commencing a surface monitoring survey. **(40 CFR 60.755(d)(4), 40 CFR 63.1955(a)(1))**

4. The permittee shall keep the following written records pertaining to surface methane monitoring: **(R 336.1213(3))**
   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, **(R 336.1213(3))**
   b. The location(s) and concentrations of any reading above 500 ppm above background, **(40 CFR 60.755(c)(4)(i), R 336.1213(3))**
   c. The meteorological conditions the day of the testing including wind speed, wind direction, temperature, and cloud cover). **(R 336.1213(3))**

5. The permittee shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in §60.755(d). 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 60.756(f), 40 CFR 63.1955(a)(1))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall implement a program to monitor on a monthly basis for cover integrity and implement cover repairs as necessary. **(40 CFR 60.755(c)(5), 40 CFR 63.1955(a)(1))**

2. Except as provided in §60.752(b)(2)(i)(B), the permittee shall maintain up-to-date, readily accessible, on-site records of the design capacity report which triggered §60.752(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. **(40 CFR 60.758(a), 40 CFR 63.1955(a)(1))**

3. 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", shall 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 60.758(f), 40 CFR 63.1955(a)(1))**

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4. The permittee shall calculate and record the NMOC emission rate for purposes of determining when the system can be removed as provided in 40 CFR 60.752(b)(2)(v), using the equation presented in 40 CFR 60.754(b). **(40 CFR 60.754(b))**

5. If the permittee adds any liquids other than leachate in a controlled fashion to the waste mass and does not comply with the bioreactor requirements in 40 CFR 63.1947, §63.1955(c), and §63.1980(c) through (f), the permittee shall keep a record of calculations showing that the percent moisture by weight expected in 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 the 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 shall document the calculations and the basis of the assumptions. **(40 CFR 63.1980(g))**

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. 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. 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 equipment removal report to the appropriate AQD District Supervisor 30 days prior to removal or cessation of operation of the control equipment. **(40 CFR 60.757(e), 40 CFR 63.1955(a)(1))**
   a. The equipment removal report shall contain all of the following items:
      i. A copy of the closure report submitted in accordance with §60.757(d) **(40 CFR 60.757(e)(1)(i), 40 CFR 63.1955(a)(1))**
      ii. Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year **(40 CFR 60.757(e)(1)(iii), 40 CFR 63.1955(a)(1))**
      iii. A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired. **(40 CFR 60.757(e)(1)(ii), 40 CFR 63.1955(a)(1))**
   b. The AQD may request such additional information as may be necessary to verify that all of the conditions for removal in §60.752(b)(2)(v) have been met. **(40 CFR 60.757(e)(2), 40 CFR 63.1955(a)(1)**)

5. The permittee shall submit reports which shall be postmarked or received by 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 report shall include the location of each exceedance of the 500 parts per million methane concentrations as provided in §60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. The report shall also contain include information on all deviations that occurred during the 6-month reporting period. **(40 CFR 60.757(f)(5), 40 CFR 63.1955(a)(1), 40 CFR 63.1955(c), 40 CFR 63.1980(a))**

6. The permittee shall submit the startup, shutdown, and malfunction (SSM) report to the appropriate AQD district office and it shall be delivered or postmarked by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(40 CFR 63.10(a)(5), 40 CFR 63.10(d)(5))**

See Appendix 8-S2

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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
NA	NA	NA	NA

IX. OTHER REQUIREMENTS

1. The collection and control system may be capped or removed provided that all the following conditions are met:
   a. The landfill shall be a closed landfill as defined in §60.751. A closure report shall be submitted to the appropriate AQD District Office as provided in §60.757(d) **(40 CFR 60.752(b)(2)(v)(A), 40 CFR 63.1955(a)(1))**
   b. The collection and control system shall have been in operation a minimum of 15 years; and **(40 CFR 60.752(b)(2)(v)(B), 40 CFR 63.1955(a)(1))**
   c. Following the procedures specified in §60.754(b), the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart. **(40 CFR 60.752(b)(2)(v)(C), 40 CFR 63.1955(a)(1))**

2. The permittee shall submit a closure report to the appropriate AQD District Office within 30 days of waste acceptance cessation. The AQD 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 AQD, no additional wastes may be placed into the landfill without filing a notification of modification as described under §60.7(a)(4). **(40 CFR 60.757(d), 40 CFR 63.1955(a)(1))**

3. If monitoring demonstrates that the operational requirements above in §60.753(b), (c), or (d) are not met, corrective action shall be taken as specified in §60.755(a)(3) through (5) or §60.755(c). If corrective actions are taken as specified in condition §60.755, the monitored exceedance is not a violation of the operational requirements in this section. **(40 CFR 60.753(g), 40 CFR 63.1955(a)(1))**

4. For the approval of collection and control systems that includes any alternatives to the operational standards, test methods, procedures, compliance measures, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, the permittee shall follow the procedures in 40 CFR 60.752(b)(2). **(40 CFR 63.1955(c))**

5. The permittee shall comply with the requirements of 40 CFR Part 60, Subpart WWW. **(40 CFR 63.1955(a)(1))**

6. The permittee shall comply with the requirements of 40 CFR Part 63, Subpart AAAA, including the general provisions specified in Table 1 and the SSM requirements in 40 CFR Part 63.6. **(40 CFR 63.1955, 40 CFR 63.6)**

7. The permittee is no longer required to comply with the requirements of Subpart AAAA of Part 63 when it is no longer required to apply controls as specified in 40 CFR 60.752(b)(2)(v) of Subpart WWW. **(40 CFR 63.1950)**

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).

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EUACTIVECOLL-S2
EMISSION UNIT CONDITIONS

DESCRIPTION – 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.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: EUTREATMENTSYST-S3, EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour. **(40 CFR 60.753(e), 40 CFR 63.1955(a))**

2. The permittee shall 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 60.753(a)(1), 40 CFR 63.1955(a))**
   b. 2 years or more if closed or at final grade **(40 CFR60.753(a)(2), 40 CFR 63.1955(a))**

3. The permittee shall operate the collection system with negative pressure at each wellhead except under the following conditions: **(40 CFR 60.753(b), 40 CFR 63.1955(a))**
   a. A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the semi-annual reports as provided in §60.757(f)(1). **(40 CFR 60.753(b)(1), 40 CFR 63.1980(a), 40 CFR 63.1955(a))**
   b. Use of a geo-membrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan **(40 CFR 60.753(b)(2), 40 CFR 63.1955(a))**
   c. A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the AQD **(40 CFR 60.753(b)(3), 40 CFR 63.1955(a))**

4. The permittee shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature or oxygen value at a particular well. A higher operating value demonstration shall be

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submitted to the appropriate Air Quality Division District for approval and it shall include supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens. **(40 CFR 60.753(c), 40 CFR 60.756(e), 40 CFR 63.1955(a))**

5. The permittee shall operate the installed collection system in accordance with the provisions of §60.753, §60.755, and §60.756. **(40 CFR 60.752(b)(2)(iv), 40 CFR 63.1955(a))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. An active collection system shall:
   a. Be 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 60.752(b)(2)(ii)(A)(1), 40 CFR 63.1955(a))**
   b. The permittee shall place each well or design component in the collection system as specified in the approved design plan as provided in §60.752(b)(2)(i). Each well shall 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 at final grade. **(40 CFR 60.755(b), 40 CFR 60.752(b)(2)(ii)(A)(2), 40 CFR 63.1955(a))**
   c. Collect gas at a sufficient extraction rate **(40 CFR 60.752(b)(2)(ii)(A)(3), 40 CFR 63.1955(a))**
   d. Be designed to minimize off-site migration of subsurface gas. **(40 CFR 60.752(b)(2)(ii)(A)(4), 40 CFR 63.1955(a))**

2. The permittee shall design the collection system so that all collected gases are vented to a control system designed and operated in compliance with §60.752(b)(2)(iii). **(40 CFR 60.753(e), 40 CFR 63.1955(a))**

3. When adding gas collectors to the active gas collection system, a sufficient density of gas collectors shall be installed in compliance with §60.752(b)(2)(ii)(A)(2) (as specified above in condition **IV.1.)**. The permittee shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the appropriate AQD District Office, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards in NSPS WWW. **(40 CFR 60.755(a)(2), 40 CFR 63.1955(a))**
   a. If the permittee is seeking to demonstrate compliance through the use of a collection system not conforming to the specifications provided in §60.759, then the permittee shall provide information that satisfies the AQD District Supervisor as specified in §60.752(b)(2)(i)(C), demonstrating that off site migration is being controlled. **(40 CFR 60.755(a)(6), 40 CFR 63.1955(a))**

4. The permittee shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead. **(40 CFR 60.756(a), 40 CFR 63.1955(a))**

5. The permittee shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the appropriate AQD District Supervisor as provided in §60.752(b)(2)(i)(C) and (D):
   a. The collection devices within the interior and along the perimeter areas shall be certified, by a professional engineer, to achieve comprehensive control of surface gas emissions. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat. **(40 CFR 60.759(a)(1), 40 CFR 63.1955(a))**
   b. The sufficient density of gas collection devices determined in §60.759(a)(1) (above in condition **IV.5.a.**) shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior. **(40 CFR 60.759(a)(2), 40 CFR 63.1955(a))**
   c. The placement of gas collection devices determined in §60.759(a)(1) (above in condition **IV.5.a.**) shall control all gas producing areas, except as provided in §60.759(a)(3) (i) and (ii) (below in conditions **IV.5.c.i**. and **ii**). **(40 CFR 60.759(a)(3), 40 CFR 63.1955(a))**

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i. Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under §60.758(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 District Supervisor upon request. **(40 CFR 60.759(a)(3)(i), 40 CFR 63.1955(a))**

ii. 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 shall be documented and provided to the AQD District Supervisor upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the equation in Appendix 7. **(40 CFR 60.759(a)(3)(ii), 40 CFR 63.1955(a)) See Appendix 7-S2**

6. The permittee shall construct the gas collection devices using the following equipment or procedures:
   a. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration. **(40 CFR 60.759(b)(1), 40 CFR 63.1955(a))**
   b. Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations. **(40 CFR 60.759(b)(2), 40 CFR 63.1955(a))**
   c. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness. **(40 CFR 60.759(b)(3), 40 CFR 63.1955(a))**

7. The active gas collection system shall be designed convey the landfill gas to a control system in compliance with §60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures: **(40 CFR 60.759(c), 40 CFR 63.1955(a))**
   a. For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in §60.759(c)(2) shall be used. **(40 CFR 60.759(c)(1), 40 CFR 63.1955(a))**
   b. For new collection systems, the maximum flow rate shall be in accordance with §60.755(a)(1). **(40 CFR 60.759(c)(2), 40 CFR 63.1955(a))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 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 §60.752(b)(2)(ii)(A)(*3*), the permittee shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under §60.753(b) (above in conditions **III.3.a-c**). If negative pressure cannot be achieved without excess air infiltration within 15 calendar

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days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the AQD for approval. **(40 CFR 60.755(a)(3), 40 CFR 60.756(a)(1), 40 CFR 63.1955(a))**

a. If monitoring demonstrates that the negative pressure is not being met, then corrective action shall be taken as noted in §60.755(a)(3) (above in condition **VI.1.**). If corrective actions are taken as specified in §60.755, the monitored exceedance is not a violation of the operational requirements. **(40 CFR 60.753(g), 40 CFR 63.1955(a))**

2. The permittee is not required to expand the gas collection system as required in §60.755(a)(3) (above in condition **VI.1.**) during the first 180 days after gas collection system startup. **(40 CFR 60.755(a)(4), 40 CFR 63.1955(a))**

3. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the permittee shall monitor each well monthly for temperature and oxygen as provided in §60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the AQD for approval. **(40 CFR 60.755(a)(5), 40 CFR 60.756(a)(2), 40 CFR 60.756(a)(3), 40 CFR 63.1955(a))**
   a. If monitoring demonstrates that the temperature and oxygen levels are not being met, then corrective action shall be taken as noted above and specified in §60.755(a)(5). If corrective actions are taken as specified in §60.755, the monitored exceedance is not a violation of the operational requirements. **(40 CFR 60.753(g), 40 CFR 63.1955(a))**
   b. Unless an alternative test method is established as allowed by §60.752(b)(2)(i), the oxygen shall be determined by an oxygen meter using Method 3A or 3C except that:
      i. The span shall be set so that the regulatory limit is between 20 and 50 percent of the span **(40 CFR 60.753(c)(i), 40 CFR 63.1955(a))**
      ii. A data recorder is not required **(40 CFR 60.753(c)(ii), 40 CFR 63.1955(a))**
      iii. Only two calibration gases are required, a zero and span, and ambient air may be used as the span **(40 CFR 60.753(c)(iii), 40 CFR 63.1955(a))**
      iv. A calibration error check is not required **(40 CFR 60.753(c)(iv), 40 CFR 63.1955(a))**
      v. The allowable sample bias, zero drift, and calibration drift are ±10 percent. **(40 CFR 60.753(c)(v), 40 CFR 63.1955(a))**

4. Except as provided in §60.752(b)(2)(i)(B), the permittee shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in §60.758(b)(1) through (b)(4) (below in conditions **VI.4.a-b**) as measured during the compliance determination. Records of the control device vendor specifications shall be maintained until removal. **(40 CFR 60.758(b), 40 CFR 63.1955(a))**
   a. The maximum expected gas generation flow rate as calculated in §60.755(a)(1). The permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the appropriate AQD District Office. **(40 CFR 60.758(b)(1)(i), 40 CFR 63.1955(a))**
   b. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in §60.759(a)(1). **(40 CFR 60.758(b)(1)(ii), 40 CFR 63.1955(a))**

5. Except as provided in §60.752(b)(2)(i)(B), the permittee shall 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 §60.755(b) (above in condition **IV.1.b.**). **(40 CFR 60.758(d), 40 CFR 60.758(d)(1), 40 CFR 63.1955(a))**

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6. The permittee shall keep readily accessible records of all collection and control system exceedances of the operational standards in §60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance. **(40 CFR 60.758(e), 40 CFR 63.1955(a))**

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7. The permittee shall 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 60.757(g)(1), 40 CFR 63.1955(a))**
   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 60.757(g)(2), 40 CFR 63.1955(a))**
   c. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material. **(40 CFR 60.757(g)(3), 40 CFR 63.1955(a))**
   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 CFR60.757(g)(4), 40 CFR 63.1955(a))**
   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 60.757(g)(5), 40 CFR 63.1955(a))**
   f. The provisions for the control of off-site migration. **(40 CFR 60.757(g)(6), 40 CFR 63.1955(a))**
   g. The permittee shall maintain the dates of the landfill gas well installations, the age of the waste in which the landfill gas wells were installed, and the age of the in place waste for each portion of the landfill. **(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. Report shall be postmarked or received by 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. Report shall be postmarked or received by 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 office semi-annual reports for the gas collection system. Reports 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. For enclosed combustion devices and flares, reportable exceedances are defined under §60.758(c). The semi-annual reports for the gas collection system shall include the following information: **(40 CFR 60.757(f), 40 CFR 63.1980(a), 40 CFR 63.1955(a), 40 CFR 63.1965)**
   a. Value and length of time for exceedance of applicable parameters monitored under §60.756(a), (above in conditions **VI.1. and VI.3.**). **(40 CFR 60.757(f)(1))**
   b. All periods when the collection system was not operating in excess of 5 days. **(40 CFR 60.757(f)(4))**
   c. The date of installation and the location of each well or collection system expansion added pursuant to §60.755(a)(3), §60.755(b), and §60.755(c)(4) conditions **IV.1.b., VI.1. and VI.3. (40 CFR 60.757(f)(6))**
   d. Any deviations as listed in 40 CFR 63.1965. **(40 CFR 63.1965)**
   e. The permittee shall record instances when a positive pressure occurs in efforts to avoid fire. **(40 CFR 60.753(b)(1))**

5. The permittee shall submit the startup, shutdown, and malfunction (SSM) report to the appropriate AQD district office and it shall be delivered or postmarked by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(40 CFR 63.10(a)(5), 40 CFR 63.10(d)(5))**

See Appendix 8-S2

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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
NA	NA	NA	NA

IX. OTHER REQUIREMENTS

1. If monitoring demonstrates that the operational requirements in §60.753(b), (c), or (d) (above in conditions **III.3. and III.4.**) are not met, corrective action shall be taken as specified above in §60.755(a)(3) through (5) or §60.755(c) (conditions **VI.1. and VI.3.**). If corrective actions are taken as specified in §60.755 (above in conditions **VI.1. and VI.3.**), the monitored exceedance is not a violation of the operational requirements in §60.753 (conditions **III.3. and III.4.**). **(40 CFR 60.753(g), 40 CFR 63.1955(a))**

2. The above provisions in §60.755 (conditions **IV.1.b.,VI.1. and VI.3.**) apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems. **(40 CFR 60.755(e), 40 CFR 63.1955(a))**

3. If the permittee is seeking to install a collection system that does not meet the specifications in §60.759 (above in conditions **IV.5. IV.6., and IV.7.**) or is seeking to monitor alternative parameters to those required by §60.753 through §60.756, they shall provide information satisfactory to the appropriate AQD District Office as provided in §60.752(b)(2)(i)(B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The AQD may specify additional appropriate monitoring procedures. **(40 CFR 60.756(e), 40 CFR 63.1955(a))**

4. The permittee shall have developed and implemented a written SSM plan according to the provision in 40 CFR 63.6(e)(3) for EUACTIVECOLL-S2. A copy of the SSM plan shall be maintained on site. **(40 CFR 63.1960)**

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).

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EUASBESTOS-EAST-S2
EMISSION UNIT CONDITIONS

DESCRIPTION: This landfill has accepted asbestos waste in the past.

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
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The placement of gas collection devices determined in paragraph §60.759(a)(1) shall control all gas producing areas, except as provided by §60.759 (a)(3)(i) and (a)(3)(ii). **(40 CFR 60.759(a)(3))**
   a. Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under §60.758(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 60.759(a)(3)(i))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. 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 §60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §60.759(a)(3)(ii). **(40 CFR 60.758(d)(2))**

VII. REPORTING

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

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2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. Report shall be postmarked or received by 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. Report shall be postmarked or received by appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. 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))**

5. Notify the 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 or 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-S2

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
NA	NA	NA	NA

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 CONDITIONS

Part D outlines 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.

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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
FGNOX-S2	This flexible group applies to the NOx emission limit associated with the following specific emission units: EUTURBINE1-S3, EUTURBINE2-S3, EUTURBINE3-S3, EUTURBINE4-S3, EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, EUDUCTBURNER3-S3, EUENCLOSEDFLARE1-S2, and EUENCLOSEDFLARE2-S2; and to all other process equipment at the source, including equipment covered by other new source review permits, R336.1201 grand-fathered equipment and R336.1201 exempt equipment.	EUTURBINE1-S3, EUTURBINE2-S3, EUTURBINE3-S3, EUTURBINE4-S3, EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, EUDUCTBURNER3-S3, EUENCLOSEDFLARE1-S2, and EUENCLOSEDFLARE2-S2
FGENCLOSEDFLARES-S2	An enclosed flare is considered an enclosed combustor which is an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air.	EUENCLOSEDFLARE1-S2, and EUENCLOSEDFLARE2-S2

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FGNOX-S2
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

FGNOX-S2: This flexible group applies to the NOx emission limit associated with the following specific emission units: EUTURBINE1-S3, EUTURBINE2-S3, EUTURBINE3-S3, EUTURBINE4-S3, EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, EUDUCTBURNER3-S3, EUENCLOSEDFLARE1-S2, and EUENCLOSEDFLARE2-S2; and to all other process equipment at the source, including equipment covered by other new source review permits, R336.1201 grand-fathered equipment and R336.1201 exempt equipment.

Emission Unit:
EUTURBINE1-S3, EUTURBINE2-S3, EUTURBINE3-S3, EUTURBINE4-S3, EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, EUDUCTBURNER3-S3, EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2.

POLLUTION CONTROL EQUIPMENT

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	205 tons[2]*	12-month rolling time period as determined at the end of each calendar month	FGNOX-S2	VI.1, VI.2, VI.3	**R 336.1205(3), 40 CFR 52.21 (c) and (d)**
*This includes the NOx emission limit of 165.6 tons per 12-month rolling time period limit for EUTURBINE1-S3, EUTURBINE2-S3, EUTURBINE3-S3, EUDUCTBURNER 1-S3, EUDUCTBURNER2-S3, EUDUCTBURNER3-S3, EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2, previously referenced as FGENCLOSEDCOMBUSTORS in Renewable Operating Permit No. 199600293.					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

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))**

See Appendix 5-S2

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VI. MONITORING/RECORDKEEPING

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

1. To demonstrate compliance with the nitrogen oxides emission rate, the permittee shall continuously monitor and record the flow rate of the landfill gas burned in both flares.[2]
   (R 336.1205(3), 40 CFR 52.21 (c) and (d))

2. To demonstrate compliance with the nitrogen oxides emission rate, the permittee shall monitor and record the heat content of the landfill gas burned in both flares at least once each calendar week.[2]
   (R 336.1205(3), 40 CFR 52.21 (c) and (d))

3. The permittee shall calculate a monthly NOx emission rate from each of the four gas turbines, three duct burners, and both flares with the equation listed in Appendix 7.[2] **(40 CFR 52.21 (c) and (d))**

See Appendix 7-S2

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-S2

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
SV-01	156[2]	50[2]	**R 336.1225, 40 CFR 52.21 (c) and (d)**
SV-02	156[2]	50[2]	**R 336.1225, 40 CFR 52.21 (c) and (d)**

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).

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FGENCLOSEDFLARES-S2
EMISSION UNIT CONDITIONS

DESCRIPTION An enclosed flare is considered an enclosed combustor which is an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air.

Emission Units: EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

	Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1.	NMOC	Reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen[2]	Daily	EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2	SC V.1-4	**40 CFR 60.752(b)(2)(iii)(B), 40 CFR 60.754(d), 40 CFR 60.758(b)(2)**
2.	NOx	20.0 lbs./hr.[2]	Test Protocol*~~Test Method~~	EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2	SC V. 5-8	**40 CFR 60.752(b)(2)(iii)(B), 40 CFR 60.754(d), 40 CFR 60.758(b)(2)**
3.	NOx	87.6 tpy[2]	12-month rolling time period as determined at the end of each calendar month.	EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2	SC V. 5-8	**40 CFR 60.752(b)(2)(iii)(B), 40 CFR 60.754(d), 40 CFR 60.758(b)(2)**
4.	CO	43.2~~54.9~~ lbs./hr.[2] (15.6 lb/hr for flare1-S2 and 27.6 lb/hr for flare 2-S2)	Test Protocol*~~Test Method~~	EUENCLOSEDFLARE1-S2, and EUENCLOSEDFLARE2-S2 combined	SC V. 9-12	**40 CFR 60.752(b)(2)(iii)(~~B~~), 40 CFR 60.754(d), 40 CFR 60.758(b)(2)**
~~5.~~	~~CO~~	~~240.5 tpy[2]~~	~~12-month rolling time period as determined at the end of each calendar month.~~	~~EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2~~	~~V. 9-12~~	~~**40 CFR 60.752(b)(2)(iii)(B), 40 CFR 60.754(d), 40 CFR 60.758(b)(2)**~~

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Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
6. SO2	38.9 lbs/hr[2] (14.0 lb/hr for flare 1-S2 and 24.9 lb/hr for flare 2-S2) ~~2.5 lbs./hr.[2]~~	Test Protocol*~~Test Method~~	EUENCLOSEDFLARE1-S2, and EUENCLOSEDFLARE2-S2 combined	SC V. 13-16	**40 CFR 60.752(b)(2)(iii)(B), 40 CFR 60.754(d), 40 CFR 60.758(b)(2)**
~~7. SO2~~	~~11.0 tpy[2]~~	~~12-month rolling time period as determined at the end of each calendar month.~~	~~EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2~~	~~V. 13-16~~	~~**40 CFR 60.752(b)(2)(iii)(B), 40 CFR 60.754(d), 40 CFR 60.758(b)(2)**~~
8. HCl	6.0 lbs./hr.[1]	Test Protocol*~~Test Method~~	EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2	SC V. 17-20	**R336.1225**
9. HCl	26.1 tpy[1]	12-month rolling time period as determined at the end of each calendar month.	EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2	SC V. 17-20	**R336.1225**
10. VOC	~~7.1~~7.1lbs./hr.[2]	Test Protocol*~~Test Method~~	EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2	SC V. 21-24	**40 CFR 60.752(b)(2)(iii)(B), 40 CFR 60.754(d), 40 CFR 60.758(b)(2)**
11. VOC	31.2 tpy[2]	12-month rolling time period as determined at the end of each calendar month.	EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2	SC V. 21-24	**40 CFR 60.752(b)(2)(iii)(B), 40 CFR 60.754(d), 40 CFR 60.758(b)(2)**
*Test Protocol shall determine the averaging time.					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. ~~Applicant~~ The permittee shall equip and maintain each flare with continuous temperature monitor. **(R336.1201(3), R 336.1213(3))[2]**

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2. The temperature monitor shall be calibrated or replaced on an annual basis. **(R336.1201(3), R 336.1213(3))²**

3. ~~Applicant~~The permittee shall monitor and record the flaring duration each time the enclosed ground flares are ignited in a manner and with instrumentation acceptable to the Air Quality Division. All of the accumulated data shall be kept on file for a period of at least two years and made available to the Air Quality Division upon request. **(R336.1201(3), R 336.1213(3))²**

4. The permittee shall operate the enclosed flare at all times when the collected gas is routed to the enclosed flare. **(40 CFR 60.753(f), 40 CFR 63.1955(a))**

5. The permittee shall operate control system such that all collected gases are vented to a control system designed and operated in accordance 60.752(b)(2)(iii) with (condition **III.6.**) In event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within one hour. **(40 CFR 60.753(e), 40 CFR 63.1955(a))**

6. The permittee shall route all collected non treated gas to the enclosed flare or another control system designed and operated to reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. **(40 CFR 60.752(b)(2)(iii)(B), 40 CFR 63.1955(a))**

   a. *The enclosed flare shall be operated within the parameter ranges established during the most recent performance test in compliance with §60.754(d). The operating parameters to be monitored are specified in §60.756 (below in condition **VI.1.**).* ***(40 CFR 60.752(b)(2)(iii)(B)(2), 40 CFR 63.1955(a))***

7. The provisions of NSPS WWW apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 1 hour for the enclosed flare. **(40 CFR 60.755(e), 30 CFR 63.1955(a))**

8. Applicant shall operate a flame detection system in conjunction with the flare in the event that the flame is extinguished, shut-in of all lines feeding the flare shall commence automatically. Operation of the flare shall not be restarted unless the non-continuous pilot flame is reignited. Pilot fuel shall be only propane. **(R336.1201(3), R 336.1213(3))²**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

NMOC

1. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.² **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

2. The permittee shall verify the NMOC emission rate from the FGENCLOSEDFLARES-S2, by testing, every 20 calendar quarters.² **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

3. The permittee shall notify the District Supervisor and the Technical Programst Unit no less than seven days prior to the anticipated test date.² **(R 336.2001(3))**

4. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test.² **(R 336.2001(4))**

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NOx

5. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

6. The permittee shall verify the NOx emission rate from the FGENCLOSEDFLARES-S2, by testing, every 20 calendar quarters.[2] **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

7. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.[2] **(R 336.2001(3))**

8. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test.[2] **(R 336.2001(4))**

CO

9. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.[2] **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

10. The permittee shall verify the CO emission rate from the FGENCLOSEDFLARES-S2, by testing, every 20 calendar quarters.[2] **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

11. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.[2] **(R 336.2001(3))**

12. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test.[2] **(R 336.2001(4))**

SO2

13. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.[2] **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

14. The permittee shall verify the SO2 emission rate from the FGENCLOSEDFLARES-S2, by testing, every 20 calendar quarters.[2] As an alternative to stack testing, the permittee may demonstrate compliance with the SO2 emission limits by analyzing the total sulfur content in the landfill gas, assuming 100% is oxidized into SO2, and calculating the SO2 emission rate. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

15. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.[2] **(R 336.2001(3))**

16. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test.[2] **(R 336.2001(4))**

HCl

17. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.[2] **(R 336.2001, R 336.2003, R336.1225)**

18. The permittee shall verify the HCl emission rate from the FGENCLOSEDFLARES-S2, by testing, every 20 calendar quarters.[2] As an alternative to stack testing, the permittee may demonstrate compliance with the HCL emission limits by analyzing the total chloride content in the landfill gas, assuming 100% is oxidized into HCL, and calculating the HCl emission rate. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

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19. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.[2] **(R 336.2001(3))**

20. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test.[2] **(R 336.2001(4))**

VOC

21. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.[2] **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

22. The permittee shall verify the VOC emission rate from the FGENCLOSEDFLARES-S2, by testing, every 20 calendar quarters.[2] **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

23. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.[2] **(R 336.2001(3))**

24. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test.[2] **(R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall calibrate, maintain, and operate the enclosed flare according to the manufacturer's specifications, including the following:
   a. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of plus or minus 1 percent of the temperature being measured expressed in degrees centigrade or plus or minus 0.5 degrees centigrade, whichever is greater. **(40 CFR 60.756(b)(1), 40 CFR 63.1955(a))**
   b. A device that records flow to or bypass of the control device. The permittee shall either:
      i. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; **(40 CFR 60.756(b)(2)(i), 40 CFR 63.1955(a)) or**
      ii. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line. **(40 CFR 60.756(b)(2)(ii), 40 CFR 63.1955(a))**

2. Except as provided in §60.752(b)(2)(i)(B), the permittee shall keep readily accessible continuous records of the equipment operating parameters specified to be monitored in §60.756 (above in condition VI.1.), as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. **(40 CFR 60.758(c))**
   a. The following constitute exceedances that shall be recorded and reported under §60.757(f) (above in condition **III.4.**)
      i. All 3-hour periods of operation during which the average combustion temperature was more than 28 °C (50° F) below the average combustion temperature during the most recent performance test at which compliance with §60.752(b)(2)(iii) (above in condition **III.6.**) was determined. **(40 CFR 60.758(c)(1)(i))**
         (1) 3-hour block averages are calculated in the same way as they are calculated in 40 CFR part 60 subpart WWW, except that the data collected during the events listed below are not to be included in any average computed for 40 CFR Part 63, subpart AAAA. **(40 CFR 63.1975)**
            (a) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments. **(40 CFR 63.1975(a))**
            (b) Startups. **(40 CFR 63.1975(b))**
            (c) Shutdowns. **(40 CFR 63.1975(c))**
            (d) Malfunctions. **(40 CFR 63.1975(d))**

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3. The permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified in §60.756 (above in condition **VI.1.**). **(40 CFR 60.758(c)(2)**

4. The following information shall be recorded:
   a. The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test. **(40 CFR 60.758(b)(2)(i))**
   b. The percent reduction of NMOC determined as specified in 40 CFR 60.752(b)(2)(iii)(B) achieved by the control device. **(40 CFR 60.758(b)(2)(ii))**

5. The permittee shall keep up-to-date, readily accessible records of all control system exceedances of the operational standards in §60.753 (above in conditions **III.4. and III.5.**). **(40 CFR 60.758(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. Report shall be postmarked or received by 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. Report shall be postmarked or received by 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 Office semi-annual reports for the gas collection system. Reports shall be received by 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 enclosed combustion devices and flares, reportable exceedances are defined under §60.758(c). **(40 CFR 60.757(f), 40 CFR 63.1980(a), 40 CFR 63.1955(a))** The semi-annual report shall contain:
   a. Value and length of time for exceedance of applicable parameters monitored in §60.756(b) (above in condition **VI.1.**). **(40 CFR 60.757(f)(1), 40 CFR 63.1980(a), 40 CFR 63.1955(a))**
   b. 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 as specified in §60.756 (above in condition **VI.1.b.**). **(40 CFR 60.757(f)(2), 40 CFR 63.1980(a), 40 CFR 63.1955(a))**
   c. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating. **(40 CFR 60.757(f)(3), 40 CFR 63.1980(a), 40 CFR 63.1955(a))**

5. The permittee shall submit an equipment removal report to the AQD 30 days prior to removal or cessation of operation of the enclosed flare. **(40 CFR 60.757(e))**
   a. The equipment removal report shall contain all of the following items:
      i. A copy of the closure report submitted in accordance with §60.757(d) (above in condition **VII.5.**). **(40 CFR 60.757(e)(1)(i), 40 CFR 63.1955(a))**
      ii. A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired **(40 CFR 60.757(e)(1)(ii), 40 CFR 63.1955(a))**
      iii. Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year. **(40 CFR 60.757(e)(1)(iii), 40 CFR 63.1955(a))**
   b. Additional information may be requested as may be necessary to verify that all of the conditions for removal in §60.752(b)(2)(v) have been met. **(40 CFR 60.757(e)(2), 40 CFR 63.1955(a))**

6. The permittee shall submit the startup, shutdown, and malfunction (SSM) report to the appropriate AQD district office and it shall be delivered or postmarked by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(40 CFR 63.10(a)(5), 40 CFR 63.10(d)(5))**

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See Appendix 8-S2

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
SV-01	156^2	50^2	**R336.1225, 40 CFR 52.21 (c) and (d)**
SV-02	156^2	50^2	**R336.1225, 40 CFR 52.21 (c) and (d)**

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IX. OTHER REQUIREMENTS

Compliance is determined in the same way it is determined for 40 CFR Part 60, subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data collected under §60.756(b) (1) (above in condition **VI.1.**) are used to demonstrate compliance with the operating conditions for the enclosed flare. The permittee shall have developed and implemented a written SSM plan according to the provision in 40 CFR 63.6(e)(3) for FGENCLOSEDFLARES-S2. A copy of the SSM plan shall be maintained on site. **(40 CFR 63.1960)**

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).

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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).

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APPENDICES

Appendix 1-S2: Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

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

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*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

Appendix 2-S2. Schedule of Compliance

NA

Appendix 3-S2. 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-S2. 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-S2. Testing Procedures

Specific testing 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 6-S2. Permits to Install

The following table lists any PTIs issued since the effective date of previously issued ROP No. 199600293.

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
274-03B	Solar Taurus Model 60 gas turbine	FGNOX-S2

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Appendix 7-S2. 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 Table FGNOX-S2.

To demonstrate compliance with the NOx emission rate, the permittee shall continuously monitor and record the flow rate and heat content of the landfill gas burned in each of the four gas turbines, three duct burners, and both flares. The permittee shall calculate a monthly NOx emission rate from each of the four gas turbines, three duct burners, and both flares with the following equation:

$$\frac{x \text{ Btu}}{\text{scf}} \times \frac{Q \text{scf}}{\text{month}} \times \frac{y \text{ lb NOx}}{\text{MMBtu}} \times \frac{\text{Ton}}{2{,}000} = \frac{\text{Ton NOx}}{\text{month}}$$

x= average Btu/scf of the landfill gas for the month
Q= flow rate of the landfill gas to the thermal oxidation device for the month
y= 0.1428 lbs NOx/MMBtu for EUTURBINE1-3-S3; and
y= 0.1265 lbs NOx/MMBtu for EUTURBINE4-S3; or
y= 0.1 lbs NOx/MMBtu for EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2; or
y= 0.08 lbs NOx/MMBtu for EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, and EUDUCTBURNER3-S3

Appendix 8-S2. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the DNRE Report Certification form (EQP 5736) and DNRE 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.

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SECTION 3

Gas Recovery Systems, LLC

State Registration Number (SRN): N2688

LOCATED AT

Electricity Generating Facility that operates on landfill gas from Arbor Hills Landfill East and West

1611 W. Five Mile Road, Northville, Michigan 48167

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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), R336.1214a(5))**
- Those conditions that are hereby incorporated in federally enforceable Source- wide PTI No. MI-PTI-N2688-20~~201~~ 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.,

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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). **(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. Except as provided in Subrules 2, 3, and 4 of Rule 301, states in part; "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 Rule 301(1)(a) or (b) unless otherwise specified in this ROP." The grading of visible emissions shall be determined in accordance with Rule 303. **(R 336.1301(1) in pertinent part)**:
    a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
    b. A limit specified by an applicable federal new source performance standard.

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). **(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(4))**

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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 states 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. **(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.

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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. **(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))**

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c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

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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(9))**

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))**

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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(7))**

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, Part 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, Part 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR, Part 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

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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, DNRE. [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, or has been interrupted for 18 months, the applicable terms and conditions from that PTI 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, DNRE, 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).

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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.

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EMISSION UNIT 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
EUTREAMENTSYS-S3	Processing equipment that treats collected landfill gas for subsequent sale or use.	1990	NA
EUTURBINE4-S3	EUTURBINE4-S3 is a stationary gas turbine as defined in 40 CFR 60.331.	2008	FGNOX-S3, FGTURBINES-S3
EUCRSCOLDCLEANERS-S3	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(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.	NA	FGGRSCOLDCLEANERS-S3
EUGRSRULE 290-S3	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.	NA	FGGRSRULE290-S3

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EUTREATMENTSYS-S3
EMISSION UNIT CONDITIONS

DESCRIPTION – 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.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: Any emissions from any atmospheric vents or stacks associated with the treatments system shall be subject to §60.752(b)(2)(iii)(A) or (B).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate the treatment system at all times when the collected gas is routed to the treatment system. **(40 CFR 60.753(f))**

2. The permittee shall operate the treatment system so that any emissions from any atmospheric vents or stacks associated with the treatment system shall be subject to §60.752(b)(2)(iii)(A) or (B). **(40 CFR 60.752(b)(2)(iii)(C), 40 CFR 63.1955(a))**

3. The permittee shall operate the treatment system to comply with the provisions of 60.753(e) and (f), and 60.756(d). **(40 CFR 60.752(b)(2)(iv), 40 CFR 63.1955(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The treatment system shall be designed as approved by AQD. **(40 CFR 60.752(b)(2)(iii)(C), 40 CFR 60.752(b)(2)(i)(D), 40 CFR 63.1955(a))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

NA

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VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep up-to-date, readily accessible records of all control or treatment system exceedances of the operational standards in §60.753(e) and (f). **(40 CFR 60.758(e), 40 CFR 63.1955(a))**

2. The permittee shall keep records of all preventative maintenance performed in accordance with the preventative maintenance plan (PMP) prepared pursuant to condition **IX.3.** of this permit. **(40 CFR 60.756(d), R 336.1213(3))**

3. The permittee shall provide information to the AQD as provided in 40 CFR 60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The AQD shall review the information and either approve it, or request that additional information be submitted. The AQD may specify additional appropriate monitoring procedures. **(40 CFR 60.756(d)).**

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. Report shall be postmarked or received by 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. Report shall be postmarked or received by appropriate AQD district office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. A description of the operation of the treatment system, the operating parameters that indicate proper performance, and the appropriate monitoring procedures shall be submitted the appropriate AQD District Office for review within 30 days after the issuance of this permit. **(40 CFR 60.752(b)(2)(i)(B), 40 CFR 63.1955(a))**

5. The permittee shall submit to the appropriate AQD District Office semi-annual reports for the landfill gas treatment system. The report shall be received by 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. **(40 CFR 60.757(f), 40 CFR 63.1980(a), 40 CFR 63.1955(a))**
   a. Value and length of time for exceedance of applicable parameters monitored under §60.756(d). **(R 336.1213(3), 40 CFR 60.757(f)(1), 40 CFR 63.1980(a), 40 CFR 63.1955(a))**
   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. **(R 336.1213(3))**
   c. Description and duration of all periods when the treatment system was not operating for a period exceeding 1 hour and length of time the control device was not operating. **(40 CFR 60.757(f)(3), 40 CFR 63.1980(a), 40 CFR 63.1955(a))**
   d. Description and duration of all periods when the treatment system was not operated in accordance with the operating parameters and monitoring procedures that were part of the plan in condition number VII.4. **(R 336.1213(3))**

6. The permittee shall submit the startup, shutdown, and malfunction (SSM) report to the appropriate AQD district office and it shall be delivered or postmarked by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(40 CFR 63.10(a)(5), 40 CFR 63.10(d)(5))**

See Appendix 8-S3

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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
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. The provisions of §60.755 apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 1 hour for the treatment system. **(40 CFR 60.755(e), 40 CFR 63.1955(a))**

2. The permittee shall have developed and implemented a written SSM plan according to the provision in 40 CFR 63.6(e)(3) for EUTREATMENTSYS-S3. A copy of the SSM plan shall be maintained on site. **(40 CFR 63.1960, (40 CFR 63.1965(c))**

3. The permittee shall have implemented a written preventative maintenance plan (PMP) for EUTREATMENTSYS-S3. At a minimum, the plan shall include a schedule of maintenance activities consistent with manufactures 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. . **(40 CFR 60.756(d), R 336.1213(3), R 336.1911)**

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).

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EUTURBINE4-S3
EMISSION UNIT CONDITIONS

DESCRIPTION

EUTURBINE4-S3 is a stationary gas turbine as defined in 40 CFR 60.331 that has an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air.

Flexible Group ID: FGNOX-S3, FGTURBINES-S3

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	9.02 lbs./hr.[2]	Test Method	EUTURBINE4-S3	V. 1-4.	**40 CFR 52.21 (c) and (d)**
2. NOx	39.5 tpy[2]	12-month rolling time period as determined at the end of each calendar month.	EUTURBINE4-S3	V. 1-4.	**40 CFR 52.21 (c) and (d); 40 CFR Part 60, Subpart KKKK**
3. NOx	96 ppm at 15% O_2 or 700 ng/J of useful output (5.5 lb/mwh)	Instantaneously	EUTURBINE 4-S3	V.1-4	**40 CFR Part 60, Subpart KKKK**
4. CO	13.2 lbs./hr.[2]	Test Method	EUTURBINE4-S3	V. 5-8.	**40 CFR 52.21 (d)**
5. CO	57.8 tpy[2]	12-month rolling time period as determined at the end of each calendar month.	EUTURBINE4-S3	V. 5-8.	**40 CFR 52.21 (d)**
6. SO2	0.9 lbs./MWhr[2], or 0.15 lbs./MMBtu heat input[2]	Instantaneously	EUTURBINE4-S3	V. 9-12.	**40 CFR 52.21 (c)and (d); 40 CFR Part 60.4330 (a)(1) or (a)(2; Subpart KKKK)**
7. HCl	0.6 lbs./hr.[1]	Test Method	EUTURBINE4-S3	V. 13-16.	**R336.1225**
8. HCl	2.5 tpy[1]	12-month rolling time period as determined at the end of each calendar month.	EUTURBINE4-S3	V. 13-16.	**R336.1225**

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Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
9. VOC	0.80 lbs./hr.[2]	Test Method	EUTURBINE4-S3	V. 17-20.	**40 CFR 52.21 (d)**
10. VOC	3.5 tpy[2]	12-month rolling time period as determined at the end of each calendar month.	EUTURBINE4-S3	V. 17-20.	**40 CFR 52.21 (d)**

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall continuously monitor and record the total landfill gas flow rate from the landfill to EUTURBINE4-S3**(R 336.1201(3), R 336.1205(3), 40 CFR 52.21 (c) and (d))[2]**
2. The permittee shall monitor and record the BTU content of the landfill gas at least once each calendar week. **(R 336.1201(3), R 336.1205(3), 40 CFR 52.21 (c) and (d))[2]**
3. The permittee shall only use landfill gas in EUTURBINE4-S4 which has been treated by the AQD approved treatment system. **(40 CFR Part 60.752(b)(2)(ii)(c))**

V. TESTING/SAMPLING

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

NOx:

1. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, 40 CFR 52.21 (c) and (d))**

2. The permittee shall perform annual performance tests in accordance with 40 CFR Part 60.4400 to demonstrate continuous compliance. If the NOx emission result from the performance test is less than or equal to 75 percent of the NOx emission limit for the EUTURBINE4-S3, the permittee may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test. If the results of any subsequent performance test exceed 75 percent of the NOx emission limit for EUTURBINE4-S3, you must resume annual performance tests. **(R 336.2001, R 336.2003, 40 CFR 52.21 (c) and (d), 40 CFR Part 60.4340)**

3. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date. **R 336.2001(3))**

4. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test. **(R 336.2001(4))**

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5. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

6. The permittee shall verify the carbon monoxide emission rate from EUTURBINE4-S3, by testing, every 20 calendar quarters. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

7. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date. **R 336.2001(3))**

8. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test. **(R 336.2001(4))**

SO2:

9. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, 40 CFR 52.21 (c) and (d))**

10. The permittee shall verify the sulfur dioxide emission rate from EUTURBINE4-S3, following the initial performance test required in 40 CFR Part 60.8, by conducting performance tests on an annual basis (no more than 14 calendar months following the previous performance test, in accordance with one of the three methodologies described in 40 CFR Part 60.4415(a)(1), (2), or (3). **(R 336.2001, R 336.2003, 40 CFR 52.21 (c) and (d))**

11. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date. **R 336.2001(3))**

12. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Support Unit within 60 days following the last date of the test. **(R 336.2001(4))**

HCl:

13. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, R336.1225)**

14. The permittee shall verify the HCl emission rate from EUTURBINE-S3, by testing, every 20 calendar quarters. **(R 336.2001, R 336.2003, R336.1225)**

15. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date. **R 336.2001(3))**

16. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test. **(R 336.2001(4))**

VOC:

17. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

18. The permittee shall verify the VOC emission rate from EUTURBINE4-S3, by testing, every 20 calendar quarters. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

19. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date. **R 336.2001(3))**

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20. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test. **(R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

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

The permittee shall monitor the sulfur content of the landfill gas fired in EUTURBINE4-S3 in accordance with the monitoring program requirements of 40 CFR Part 60 Subpart KKKK. **(40 CFR Part 60 Subpart KKKK)**

See Appendix 7-S3

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-S3

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. SV-09	48[2]	45[2]	**R336.1225, 40 CFR 52.21 (c) and (d)**

IX. OTHER REQUIREMENT(S)

1. The Permittee shall comply with all applicable provisions of Subparts A and KKKK of the New Source Performance Standards for Stationary Gas Turbines, 40 CFR 60.1 et seq. and 40 CFR 60.4300 et seq. **(40 CFR 60.4300)**
2. The Permittee shall comply with all applicable provisions of Subpart YYYY of the federal National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines as they apply to EUTURBINE4-S4 including but not limited to the provisions specified in 40 CFR 63.6090(b)(2). **(40 CFR Part 63 Subpart YYYY)**

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).

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D. FLEXIBLE GROUP CONDITIONS

Part D outlines 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
FGNOX-S3	This flexible group applies to the NOx emission limit associated with the following specific emission units: EUTURBINE1-S3, EUTURBINE2-S3, EUTURBINE3-S3, EUTURBINE4-S3, EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, EUDUCTBURNER3-S3, EUENCLOSEDFLARE1-S2, and EUENCLOSEDFLARE2-S2; and to all other process equipment at the source, including equipment covered by other new source review permits, R336.1201 grand-fathered equipment and R336.1201 exempt equipment.	EUTURBINE1-S3, EUTURBINE2-S3, EUTURBINE3-S3, EUTURBINE4-S3, EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, EUDUCTBURNER3-S3, EUENCLOSEDFLARE1-S2, and EUENCLOSEDFLARE2-S2.
FGTURBINES-S3 (with treatment system)	Three (3) EGT-Typhoon turbines that use landfill gas as fuel for the generation of electricity for the power grid.	EUTURBINE1-S3, EUTURBINE2-S3, EUTURBINE3-S3,
FGDUCTBURNERS-S3	Three (3) duct burners associated with three(3) EGT-Typhoon turbines used for heat recovery enhancement to operate a common steam turbine generator.	EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, EUDUCTBURNER3-S3
FGGRSCOLDCLEANERS–S3	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(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.	EUGRSCOLDCLEANERS-S3
FGGRSRULE290-S3	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.	EUGRSRULE290-S3

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FGNOX-S3
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

FGNOX-S3 This flexible group applies to the NOx emission limit associated with the following specific emission units: EUTURBINE1-S3, EUTURBINE2-S3, EUTURBINE3-S3, EUTURBINE4-S3, EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, EUDUCTBURNER3-S3, EUENCLOSEDFLARE1-S2, and EUENCLOSEDFLARE2-S2; and to all other process equipment at the source, including equipment covered by other new source review permits, R336.1201 grand-fathered equipment and R336.1201 exempt equipment.

Emission Unit:

EUTURBINE1-S3, EUTURBINE2-S3, EUTURBINE3-S3, EUTURBINE4-S3, EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, EUDUCTBURNER3-S3, EUENCLOSEDFLARE1-S2, and EUENCLOSEDFLARE2-S2.

POLLUTION CONTROL EQUIPMENT

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	205 tons[2]*	12-month rolling time period as determined at the end of each calendar month	FGNOX-S3	VI, 1.	**R 336.1205(3), 40 CFR 52.21 (c) and (d)**
*This includes the NOx emission limit of 165.6 tons per 12-month rolling time period limit for EUTURBINE1-S3, EUTURBINE2-S3, EUTURBINE3-S3, EUDUCTBURNER 1-S3, EUDUCTBURNER2-S3, EUDUCTBURNER3-S3, EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2, previously referenced as FGENCLOSEDCOMBUSTORS in Renewable Operating Permit No. 199600293.					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. NA

V. TESTING/SAMPLING

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

1. NA

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See Appendix 5-S3

VI. MONITORING/RECORDKEEPING

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

1. To demonstrate compliance with the nitrogen oxides emission rate, the permittee shall continuously monitor and record the flow rate of the landfill gas burned in each of the four gas turbines and three duct burners.. **(R 336.1205(3), 40 CFR 52.21 (c) and (d))**

2. To demonstrate compliance with the nitrogen oxides emission rate, the permittee shall monitor and record the heat content of the landfill gas burned in each of the four gas turbines and three duct burners, once each calendar week. **(R 336.1205(3), 40 CFR 52.21 (c) and (d))[2]**

3. The permittee shall calculate a monthly NOx emission rate from each of the four gas turbines, three duct burners, and both flares with the equation listed in Appendix 7. **(40 CFR 52.21 (c) and (d))[2]**

See Appendix 7-S3

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-S3

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
SV-01	156[2]	50[2]	**R 336.1225, 40 CFR 52.21 (c) and (d)**
SV-02	156[2]	50[2]	**R 336.1225, 40 CFR 52.21 (c) and (d)**
SV-03	48[2]	45[2]	**R 336.1225, 40 CFR 52.21 (c) and (d)**
SV-04	48[2]	45[2]	**R 336.1225, 40 CFR 52.21 (c) and (d)**

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Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
SV-05	48^2	45^2	**R 336.1225, 40 CFR 52.21 (c) and (d)**
SV-06	48^2	45^2	**R 336.1225, 40 CFR 52.21 (c) and (d)**
SV-07	48^2	45^2	**R 336.1225, 40 CFR 52.21 (c) and (d)**
SV-08	48^2	45^2	**R 336.1225, 40 CFR 52.21 (c) and (d)**
SV-09	48^2	45^2	**R 336.1225, 40 CFR 52.21 (c) and (d)**

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IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with 40 CFR Part 60, Subpart GG (NSPS GG) and 40 CFR Part 63, Subpart YYYY **(40 CFR Part 60, Subpart GG, 40 CFR Part 63, Subpart YYYY)**

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).

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FGTURBINES-S3 (with treatment system)
FLEXIBLE GROUP CONDITIONS

DESCRIPTION – This flexible group only contains requirements for the three (3) EGT turbines that have come from NSR, the turbine NSPS, or the turbine MACT. Since there is a treatment system before the turbines, there are no applicable NSPS WWW requirements for the turbines.

Emission Units: EUTURBINE1-S3, EUTURBINE2-S3, and EUTURBINE3-S3

POLLUTION CONTROL EQUIPMENT : EUTREATMENTSYS-S3

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NOx	8.8 lbs./hr.[2]	Test Method	FGTURBINES-S3	V, 1-4.	**40 CFR 52.21 (c) and (d); 40 CFR, Part 60, Subpart GG**
NOx	33.0 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGTURBINES-S3	V, 1-4.	**40 CFR 52.21 (c) and (d); 40 CFR, Part 60, Subpart GG**
CO	13.1 lbs./hr.[2]	Test Method	FGTURBINES-S3	V, 5-8.	**40 CFR 52.21 (c) and (d)**
CO	57.2 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGTURBINES-S3	V, 5-8.	**40 CFR 52.21 (c) and (d)**
SO2	2.9 lbs./hr.[2]	Test Method	FGTURBINES-S3	V, 9-12.	**40 CFR 52.21 (c) and (d); 40 CFR, Part 60, Subpart GG**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
SO2	12.5 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGTURBINES-S3	V, 9-12.	**40 CFR 52.21 (c) and (d); 40 CFR, Part 60, Subpart GG**
HCl	1.9 lbs./hr.[1]	Test Method	FGTURBINES-S3	V, 13-16.	**R 336.1225**
HCl	8.2 tpy[1]	12-month rolling time period as determined at the end of each calendar month	FGTURBINES-S3	V, 13-16.	**R 336.1225**
VOC	2.4 lbs./hr.[2]	Test Method	FGTURBINES-S3	V, 17-20.	**40 CFR 52.21 (c) and (d)**
VOC	10.4 tpy[2]	12-month rolling time period as determined at the end of each calendar month	FGTURBINES-S3	V, 17-20.	**40 CFR 52.21 (c) and (d)**

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II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The sulfur content of the landfill gas shall not exceed 0.8% by weight. **(R336.1201(3) and 40 CFR Part 60, Subpart GG)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

NOx

1. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

2. The permittee shall verify the NOX emission rate from the FGTURBINES-S3, by testing, every 20 calendar quarters. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

3. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date. **R 336.2001(3))**

4. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test. **(R 336.2001(4))**

CO

5. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

6. The permittee shall verify the CO emission rate from the FGTURBINES-S3, by testing, every 20 calendar quarters. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

7. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date. **R 336.2001(3)**

8. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test. **(R 336.2001(4))**

SO2

9. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**
10. The permittee shall verify the SO2 emission rate from the FGTURBINES-S3, by testing, every 20 calendar quarters. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

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11. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date. **R 336.2001(3))**

12. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test. **(R 336.2001(4))**

HCl

13. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, R336.1225)**

14. The permittee shall verify the HCl emission rate from the FGTURBINES-S3, by testing, every 20 calendar quarters. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

15. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date. **R 336.2001(3))**

16. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test. **(R 336.2001(4))**

VOC

17. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

18. The permittee shall verify the HCl emission rate from the FGTURBINES-S3, by testing, every 20 calendar quarters. **R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

19. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date. **R 336.2001(3))**

20. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test. **(R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall monitor the sulfur content and nitrogen content of the landfill gas fired in FGTURBINES-S3 in accordance with the Custom Fuel Monitoring Program contained in Appendix 3. **40 CFR 60.334(a))**

See Appendix 3-S3

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. Report shall be postmarked or received by 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. Report shall be postmarked or received by appropriate AQD district office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

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See Appendix 8-S3

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
SV-03	48[2]	45[2]	**R 336.1225, 40 CFR 52.21 (c) and (d)**
SV-04	48[2]	45[2]	**R 336.1225, 40 CFR 52.21 (c) and (d)**
SV-05	48[2]	45[2]	**R 336.1225, 40 CFR 52.21 (c) and (d)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with 40 CFR Part 60, Subpart GG (NSPS GG) and 40 CFR Part 63, Subpart YYYY **(40 CFR Part 63, subpart YYYY)**

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).

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FGDUCTBURNERS-S3
FLEXIBLE GROUP CONDITIONS

DESCRIPTION Three (3) duct burners associated with three (3) EGT-Typhoon turbines used for heat recovery enhancement to operate a common steam turbine generator.

Emission Unit: EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, and EUDUCTBURNER3-S3.

POLLUTION CONTROL EQUIPMENT

1. NA.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NOx	1.6 lbs./hr.[2]	Test Method	Each of: EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, and EUDUCTBURNER3-S3.	V.1-4.	**40 CFR 52.21 (c) and (d)**
NOx	7.1 tpy[2]	12-month rolling average as determined at the end of each calendar month	Each of: EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, and EUDUCTBURNER3-S3	V, 1-4.	**40 CFR 52.21 (c) and (d)**
CO	2.2 lbs./hr.[2]	Test Method	Each of: EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, and EUDUCTBURNER3-S3	V, 5-8.	**40 CFR 52.21 (c) and (d)**
CO	9.7 tpy [2]	12-month rolling average as determined at the end of each calendar month	Each of: EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, and EUDUCTBURNER3-S3	V, 5-8.	**40 CFR 52.21 (c) and (d)**
SO2	0.3 lbs./hr.[2]	Test Method	Each of: EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, and EUDUCTBURNER3-S3	V, 9-12.	**40 CFR 52.21 (c) and (d)**

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SO2	1.5 tpy[2]	12-month rolling average as determined at the end of each calendar month	Each of: EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, and EUDUCTBURNER3-S3	V. 9-12.	**40 CFR 52.21 (c) and (d)**
HCl	0.8 lbs./hr.[1]	Test Method	Each of: EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, and EUDUCTBURNER3-S3	V, 13-16.	**R336.1225**
HCl	3.3 tpy[1]	12-month rolling average as determined at the end of each calendar month	Each of: EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, and EUDUCTBURNER3-S3	V, 13-16.	**R336.1225**
VOC	0.9 lbs./hr.[2]	Test Method	Each of: EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, and EUDUCTBURNER3-S3	V, 17-20.	**40 CFR 52.21(c) and (d)**
VOC	4.0 tpy[2]	12-month rolling average as determined at the end of each calendar month	Each of: EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, and EUDUCTBURNER3-S3	V, 17-20.	**40 CFR 52.21(c) and (d)**

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NA	NA	NA	NA	NA	NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. NA

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V. TESTING/SAMPLING

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

NOx

1. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

2. The permittee shall verify the NOX emission rate from the FGDUCTBURNERS-S3, by testing, every 20 calendar quarters. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

3. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date. **(R 336.2001(3))**

4. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test. **(R 336.2001(4))**

CO

5. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

6. The permittee shall verify the CO emission rate from FGDUCTBURNERS-S3, by testing, every 20 calendar quarters. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

7. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date. **(R 336.2001(3))**

8. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test. **(R 336.2001(4))**

SO2

9. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

10. The permittee shall verify the SO2 emission rate from FGDUCTBURNERS-S3, by testing, every 20 calendar quarters. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

11. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date. **(R 336.2001(3))**

12. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test. **(R 336.2001(4))**

HCl

13. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, R336.1225)**

14. The permittee shall verify the HCl emission rate from the FGDUCTBURNERS-S3, by testing, every 20 calendar quarters. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

15. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date. **(R 336.2001(3))**

16. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test. **(R 336.2001(4))**

VOC

17. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

18. The permittee shall verify the HCl emission rate from FGDUCTBURNERS-S3, by testing, every 20 calendar quarters. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

19. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date. **R 336.2001(3))**

20. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test. **(R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

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

1. With regards to FGDUCTBURNERS-S3, the following items are required to comply with the Federal Standards of Performance for New Stationary Sources as specified in 40 CFR, Part 50, Subparts A and Dc.
   a. Notification of anticipated start-up
   b. Notification of actual start-up
   c. Records of the amount of fuel combusted daily. **(R336.1201(3))²**

See Appendix 7-S3.

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-S3

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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. SV-03	48[2]	45[2]	**R336.1225; 40 CFR 52.21 (c) and (d)**
2. SV-04	48[2]	45[2]	**R336.1225; 40 CFR 52.21 (c) and (d)**
3. SV-05	48[2]	45[2]	**R336.1225; 40 CFR 52.21 (c) and (d)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subpart A and 40 CFR Part 60, Subpart Dc. **(40 CFR Part 60, Subparts A and Dc)**

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).

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FGGRSCOLDCLEANERS-S3
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(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: EUGRSCOLDCLEANERS-S3

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. 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(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(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:

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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

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(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-S3

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VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

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FGGRSRULE290-S3
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.

Emission Unit: EUGRSRULE290-S3

POLLUTION CONTROL EQUIPMENT

I. EMISSION LIMIT(S)

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(i))**

2. Each emission unit that the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(a)(ii))**

   a. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(ii)(A))**

   b. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 microgram per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(B))**

   c. For carcinogenic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(C))**

   d. The emission unit shall not emit any air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(a)(ii)(D))**

3. Each emission unit that emits only noncarcinogenic particulate air contaminants and other air contaminants that are exempted under Rule 290(a)(i) and/or Rule 290(a)(ii), if all of the following provisions are met: **(R 336.1290(a)(iii))**

   a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than

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or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have an exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(a)(iii)(A))**

b. The visible emissions from the emission unit are not more than 5 percent opacity in accordance with the methods contained in Rule 303. **(R 336.1290(a)(iii)(B))**

c. The initial threshold screening level for each particulate air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(a)(iii)(C))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The provisions of Rule 290 apply to each emission unit that is operating pursuant to Rule 290. **(R 336.1290)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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 shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DNRE, AQD Rule 290, Permit to Install Exemption Record form (EQP 3558) or an alternative format that is approved by the AQD District Supervisor. **(R 336.1213(3))**

   a. Records identifying each air contaminant that is emitted. **(R 336.1213(3))**

   b. Records identifying if each air contaminant is controlled or uncontrolled. **(R 336.1213(3))**

   c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic. **(R 336.1213(3))**

   d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(a)(ii) and (iii). **(R 336.1213(3))**

   e. Material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in sufficient detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. **(R 336.1213(3), R 336.1290(c))**

2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information. **(R 336.1213(3))**

   a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit. **(R 336.1290(b), R 336.1213(3))**

   b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate**. (R 336.1213(3))**

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3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

See Appendix 4-S3

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-S3

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

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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).

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APPENDICES

Appendix 1-S3: Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

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

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*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

Appendix 2-S3. Schedule of Compliance

NA

Appendix 3-S3. Monitoring Requirements

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in Table F-3.2.

Stationary Gas Turbine System
Conditions for Custom Fuel Monitoring Schedule

1. Monitoring of fuel nitrogen content shall not be required while landfill gas is the only fuel fired in the gas turbine.

2. Sulfur Monitoring

   a. Analysis for fuel sulfur content of the landfill gas shall be conducted using the Drager Tube System for hydrogen sulfide.

   b. Effective April 20, 1998, hydrogen sulfide monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel hydrogen sulfide content, and indicates consistent compliance with sulfur requirement of 40 CFR 60.333, then hydrogen sulfide monitoring shall be conducted once per quarter for six quarters.

   c. If after the monitoring required in Item 2(b) or 2(c) above, the hydrogen sulfide content of the fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333 sample analysis shall be conducted twice per year. This monitoring shall be conducted during the first and third quarters of each calendar year.

   d. Should any sulfur analysis as required in Items 2(b) or 2(c) above indicate noncompliance with 40 CFR 60.333, Gas Recovery Systems, Inc. (formerly Browning-Ferris Gas Services, Inc.) shall notify the Michigan Department of Natural Resources and Environment (DNRE) of such excess emissions and the custom schedule shall re reexamined by the U.S. Environmental Protection Agency. Hydrogen sulfide monitoring shall be conducted weekly during the interim period when this custom schedule is being reexamined.

3. If there is a change in fuel supply, GRS will notify the DNRE of such change for reexamination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Hydrogen sulfide monitoring shall be conducted weekly during the interim period when this custom schedule is being reexamined.

4. Records of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of three years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.

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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-S3. 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-S3. 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-S3. Permits to Install

The following table lists any PTIs issued since the effective date of previously issued ROP No. 199600293:

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
274-03B	Solar Taurus Model 60 gas turbine	EUTURBINE4-S3

Appendix 7-S3. 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 Table FGTURBINES-S3.

To demonstrate compliance with the NOx emission rate, the permittee shall continuously monitor and record the flow rate and heat content of the landfill gas burned in each of the four gas turbines, three duct burners, and both flares. The permittee shall calculate a monthly NOx emission rate from each of the four gas turbines, three duct burners, and both flares with the following equation:

$$\frac{x\ \text{Btu}}{\text{scf}} \times \frac{Q\ \text{scf}}{\text{month}} \times \frac{y\ \text{lb NOx}}{\text{MMBtu}} \times \frac{\text{Ton}}{2{,}000} = \frac{\text{Ton NOx}}{\text{month}}$$

x= average Btu/scf of the landfill gas for the month
Q= flow rate of the landfill gas to the thermal oxidation device for the month
y= 0.1428 lbs NOx/MMBtu for EUTURBINE1-3-S3; and
y= 0.1265 lbs NOx/MMBtu for EUTURBINE4-S3; or
y= 0.1 lbs NOx/MMBtu for EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2; or

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y= 0.08 lbs NOx/MMBtu for EUDUCTBURNER1-S3, EUDUCTBURNER2-S3, and EUDUCTBURNER3-S3

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Appendix 8-S3. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the DNRE Report Certification form (EQP 5736) and DNRE 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.

Appendix 9-S3. Preventative Maintenance Plan (PMP) /Corrective Action Plan

The Permittee shall implement the Preventative Maintenance Plan required in EUTREATMENTSYS-S3. The Preventative Maintenance Plan and its associated recordkeeping format have been approved by the AQD through approval of this RO permit. 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.

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Gas Recovery Systems, LLC

Arbor Hills Electric
SRN: N2688

Landfill Gas Treatment System
Preventative Maintenance Plan

September 2009

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INTRODUCTION

Gas Recovery Systems, LLC (GRS) operates a landfill gas-to-energy facility at the Arbor Hills Landfill facility in Northville, Michigan. Arbor Hills is subject to the United States Environmental Protection Agency (USEPA) New Source Performance Standards (NSPS). GRS receives all the gas collected from the adjacent Arbor Hills Landfill and processes it through a compression and treatment system. After the treatment system processes the gas it is sent to gas combustion turbines and a steam turbine.

GRS considers its landfill gas treatment system a means of controlling the landfill gas collected at the facility. The basis of Arbor Hills' determination is numerous rulings by the Air Protection Division of the USEPA. NSPS allows landfill gas to be controlled by routing the collected gas to a treatment system that processes the gas for subsequent sale or use. The USEPA considers dewatering, filtering through a 10 micron screen, and compression for combustion in energy recovery devices such as boilers, process heaters, turbines, or internal combustion engines to satisfy the definition of treatment in 40 CFR 60.752(b)(2)(iii)(C).

Below is a summary of the treatment equipment which gas travels through at the facility:

- The landfill gas is filtered to remove particulate matter that may interfere with good combustion of the landfill gas.
- Up to 9,600 SCFM of landfill gas (LFG) enters the fuel gas compressor(s). The LFG is compressed to the pressure required by the turbines (typically 260 psi). The LFG temperature is raised a minimum of 20 degrees Fahrenheit above the dew point by compression.
- The heated and compressed LFG passes through an air-to-gas heat exchanger and a gas-to-gas heat exchanger to condense water vapor. A refrigeration based chiller is installed and can also operate intermittently to further reduce the water vapor if necessary.
- Particulates and water are removed by a minimum of a 10-micron coalescing filter.
- After removal of liquids and particulates, the LFG passes through a final gas-to-gas heat exchanger. The heat exchanger reheats the LFG to approximately 20°F above its dew point. This prevents any condensation of the remaining water vapor in the LFG in the piping or turbine fuel handling systems.
- All condensate produced by the process is disposed of by approved methods.

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1.0 EQUIPMENT FUNCTION AND MONITORING

Each piece of equipment provides a specific function in the treatment process. GRS monitors various parameters at each piece of equipment on a regular basis to determine that the equipment is performing its intended function. The monitoring and recording of the data from the sensors and transmitters on the treatment system is variable with a normal frequency of approximately 10 seconds. Under certain conditions the monitoring frequency may reach 1 minute between updates, however this is an uncommon occurrence. All sensors on the treatment system update at this same frequency. GRS will maintain records of all monitoring data as required by 40 CFR 60.758(c.)

The following summarizes the function of each piece of equipment and parameters monitored to determine that it is operating as designed:

Main Gas Compressors – The four main gas compressors move the landfill gas. They also apply a vacuum to the well field and provide pressure for the landfill gas treatment system and subsequent end uses.

The temperature of the incoming and outgoing landfill gas is measured and recorded. The incoming landfill gas has an average temperature of 65-77 degrees Fahrenheit. The gas is then heated to approximately 210-230 degrees Fahrenheit before it passes through the Air-to-Air Heat Exchanger described below. The heat exchanger then cools the gas to the current ambient air temperature plus 25 degrees Fahrenheit. Thus the outlet will always be a minimum of 20 degrees less than the inlet temperature. Compressor exit temperatures greater than 250 °F will cause an alarm to be recorded in the event log.

Air-to-Air Heat Exchanger – The purpose of the heat exchangers is to cool the gas. The gas flows through the exchanger's tubes while a fan blows air. The differential pressure on the unit is monitored on a daily basis. If the differential pressure is greater than 5 psig, the unit is shutdown and cleaned.

10 micron Coalescing Filter – The coalescing filter removes particulate from the gas. Particulate with a diameter of greater than 10 microns are removed by this filter. The differential pressure on the unit is monitored on a daily basis. If the differential pressure is greater than 5 psig, the unit is shutdown and the filter changed. Pressure drops of less than 5 inches of water column across the Coalescing Filter would indicate a potential rupture or breach of the internal element. Should this condition occur, the system will be shut down and a visual observation of the element performed to ensure that treatment is maintained. If the element is found to be damaged or defective, it will be immediately replaced.

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2.0 MAINTENANCE ACTIVITIES

As discussed previously, staff observes the operation of the treatment system on a regular basis. If an operator observes that equipment is operating abnormally, or if it is operating outside normal parameters, then a maintenance action will be taken. Below is a summary of anticipated maintenance activities that might occur. This list is not comprehensive, and at all times the facility reserves the right to conduct additional preventative maintenance activities in order to ensure the treatment system functions in accordance with its originally designed intent.

Main Gas Compressors – If the compressors are not able to maintain enough pressure to supply the end user of if they are not applying a vacuum to the well field, troubleshooting and repair the compressor will begin. Compressor bearings, motors and other parts are replaced on an as needed basis in order to maintain compressor performance. Daily facility logs will document when maintenance is conducted on this piece of equipment. Typical maintenance activities should take less than 72 hours.

Air-to-Air Heat Exchanger – As stated before, the facility monitors the differential pressure on the unit. If the differential pressure is higher than normal operating parameters, staff will expose the tubes used for cooling and clean using a pressure washer (or equivalent). Daily logs will document when maintenance is conducted on this piece of equipment. Typical maintenance activities should be less than 24 hours.

10 micron Coalescing Filter – As stated before, the facility monitors the differential pressure on the unit. If the differential pressure is higher than normal operating parameters, GRS staff will change the filter. Daily logs will document when maintenance is conducted on this piece of equipment. Typical maintenance activities should be less than 8 hours.

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

March 24, 2014

PERMIT TO INSTALL
179-13

ISSUED TO
BFI Waste Services of North America, LLC

LOCATED AT
10690 West Six Mile Road
Northville, Michigan

IN THE COUNTY OF
Washtenaw

STATE REGISTRATION NUMBER
N2688

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **February 21, 2014**	
DATE PERMIT TO INSTALL APPROVED: **March 24, 2014**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

Section **Page**

Common Abbreviations / Acronyms

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	BTU	British Thermal Unit
BACT	Best Available Control Technology	°C	Degrees Celsius
CAA	Clean Air Act	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
CO_2e	Carbon Dioxide Equivalent	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	kW	Kilowatt
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO_x	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	PM with aerodynamic diameter ≤10 microns
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	PM with aerodynamic diameter ≤ 2.5 microns
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonably Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO_2	Sulfur Dioxide
SCR	Selective Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TAC	Toxic Air Contaminant	µg	Microgram
TEQ	Toxicity Equivalence Quotient	VOC	Volatile Organic Compound
VE	Visible Emissions	yr	Year

* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install 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 this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit 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 R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. 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 Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department 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 condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

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

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. 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 R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUENCLOSEDFLARE1-S2	2,600 CFM enclosed flare for controlling excess landfill gas.	1991	FGENCLOSEDFLARES-S2
EUENCLOSEDFLARE2-S2	4,600 CFM enclosed flare for controlling excess landfill gas.	1994	FGENCLOSEDFLARES-S2
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

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
FGENCLOSEDFLARES-S2	An enclosed flare is considered an enclosed combustor which is an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air.	EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2

The following conditions apply to: FGENCLOSEDFLARES-S2

DESCRIPTION: An enclosed flare is considered an enclosed combustor which is an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air.

Emission Units: EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing/ Monitoring Method	Underlying Applicable Requirements
1. NMOC	Reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen[2]	Daily	EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2	SC V.1-4	40 CFR 60.752(b)(2)(iii)(B), 40 CFR 60.754(d), 40 CFR 60.758(b)(2)
2. NOx	20.0 lbs/hr[2]	Test Protocol*	EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2	SC V.5-8	40 CFR 60.752(b)(2)(iii)(B), 40 CFR 60.754(d), 40 CFR 60.758(b)(2)
3. NOx	87.6 tpy[2]	12-month rolling time period as determined at the end of each calendar month.	EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2	SC V.5-8	40 CFR 60.752(b)(2)(iii)(B), 40 CFR 60.754(d), 40 CFR 60.758(b)(2)
4. CO	43.2 lbs/hr[2] (15.6 lb/hr for flare1-S2 and 27.6 lb/hr for flare 2-S2)	Test Protocol*	EUENCLOSEDFLARE1-S2 and EUENCLOSEDFLARE2-S2 combined	SC V.9-12	40 CFR 60.752(b)(2)(iii)(B), 40 CFR 60.754(d), 40 CFR 60.758(b)(2)
5. SO2	38.9 lbs/hr[2] (14.0 lb/hr for flare 1-S2 and 24.9 lb/hr for flare 2-S2)	Test Protocol*	EUENCLOSEDFLARE1-S2 and EUENCLOSEDFLARE2-S2 combined	SC V.13-16	40 CFR 60.752(b)(2)(iii)(B), 40 CFR 60.754(d), 40 CFR 60.758(b)(2)
6. HCl	6.0 lbs/hr[1]	Test Protocol*	EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2	SC V.17-20	R336.1225

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing/ Monitoring Method	Underlying Applicable Requirements
7. HCl	26.1 tpy[1]	12-month rolling time period as determined at the end of each calendar month.	EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2	SC V.17-20	R336.1225
8. VOC	7.1 lbs/hr[2]	Test Protocol*	EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2	SC V.21-24	40 CFR 60.752(b)(2)(iii)(B), 40 CFR 60.754(d), 40 CFR 60.758(b)(2)
9. VOC	31.2 tpy[2]	12-month rolling time period as determined at the end of each calendar month.	EUENCLOSEDFLARE1-S2, EUENCLOSEDFLARE2-S2	SC V.21-24	40 CFR 60.752(b)(2)(iii)(B), 40 CFR 60.754(d), 40 CFR 60.758(b)(2)
*Test Protocol shall determine the averaging time.					

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall equip and maintain each flare with a continuous temperature monitor. **(R336.1201(3), R 336.1213(3))[2]**

2. The temperature monitor shall be calibrated or replaced on an annual basis.**(R336.1201(3), R 336.1213(3))[2]**

3. The permittee shall monitor and record the flaring duration each time the enclosed ground flares are ignited in a manner and with instrumentation acceptable to the Air Quality Division. All of the accumulated data shall be kept on file for a period of at least two years and made available to the Air Quality Division upon request.**(R336.1201(3), R336.1213(3))[2]**

4. The permittee shall operate the enclosed flare at all times when the collected gas is routed to the enclosed flare. **(40 CFR 60.753(f), 40 CFR 63.1955(a))**

5. The permittee shall operate control system such that all collected gases are vented to a control system designed and operated in accordance 60.752(b)(2)(iii), as specified in SC III.6. In event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within one hour. **(40 CFR 60.753(e), 40 CFR 63.1955(a))**

6. The permittee shall route all collected non treated gas to the enclosed flare or another control system designed and operated to reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. **(40 CFR 60.752(b)(2)(iii)(B), 40 CFR 63.1955(a))**

    a. *The enclosed flare shall be operated within the parameter ranges established during the most recent performance test in compliance with §60.754(d). The operating parameters to be monitored are specified in §60.756 (below in condition **VI.1.**).* ***(40 CFR 60.752(b)(2)(iii)(B)(2), 40 CFR 63.1955(a))***

7. The provisions of NSPS WWW apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 1 hour for the enclosed flare. **(40 CFR 60.755(e), 30 CFR 63.1955(a))**

8. The permittee shall operate a flame detection system in conjunction with the flare in the event that the flame is extinguished, shut-in of all lines feeding the flare shall commence automatically. Operation of the flare shall not be restarted unless the non-continuous pilot flame is reignited. Pilot fuel shall only be propane. **(R336.1201(3), R 336.1213(3))[2]**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

NMOC

1. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.[2] **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

2. The permittee shall verify the NMOC emission rate from the FGENCLOSEDFLARES-S2, by testing, every 20 calendar quarters.[2] **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

3. The permittee shall notify the District Supervisor and the Technical Programst Unit no less than seven days prior to the anticipated test date.[2] **(R 336.2001(3))**

4. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test.[2] **(R 336.2001(4))**

NOx

5. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

6. The permittee shall verify the NOx emission rate from the FGENCLOSEDFLARES-S2, by testing, every 20 calendar quarters.[2] **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

7. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.[2] **(R 336.2001(3))**

8. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test.[2] **(R 336.2001(4))**

CO

9. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.[2] **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

10. The permittee shall verify the CO emission rate from the FGENCLOSEDFLARES-S2, by testing, every 20 calendar quarters.[2] **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

11. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.[2] **(R 336.2001(3))**

12. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test.[2] **(R 336.2001(4))**

SO2

13. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.[2] **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

14. The permittee shall verify the SO2 emission rate from the FGENCLOSEDFLARES-S2, by testing, every 20 calendar quarters.[2] As an alternative to stack testing, the permittee may demonstrate compliance with the SO2 emission limits by analyzing the total sulfur content in the landfill gas, assuming 100% is oxidized into SO2, and calculating the SO2 emission rate. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

15. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.[2] **(R 336.2001(3))**

16. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test.[2] **(R 336.2001(4))**

HCl

17. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.[2] **(R 336.2001, R 336.2003, R336.1225)**

18. The permittee shall verify the HCl emission rate from the FGENCLOSEDFLARES-S2, by testing, every 20 calendar quarters.[2] As an alternative to stack testing, the permittee may demonstrate compliance with the HCL emission limits by analyzing the total chloride content in the landfill gas, assuming 100% is oxidized into HCL, and calculating the HCl emission rate. **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

19. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.[2] **(R 336.2001(3))**

20. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test.[2] **(R 336.2001(4))**

VOC

21. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.[2] **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

22. The permittee shall verify the VOC emission rate from the FGENCLOSEDFLARES-S2, by testing, every 20 calendar quarters.[2] **(R 336.2001, R 336.2003, 40 CFR 52.21 (d))**

23. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.[2] **(R 336.2001(3))**

24. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test.[2] **(R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of 5 years. **(R 336.1201(3))**

1. The permittee shall calibrate, maintain, and operate the enclosed flare according to the manufacturer's specifications, including the following:
   a. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of plus or minus 1 percent of the temperature being measured expressed in degrees centigrade or plus or minus 0.5 degrees centigrade, whichever is greater. **(40 CFR 60.756(b)(1), 40 CFR 63.1955(a))**
   b. A device that records flow to or bypass of the control device. The permittee shall either:
      i. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; **(40 CFR 60.756(b)(2)(i), 40 CFR 63.1955(a)) or**
      ii. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line. **(40 CFR 60.756(b)(2)(ii), 40 CFR 63.1955(a))**

2. Except as provided in §60.752(b)(2)(i)(B), the permittee shall keep readily accessible continuous records of the equipment operating parameters specified to be monitored in §60.756 (above in condition VI.1.), as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. **(40 CFR 60.758(c))**
   a. The following constitute exceedances that shall be recorded and reported under §60.757(f) (above in condition **III.4.**)
      i. All 3-hour periods of operation during which the average combustion temperature was more than 28 °C (50° F) below the average combustion temperature during the most recent performance test at which compliance with §60.752(b)(2)(iii) (above in condition **III.6.**) was determined. **(40 CFR 60.758(c)(1)(i))**
         (1) 3-hour block averages are calculated in the same way as they are calculated in 40 CFR part 60 subpart WWW, except that the data collected during the events listed below are not to be included in any average computed for 40 CFR Part 63, subpart AAAA. **(40 CFR 63.1975)**
            (a) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments. **(40 CFR 63.1975(a))**
            (b) Startups. **(40 CFR 63.1975(b))**
            (c) Shutdowns. **(40 CFR 63.1975(c))**
            (d) Malfunctions. **(40 CFR 63.1975(d))**

3. The permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified in §60.756 (above in condition **VI.1.**). **(40 CFR 60.758(c)(2)**

4. The following information shall be recorded:
   a. The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test. **(40 CFR 60.758(b)(2)(i))**
   b. The percent reduction of NMOC determined as specified in 40 CFR 60.752(b)(2)(iii)(B) achieved by the control device. **(40 CFR 60.758(b)(2)(ii))**

5. The permittee shall keep up-to-date, readily accessible records of all control system exceedances of the operational standards in §60.753 (above in conditions **III.4. and III.5.**). **(40 CFR 60.758(e))**

VII. REPORTING

1. The permittee shall submit to the appropriate AQD District Office semi-annual reports for the gas collection system. Reports shall be received by 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 enclosed combustion devices and flares, reportable exceedances are defined under §60.758(c). **(40 CFR 60.757(f), 40 CFR 63.1980(a), 40 CFR 63.1955(a))** The semi-annual report shall contain:
   a. Value and length of time for exceedance of applicable parameters monitored in §60.756(b) (above in condition **VI.1.**). **(40 CFR 60.757(f)(1), 40 CFR 63.1980(a), 40 CFR 63.1955(a))**
   b. 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 as specified in §60.756 (above in condition **VI.1.b.**). **(40 CFR 60.757(f)(2), 40 CFR 63.1980(a), 40 CFR 63.1955(a))**
   c. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating. **(40 CFR 60.757(f)(3), 40 CFR 63.1980(a), 40 CFR 63.1955(a))**

2. The permittee shall submit an equipment removal report to the AQD 30 days prior to removal or cessation of operation of the enclosed flare. **(40 CFR 60.757(e))**
   a. The equipment removal report shall contain all of the following items:
      i. A copy of the closure report submitted in accordance with §60.757(d) (above in condition **VII.5.**). **(40 CFR 60.757(e)(1)(i), 40 CFR 63.1955(a))**
      ii. A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired **(40 CFR 60.757(e)(1)(ii), 40 CFR 63.1955(a))**
      iii. Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year. **(40 CFR 60.757(e)(1)(iii), 40 CFR 63.1955(a))**
   b. Additional information may be requested as may be necessary to verify that all of the conditions for removal in §60.752(b)(2)(v) have been met. **(40 CFR 60.757(e)(2), 40 CFR 63.1955(a))**

3. The permittee shall submit the startup, shutdown, and malfunction (SSM) report to the appropriate AQD district office and it shall be delivered or postmarked by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(40 CFR 63.10(a)(5), 40 CFR 63.10(d)(5))**

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-01	156[2]	50[2]	R336.1225, 40 CFR 52.21 (c) and (d)
2. SV-02	156[2]	50[2]	R336.1225, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENTS

1. Compliance is determined in the same way it is determined for 40 CFR Part 60, subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data collected under §60.756(b) (1), as specified in SC VI.1, are used to demonstrate compliance with the operating conditions for the enclosed flare. The permittee shall have developed and implemented a written SSM plan according to the provision in 40 CFR 63.6(e)(3) for FGENCLOSEDFLARES-S2. A copy of the SSM plan shall be maintained on site. **(40 CFR 63.1960)**

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).

Municipal Solid Waste Landfill Gas Collection and Control System

Startup, Shutdown, and Malfunction Plan

Prepared in accordance with the:

National Emission Standards for Hazardous Air Pollutants
40 C.F.R. §63.6(e)(3)

Prepared for:

Facility: Arbor Hills Landfill, East

Address: 10690 Six Mile Road
Northville, MI 48167

Date: January 16, 2003

This document identifies the procedures for conducting startups, shutdowns or addressing malfunctions of the municipal solid waste landfill gas collection and control system in a timely and safe manner.

REPUBLIC SERVICES, INC.SM

Revision: 2
Revision Date: 6-30-2014

Revised by: Jennifer Baker, AQSI

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1 INTRODUCTION

1.1 Purpose

The purpose of this plan is to fulfill the obligations set forth in the NESHAP for Municipal Solid Waste Landfills (40 CFR 63 Subpart AAAA) and to provide site personnel with a flexible plan to minimize emissions of hazardous air pollutants during startups, shutdowns or malfunctions. This document identifies the procedures for conducting startups, shutdowns or addressing malfunctions of the gas collection and control equipment or processes subject to this plan in a timely and safe manner. In addition, specific record-keeping and reporting procedures are described.

1.2 Excluded Sources

In order to properly document that the site personnel have followed the plan as required, a single form to document all start-up, shutdown, and malfunction (SSM) events has been prepared in a checklist format. Except as specifically excluded below, all components of the gas collection and control system as well as the continuous monitoring system for the control device(s) are to follow the SSM Plan:

The following items are excluded from this SSM Plan:

1. Exceedances at Individual Wells for Pressure, Oxygen or Nitrogen, Temperature.

2. Surface Emissions Monitoring Exceedances (readings 500 ppm or greater).

3. Portable and/or Intermittent Field Monitoring Equipment (i.e., GEM500, FID).

4. Shutdowns of the flare which are followed by successful re-start sequences. This is done automatically, and is part of the control device's normal operating procedures.

5. Temporary (less than five days) closure of control valves within the landfill gas collection system in order to isolate portion of the system for troubleshooting or maintenance.

6. Combustion devices utilizing "treated" landfill gas *(12/8/2003 USEPA guidance, Regional EPA Determinations)*.

The Advanced Disposal -Arbor Hills Landfill, Inc. provides landfill gas to Fortistar-Arbor Hills Energy, LLC for treatment and subsequent use as fuel in the production of electricity by turbines and duct burners.

1.3 Record Keeping and Reporting

Completed SSM forms must be kept in the site files for use in the semi-annual SSM Plan Report. Semi-annual SSM Plan reports will be submitted in accordance with Michigan Renewable Operating Permit Number MI-ROP-N2688-2011.

This **Startup, Shutdown and Malfunction Plan** must be revised if the procedures described herein do not address or adequately address any startup or shutdown procedure or malfunction that occurs. Revisions to the plan must be discussed in the semi-annual SSM Plan Report.

A copy of the original plan and all revisions must be kept at the facility for at least five (5) years.

2 FACILITY DESCRIPTION

2.1 Facility Description

The Advanced Disposal-Arbor Hills Landfill, Inc. is an existing affected source under 40 CFR 63 Subpart AAAA. The Advanced Disposal-Arbor Hills Landfill, Inc. is an active landfill occupying approximately 294 acres. The landfill has installed and currently operates a Gas Collection and Control System (GCCS) at the facility. Landfill gas (LFG) is extracted from the landfill and conveyed to one of two enclosed flares or a gas-to-energy facility.

Fortistar Methane Group - Arbor Hills Energy, LLC. (FMG) utilizes the LFG at the gas to energy facility for the production of electricity. FMG is a separate corporate entity, which has contracted with BFI Waste Systems of North America, LLC. to use the gas generated from the landfill in its landfill gas to energy facility. The gas to energy facility consists of a gas treatment system, turbines, and duct burners.

Two enclosed flares are used at the facility as back-up control devices to the gas to energy facility. Both flares are owned by BFI Waste Systems of North America, LLC.

FMG owns and operates the landfill gas to energy plant at the facility. The turbines at the gas to energy plant operate continuously. The duct burners operate when the boilers demand additional heat input. The number of gas turbines and/or turbine/duct burners in operation at any one time is variable, and dependent on landfill gas flow and quality, demand and limit of outputs to the electrical grid, scheduled overhauls, or other routine maintenance.

2.2 Treatment System

FMG owns and operates the landfill gas treatment system used to treat landfill gas prior to use in the turbines and duct burners. The treatment system process prior to entering the plant to the turbines or duct burners involves: mechanical scrubbers that remove water, compressors followed by air coolers, heat exchangers, chillers that uses a refrigerant, and a 10 micron coalescent filter. Due to the high pressure conditions in the treatment system, the chiller is only run intermittently. If the treatment system is not operational, neither the turbines nor duct burners are operational.

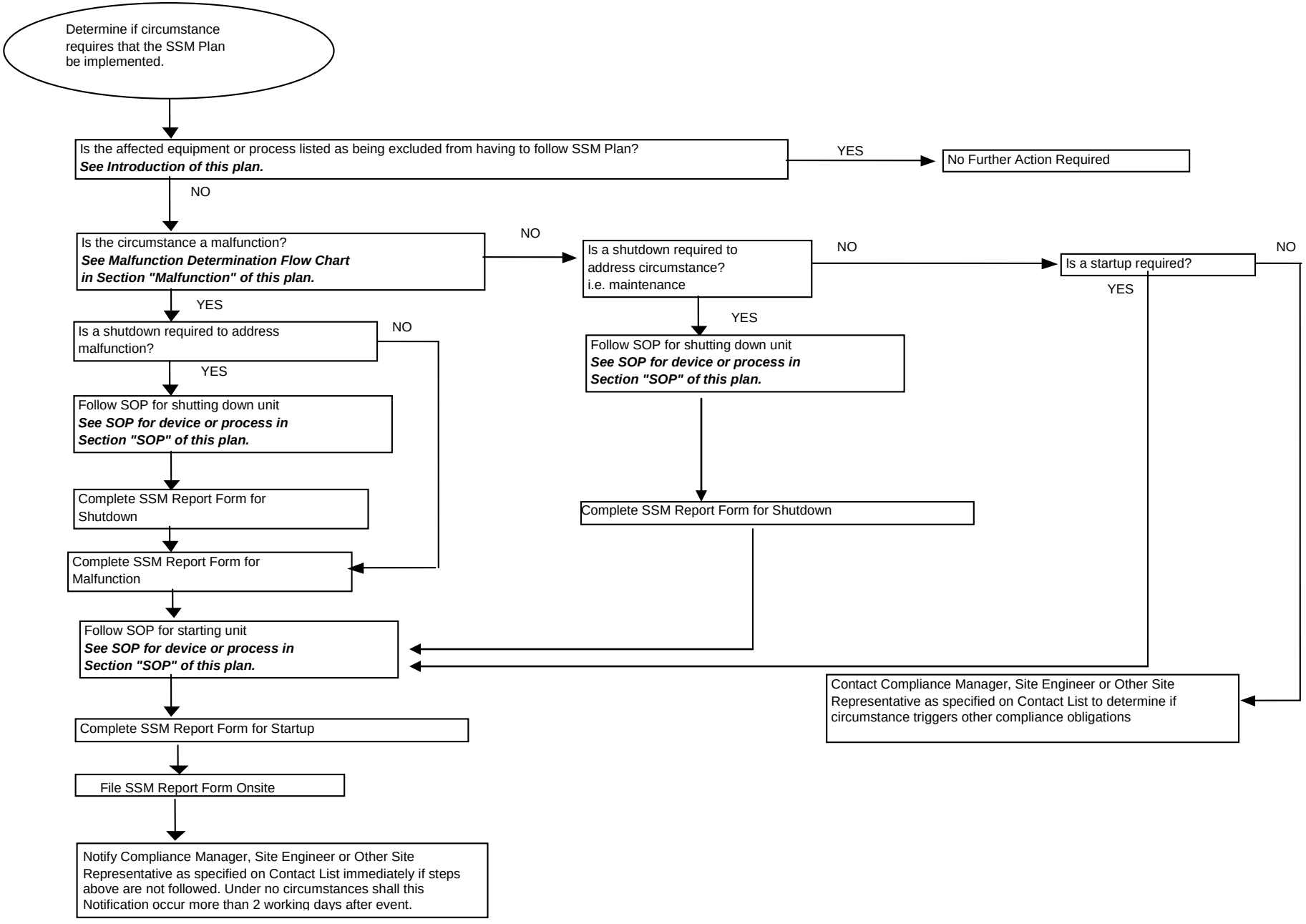
3 INITIAL ANNUAL/ANNUAL REPORT REQUIREMENTS

3.1 GCCS Operator Responsibilities

All persons or parties undertaking the operations or maintenance of the GCCS must adhere to procedures outlined in this SSM Plan as well as the standard operating procedures (SOP) for any start-up, shutdown, or malfunction defined in Section 4.0 of this plan. The following flow chart outlines the procedures to follow when the GCCS is not fully operational.

Startup, Shutdown, Malfunction Plan –
Gas Collection and Control System Operator Responsibilities

All persons or parties undertaking the operations or maintenance of the gas collection and control system must adhere to the following procedures.



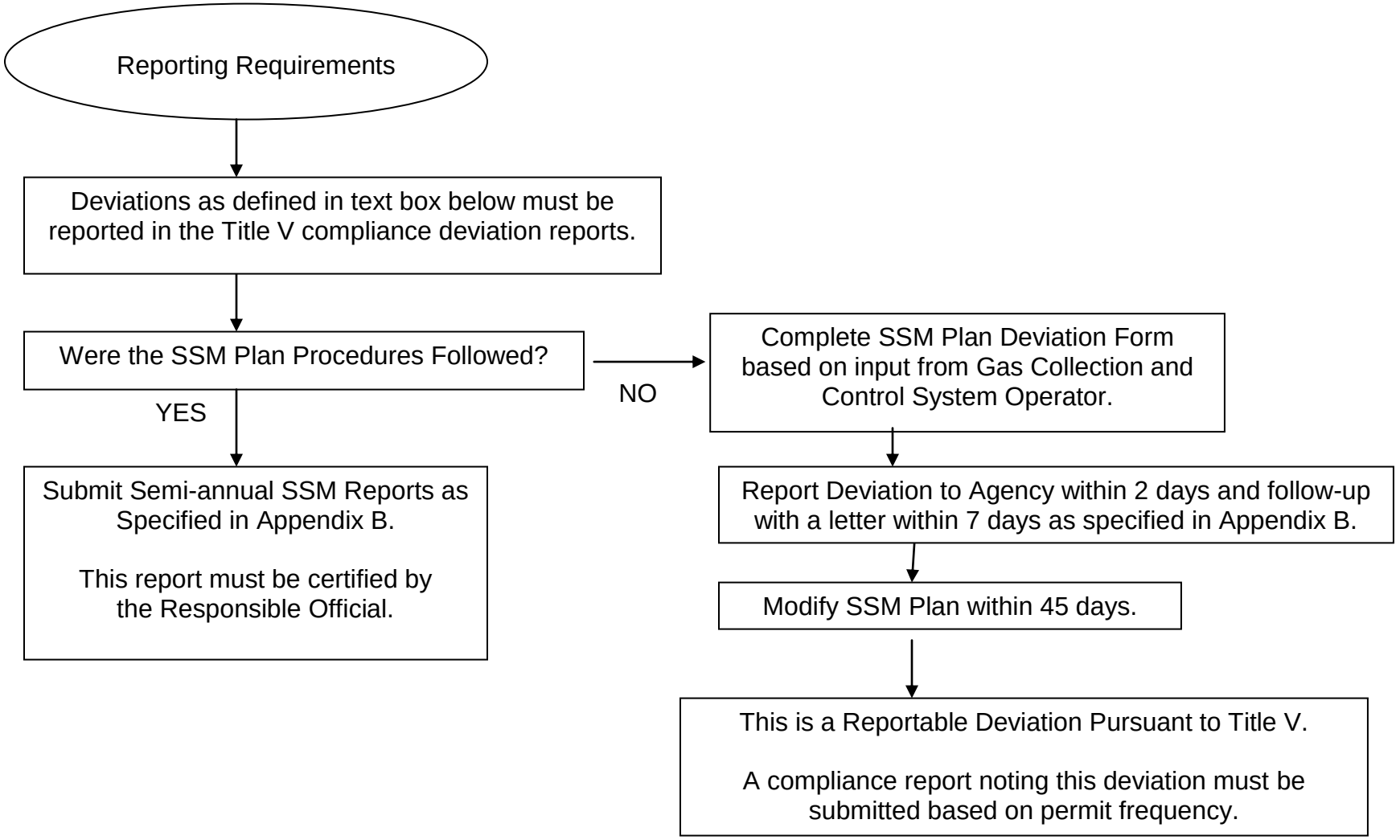
3.2 Compliance Manager/ Site Engineer Responsibilities

All persons or parties undertaking the reporting of deviations from the SMM Plan or the Title V permit must adhere to procedures outlined in this SSM Plan. The following flow chart outlines how to identify when reporting is necessary and procedures for reporting of deviations from the SSM Plan.

Startup, Shutdown, Malfunction Plan –

Compliance Manager/ Site Engineer Responsibilities

All persons or parties undertaking the reporting of deviations must adhere to the following procedures.



A ***Deviation*** Occurs When:*:*

1. The control device operation parameter boundaries described in 40 CFR 60.758(c)(1) are exceeded, or
2. 1 hour or more of the hours during a 3-hour block averaging period does not constituted a valid hour of data. A valid hour of data must have measured values for at lest three-13 minute monitoring periods within the hour, or
3. An SSM Plan is not developed, implemented, or maintained on site.

(40 CFR 63.1965)

3.3 CONTACTS

The following person(s) should be contacted (in order of priority) for any events requiring the implementation of the SSM plan. If unable to reach a person, contact next person on list:

	Title	Company	Office Phone No.
1	LFG Operations Manager	FMG	248-305-7774
2	Landfill Operations Manager	Advanced Disposal	248-349-7230
3	Environmental Office	BFI-Republic Advanced Disposal	734-348-5161 513-284-3615

The following person(s) should be contacted (in order of priority) if the SSM plan was not followed, the event resulted in the continued release of landfill gas to the air, or the event was not a malfunction, startup or shutdown as specified in the plan. If unable to reach a person, contact next person on list:

	Title	Company	Office Phone No.
1	Landfill Operations Manager	Advanced Disposal	248-349-7230
2	Area Environmental Affairs	BFI-Republic Advanced Disposal	248-418-1025 513-284-3615
3	Responsible Official	BFI-Republic Advanced Disposal	734-348-5151 248-349-7230

4 STANDARD OPERATING PROCEDURES

4.1 Start-up SOP

A **Startup** means the setting in operation of an affected source or portion of an affected source for any purpose. (§63.2)

Standard Operating Procedure: Start-up

1. Ensure that there are no unsafe conditions present.
2. Contact Plant Operator in charge.
3. Ensure that the system is ready to start by one or more of the following:
    a. Valves are in correct operating position.
    b. Levels, pressures, temperatures are within normal starting range.
    c. Alarms are cleared.
    d. Power is on and available to control panel and energized equipment.
    e. Emergency Stop is de-energized.
4. Initiate start sequence.
5. Observe that system achieves normal operating ranges for levels, pressures, and temperatures.
6. Refer to Operations and Maintenance Manuals if necessary.

4.2 Shutdown SOP

A **Shutdown** means the cessation of an affected source or portion of an affected source or portion of an affected source for any purpose. (§63.2)

Standard Operating Procedure: Shutdown

1. Ensure that there are no unsafe conditions present.
2. Contact Plant Operator in charge.
3. Initiate shutdown sequence by one or more of the following:
    a. Press Emergency Stop if necessary.
    b. Close On/ Off switch(es) or Push On/ Off button(s).
    c. Close adjacent valves if necessary.
4. Observe that system achieves normal shutdown ranges for levels, pressures, and temperatures.
5. Refer to Operations and Maintenance Manuals if necessary.

4.3 Malfunction SOP

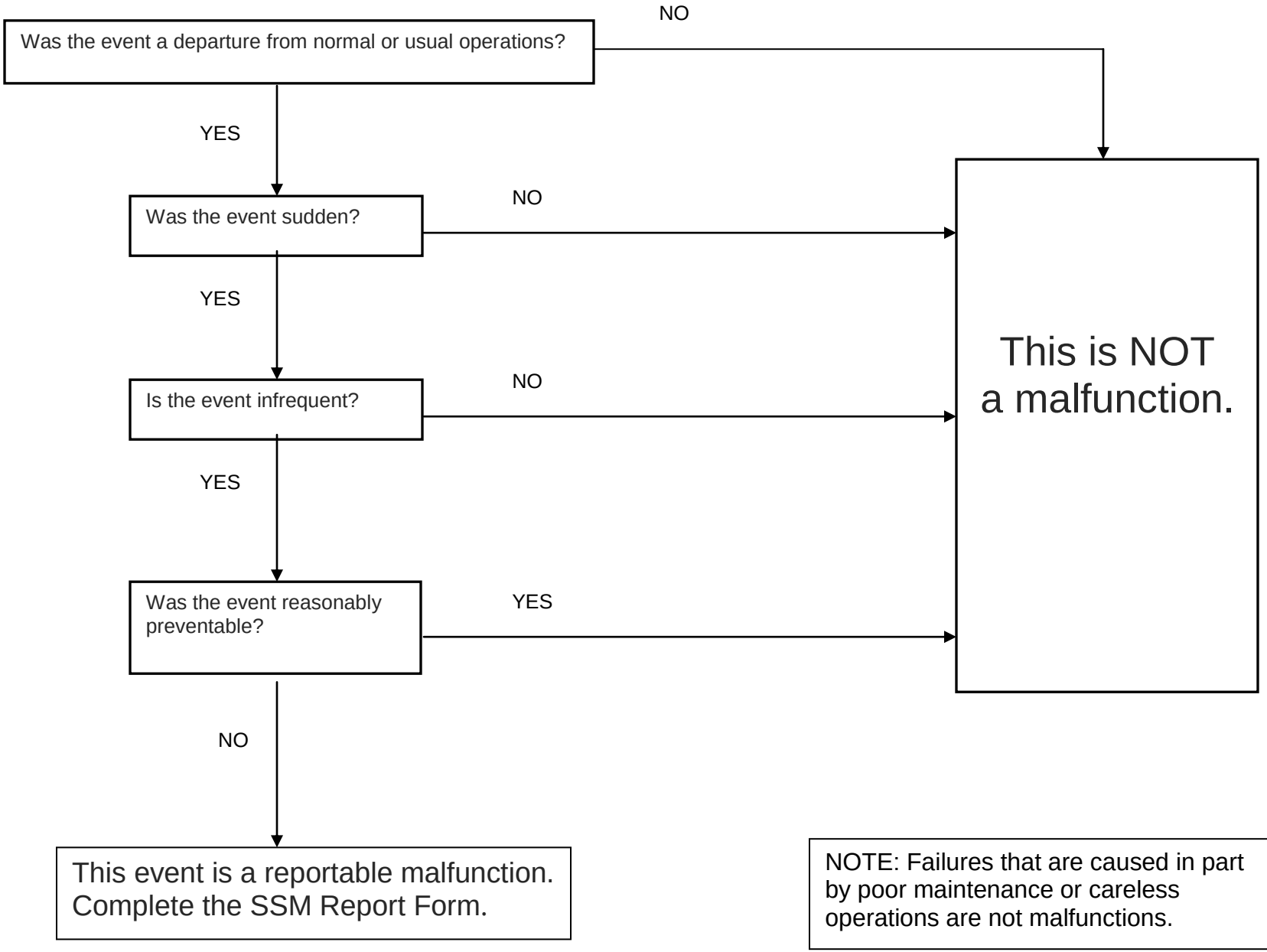
A **Malfunction** means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or unusual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. (§63.2, revised 5/30/03)

Standard Operating Procedure: Malfunction

1. Minimize/stop emission of landfill gas (if present).
2. Determine cause of malfunction.
3. Fix the malfunction.
4. Complete Section 1 and Section 2 of SMM Form. Duration is the time it takes from discovery of malfunction to Step 3 above (unless continuous monitoring records indicate malfunction starter earlier).
5. Refer to the Operations and Maintenance Manuals if necessary.

The following flow chart is useful in identifying which events are considered reportable malfunctions. If an event is not considered a reportable malfunction, it may still be considered a reportable deviation per the facility's Renewable Operating Permit.

Is this event a malfunction?



NOTE: Failures that are caused in part by poor maintenance or careless operations are not malfunctions.

4.4 SSM Form

All reportable start-up, shutdown, and malfunction events must be documented. The following SSM Report Form is recommended. Section 1 must be completed for all events. Section 2 must also be completed for malfunction events. The back of the form contains event codes. If the proper event code is not available, use event code 99 and describe the event. When completed, the form must be signed and dated. A copy of this form must be kept on file for all events for at least five years. The SSM Report Forms will be used to assist in the preparation of the semi annual SSM Plan reports.

REPUBLIC SERVICES, INC.SM

Startup/Shutdown/Malfunction Report Form

Section 1 - All Events

Type of Event	Military Time Date/Time Start	Date/Time End	Duration (hours)	Event Code (see back of form)	SOP* Followed? Yes	No**
☐ Startup						
☐ Shutdown						
☐ Malfunction					Complete Section 2 Below	

Date Form Filled Out: _____ Signature: _____

* Standard Operating Procedure (SOP) for Flare Startups (Manual & Automatic) and Shutdowns are provided in SSM Plan

If SOP in SSM Plan was not followed, **notify personnel on "Contact List".

Section 2 - Malfunction Events Only

Step	Corrective Action Procedures for All Malfunctions	☑ *Check one of the following for each step:* Procedure completed	Procedure Not Applicable
1.	Determine if landfill gas is being released to the air (can you smell landfill gas, or measure/detect gas flow?).	☐	
2.	If landfill gas is being released to the air, notify personnel on "Contact List".	☐	☐
3.	Determine if the malfunction is causing an unsafe operating condition (air entering landfill or piping, smoking, vibration, or other problem), which may harm people, the environment or the landfill gas control equipment.	☐	
4.	If unsafe operating condition exists, or landfill gas is being released to the air, **stop** (if possible) **landfill gas flow.**	☐	☐
5.	If Control device or other system component is shutdown, follow Shutdown SOP and Complete Section 1 - "Shutdown".	☐	☐
6.	Detemine if other personnel/resource (qualified technician, electrician, consultant or other) are needed for malfunction diagnosis.	☐	
7.	If additional personnel needed, notify qualified personnel: a. Record contact name, date and time:_____ b. Contact site representative with information recorded in #7.a.	☐	☐
8.	Start malfunction diagnosis.	☐	
9.	Determine if other resources are needed to fix the malfunction (qualified technician, electrician, contractor, on-site resources, manufacturer's representative, or other).	☐	
10.	If additional resources needed, contact qualified resource: a. Record contact name, date and time:_____ b. Contact site representative with information recorded in #10.a.	☐	☐
11.	Fix the malfunction.	☐	
12.	Once the malfunction is fixed, re-start the system per SOP if it had been shut down, and record start-up times and dates in boxes in Section 1 of this form.	☐	☐
13.	Record date that malfunction occurred, date that malfunction was repaired, and total time that system was out of service in boxes in Section 1 of this form.	☐	
14.	Sign this form and place it in the Start-up, Shutdown, Malfunction file.	☐	
15.	If the procedures listed above were not followed, **notify personnel on "Contact List".**	☐	☐

EVENT CODES

For Start-ups and Shutdowns:

***Startup**: The setting in operation of an affected source or portion of an affected source for any purpose.*

***Shutdown**: The cessation of operation of an affected source or portion of any source for any purpose.*

Code	Event
1	Maintenance
2	Suspected Collection System Malfunction
3	Suspected Control Device Malfunction
4	Suspected Continuous Monitoring System Malfunction (Temperature/Flow/Other)
5	Training
6	Gas System Construction/Expansion
7	Suspected Treatment System Malfunction
99	Other (Describe) _____

For Malfunctions:

***Malfunction**: Any sudden, infrequent and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.*

10	Automatic shutdown of control device by designed protective systems
11	Auto-dialer callout
12	Shutdown alarms that result in the device not shutting down
13	Unalarmed shutdown
14	Control device smoking
15	Inspection identified malfunction
16	Loss of power - utility down
17	Loss of power - unknown
18	Damaged Well, Header or Lateral Piping
19	Leaks at wellheads, valves, flanges, test ports, seals, couplings, etc.
20	Condensate knock-out problems
21	Collection piping blockages
22	Problems due to settlement
23	Loss of phase
24	Blower overload condition
25	Blower bearing failure
26	Broken belts (if belt-drive) or broken coupling (if direct-drive) in blower
27	Continuous Monitoring System Malfunction - Thermocouple
28	Continuous Monitoring System Malfunction - UV Scanner
29	Continuous Monitoring System Malfunction - Flow Monitor
30	Continuous Monitoring System Malfunction - Flow Recorder
31	Continuous Monitoring System Malfunction - Temperature Recorder
32	Act of God (i.e., lightening, wind, etc.)
99	Other (Describe) _____

APPENDIX A

SSM PLAN REVISION HISTORY

SSM Plan Revision History

This SSM 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
6/15/2011	Entity name changes, New ROP number, new form, updated language from new ROP
6/30/2014	Entity name changes, update contacts and phone numbers

APPENDIX B

GENERAL NESHAP RECORD KEEPING AND REPORTING REQUIREMENTS

Recordkeeping Requirements of the Landfill NESHAP

1. Keep current SSM plan on site
2. Keep previous versions of revised SSM plans for five years
3. Maintain records of the following for each SSM event:
    a. Occurrence and duration of start-up, shutdown or malfunction of operation (i.e. process equipment)
    b. Occurrence and duration of each malfunction of the required air pollution control and monitoring equipment
    c. All required maintenance performed on the air pollution control and monitoring equipment
4. Actions taken during SSM events, when such actions are different from those specified in the SSM plan
5. Demonstration of conformance of SSM events with site's SSM plan (information needed to demonstrate conformance with the SSM plan may take form of a checklist)
6. Each period during which a CMS is malfunctioning or inoperative
7. All required measurements needed to demonstrate compliance with a relevant standard (i.e. temperature and flow measurements)
8. All results of performance tests, CMS performance evaluations, and opacity and visible emissions observations
9. All CMS calibration checks
10. All adjustments and maintenance performed on CMS
11. Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements

Semiannual SSM Plan Reports

(Must be submitted by within 30 days of end of period or in accordance the facility's Title V permit.)

1. Letter report containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy.

2. If actions taken during an SSM event are consistent with procedures specified in the SSM plan, the owner/operator shall state this in the report.

3. If actions taken during an SSM event are not consistent with procedures specified in the SSM plan, but source did not exceed any applicable emissions limitation in the relevant emissions standard, then the semiannual report must include the following:

    a. Number of malfunctions

    b. Duration of malfunctions

    c. Description of malfunctions

4. If the SSM plan was revised during the reporting period, to reflect changes in equipment or procedures at the affected source, this must be reported in the semiannual report.

Immediate Notification Reports

(Triggered if actions taken during an SSM event were not consistent with procedures specified in the SSM plan, AND the source exceeds the relevant emissions standard)

1. Record the actions taken for the event.

2. Report such actions to the Department within 2 working days after commencing actions inconsistent with the plan.

3. Follow up verbal report by a letter within 7 working days after the end of the event, in accordance with 40 CFR 63.10(d)(5).

4. Revise the SSM plan within 45 days of the non-conforming event.

APPENDIX C

SAMPLE NESHAP REPORT LETTERS AND NOTIFICATION FORMS

Startup, Shutdown, and Malfunction Plan
Deviation Report

Facility: _____ Date Form Completed: _____

Unit ID: _____

Event: ☑ *check the appropriate box.*

☐ Startup ☐ Shutdown ☐ Malfunction

Date: _____ Time: _____

Duration: _____

Provide detailed explanation of the circumstance of the startup, shutdown, malfunction:

_____

_____

Provide description of corrective action:

_____

_____

Describe the reasons the Startup, Shutdown, Malfunction Plan was not adequate:

_____

_____

Describe proposed revisions to the Startup, Shutdown, Malfunction Plan:

_____

_____

Were any excess emissions and/ or parameter monitoring exceedances believed to have occurred during the event? ☑ *check the appropriate box.*

☐ Yes ☐ No

Name: _____

Title: _____

Signature: _____

Sample Semiannual Report Letter
(All SSM Events in Compliance with the SSM Plan)

Date

Air Agency Address

RE: Semiannual Startup, Shutdown, Malfunction (SSM) Plan Report
XXXXX Landfill
Facility Title V Operating Permit No.
Reporting Period: _____ to _____

Dear _____:

The XXXXX Landfill is subject to the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (Landfill NESHAP – 40 CFR 63 Subpart AAAA). The NESHAP requires that a report be submitted on a semiannual basis, a report be submitted to the Administrator discussing the facility's compliance with the procedures in their SSM Plan, during SSM events (40 CFR 63.10(d)(5)).

The actions taken at the facility during all SSM events, for the reporting period listed above, were consistent with the procedures listed in the SSM Plan at the facility.

During the reporting period listed above, there (were/were not any) revisions made to the SSM Plan at the facility. (If changes were made, state why – revised to reflect new equipment, new contact numbers, etc.).

If you have any questions regarding this Semiannual SSM Plan Report, please contact me at (List Phone Number).

Sincerely,

XXXXXXXXXXXXXX
(NAME OF COMPANY/TITLE HERE)

Attachment: MDEQ C-001 Form

(ATTACH A COMPLETED MDEQ C-001 FORM TO THIS REPORT)

Sample Semiannual Report Letter
(One or more SSM Events NOT in Compliance with the SSM Plan)

Date

Air Agency Address

RE: Semiannual Startup, Shutdown, Malfunction (SSM) Plan Report
XXXXXXXXX Landfill
Facility Title V Operating Permit No.
Reporting Period: _____ to _____

Dear _____:

The Facility Name Landfill is subject to the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (Landfill NESHAP – 40 CFR 63 Subpart AAAA). The NESHAP requires that a report be submitted on a semiannual basis, a report be submitted to the Administrator discussing the facility's compliance with the procedures in their SSM Plan, during SSM events (40 CFR 63.10(d)(5)).

The actions taken at the facility during one or more SSM events, for the reporting period listed above, were not consistent with the procedures listed in the SSM Plan at the facility. However, the source did not exceed any of the emissions limitations in the Landfill NESHAP during these events. The attached table lists the information that must be submitted in the Semiannual SSM Plan Report in this instance.

During the reporting period listed above, there were ____ revisions made to the SSM Plan at the facility. (If changes were made, state why – revised to reflect new procedures to address non conforming event (mandatory), new equipment, new contact numbers, etc.).

If you have any questions regarding this Semiannual SSM Plan Report, please contact me at (List Phone Number).

Sincerely,

XXXXXXXXX
(NAME OF COMPANY/TITLE HERE)

Attachment: Description of all Malfunction Events
MDEQ C-001

(ATTACH A COMPLETED MDEQ C-001 FORM TO THIS REPORT)

Attachment 1:
Description of all Malfunction Events
For the Reporting Period _____ to _____

Total Number of Malfunctions: _____

Date of Malfunction	Total Duration (hours)	Equipment Affected*	Description of Malfunction	Were SSM Plan Procedures Followed (Y/N)	Date of SSM Plan Revision to Address Event**

* Control Device, Continuous Monitoring System, or Collection System

**Not Applicable if SSM Plan Procedures were followed during the Malfunction Event

Sample Immediate Notification Letter
(SSM Events NOT in Compliance with the SSM Plan, and Facility Experienced Excess Emissions)

Date

Air Agency Address

RE: XXXXXXXX Landfill
Facility Title V Operating Permit No.
40 CFR 63 Subpart AAAA – Landfill NESHAP
Immediate Notification Report: Non-conforming SSM Event

Dear _____:

The XXXXXX Landfill is subject to the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (Landfill NESHAP – 40 CFR 63 Subpart AAAA). 40 CFR 63.10(d)(5) of the NESHAP requires that if actions taken at the facility during a startup, shutdown or malfunction (SSM) event are not consistent with the facility's SSM Plan, and the event results in excess emissions, the Agency must be notified verbally within 2 working days after the actions are taken. A letter must be written within 7 days of the event.

Please consider this letter as the required written report for the SSM event that occurred at the facility on (list date). As required by the NESHAP, a verbal notification was made to (give name of agency, person talked to) on (list date).

In accordance with the NESHAP, the following information is required in the letter report for this event:

Record the actions taken for the event: Describe what occurred, what was done, and how it differed from the SSM plan actions.

Describe excess emissions: Discuss the type of emission, and where it came from

Revise the SSM plan within 45 days of the non-conforming event:

Give a date by which the SSM plan will be revised.

If you have any questions regarding this Immediate Notification Report, please contact me at (List Phone Number).

Sincerely,

XXXXXXXX
(NAME OF COMPANY HERE)

Attachment: MDEQ C-001

(ATTACH A COMPLETED MDEQ C-001 TO THIS REPORT)

APPENDIX D

LANDFILL NESHAP REGULATIONS

APPENDIX E

STATE SPECIFIC SSM REQUIREMENTS

THERE WERE NO STATE SPECIFIC REQUIREMENTS AT THE TIME THIS SSM PLAN WAS DEVELOPED.

Arbor Hills Energy LLC
One North Lexington Avenue
White Plains, New York 10601
Tel. (914) 705-4000 Fax. (914) 705-4019

February 22, 2023

Ms. Diane Kavanaugh Vetort
Air Quality Division
Michigan Department of Environment, Great Lakes, and Energy
301 East Lewis B. Glick Highway
Jackson, MI 49201

Subject: Additional Information Request Response
Arbor Hills Energy LLC ("AHE")
ROP No.: N2688-2011a

Dear Ms. Kavanaugh Vetort,

AHE is in receipt of your letter dated February 8, 2023 that requested additional information related to the renewal application submitted by AHE on May 6, 2015, for Renewable Operating Permit No. MI-ROP-N2688-2011a.

The following requested information is attached along with a C001 form:

- Installation and modification dates of process equipment: FGTURBINES, FGDUCTBURNERS, EUTURBINE4 – note modification is documented on the permit application that is currently being processed. So, installation dates are included.
- Applicability demonstration of 40 CFR 63 Subparts A and YYYY
- Applicability demonstration of 40 CFR 60 Subparts A and GG
- Applicability demonstration of 40 CFR 60 Subparts A and KKKK
- Exempt Equipment listing

If you have any questions, please contact Suparna Chakladar at your convenience at (951)-833-4153.

Sincerely,

Anthony J. Falbo
Chief Operating Officer
OPAL Fuels
Arbor Hills Energy LLC

cc: Suparna Chakladar, OPAL Fuels
Scott Miller, EGLE

EGLE Michigan Department of Environment, Great Lakes, and Energy - Air Quality Division

RENEWABLE OPERATING PERMIT APPLICATION
C-001: CERTIFICATION

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 provide this information may result in civil and/or criminal penalties. Please type or print clearly.

This form is completed and included as part of Renewable Operating Permit (ROP) initial and renewal applications, notifications of change, amendments, modifications, and additional information.

Form Type **C-001**	SRN N2688

Stationary Source Name Arbor Hills Energy LLC	
City Northville	County Washtenaw

SUBMITTAL CERTIFICATION INFORMATION

1. Type of Submittal *Check only one box.*

☐ Initial Application (Rule 210) ☐ Notification / Administrative Amendment / Modification (Rules 215/216)

☒ Renewal (Rule 210) ☐ Other, describe on AI-001

2. If this ROP has more than one Section, list the Section(s) that this Certification applies to 3

3. Submittal Media ☒ E-mail ☐ FTP ☐ Disk ☐ Paper

4. Operator's Additional Information ID - Create an Additional Information (AI) ID that is used to provide supplemental information on AI-001 regarding a submittal.

AI

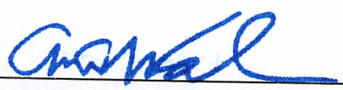
CONTACT INFORMATION

Contact Name Suparna Chakladar	Title Vice President - Fuel Supply and Environmental Services
Phone number 951-833-4153	E-mail address schakladar@opalfuels.com

This form must be signed and dated by a Responsible Official.

Responsible Official Name Anthony J. Falbo				Title Chief Operating Officer
Mailing address 5087 Junction Road				
City Lockport	State NY	ZIP Code 14094	County Niagara	Country United States

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



Signature of Responsible Official

2/22/23

Date

Turbine Installation Dates and Applicability Matrix

Emission Unit	Install Date	40 CFR 63 Subpart YYYY	40 CFR 60 Subpart GG	40 CFR 60 Subpart KKKK
Turbine 1	4/20/1998 PTI 913-90D	Existing unit that burns more than 10% biofuel	Applicable	Not Applicable
Turbine 2	4/20/1998 PTI 913-90D	Existing unit that burns more than 10% biofuel	Applicable	Not Applicable
Turbine 3	4/20/1998 PTI 913-90D	Existing unit that burns more than 10% biofuel	Applicable	Not Applicable
Turbine 4	3/4/2007 PTI 274-03B	New unit that burns more than 10% biofuel	Exempt by §60.4305(b)	Applicable

Please reference the applicable requirements for the requisite NSPS and NESHAP as follows

40 CFR 63, Subpart YYYY

§63.6090 (a)(1)(2) **Existing stationary combustion turbine.** *A stationary combustion turbine is existing if you commenced construction or reconstruction of the stationary combustion turbine on or before* ***January 14, 2003****. A change in ownership of an existing stationary combustion turbine does not make that stationary combustion turbine a new or reconstructed stationary combustion turbine.*

§63.6090(b)(2) A stationary combustion turbine which burns landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, or a stationary combustion turbine where gasified municipal solid waste (MSW) is used to generate 10 percent or more of the gross heat input on an annual basis does not have to meet the requirements of this subpart except for:

(i) The initial notification requirements of § 63.6145(d); and

(ii) Additional monitoring and reporting requirements as provided in §§ 63.6125(c) and 63.6150.

§63.6090(b)(4) ***Existing*** *stationary combustion turbines in all subcategories* ***do not have to meet the requirements of this subpart and of subpart A of this part****. No initial notification is necessary for any existing stationary combustion turbine, even if a new or reconstructed turbine in the same category would require an initial notification.*

40 CFR 60, Subpart GG

§60.330 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to the following affected facilities: All stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired.

(b) Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after October 3, 1977, is subject to the requirements of this part except as provided in paragraphs (e) and (j) of § 60.332.

§60.332 (e) states:

Stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hour) but less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired and ***that have commenced construction prior to October 3, 1982*** *are exempt from paragraph (a) of this section.*

40 CFR 60, Subpart KKKK

§60.4300 States:

This subpart establishes emission standards and compliance schedules for the control of emissions from stationary combustion turbines that commenced construction, modification or reconstruction ***after February 18, 2005****.*

§60.4305 (b) states:

Stationary combustion turbines regulated under this subpart are exempt from the requirements of subpart GG of this part.

SRN: N2688	Section Number (if applicable): 3

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)]
	Water heater	R336.1212(4)(c)	R336.1282(2)(b)(i)
	HVAC front office	R336.1212(4)(a)	R336.1282(2)(b)(i)
	HVAC shop	R336.1212(4)(a)	R336.1282(2)(b)(i)
	HVAC control room - north	R336.1212(4)(a)	R336.1282(2)(b)(i)
	HVAC control room - south	R336.1212(4)(a)	R336.1282(2)(b)(i)
	EGT turbine bay heater - northwest	R336.1212(4)(c)	R336.1282(2)(b)(i)
	EGT turbine bay heater - southwest	R336.1212(4)(c)	R336.1282(2)(b)(i)
	EGT turbine bay heater - northeast	R336.1212(4)(c)	R336.1282(2)(b)(i)
	EGT turbine bay heater - southeast	R336.1212(4)(c)	R336.1282(2)(b)(i)
	EGT turbine bay heater roof - east	R336.1212(4)(c)	R336.1282(2)(b)(i)
	EGT turbine bay heater roof - west	R336.1212(4)(c)	R336.1282(2)(b)(i)
	Solar turbine bay heater - south	R336.1212(4)(c)	R336.1282(2)(b)(i)
	Solar turbine bay heater - north	R336.1212(4)(c)	R336.1282(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-**

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
JACKSON DISTRICT OFFICE

GRETCHEN WHITMER
GOVERNOR

DANIEL EICHINGER
ACTING DIRECTOR

February 8, 2023

VIA EMAIL ONLY

Anthony Falbo
Arbor Hills Energy LLC.
10599 West Five Mile Road
Northville, Michigan 48168

SRN: N2688, Washtenaw County

Dear Anthony Falbo:

On October 20, 2022, the Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), sent Arbor Hills Landfill and Arbor Hills Energy a request for additional information pertaining to the renewal application for Renewable Operating Permit No. MI-ROP-N2688-2011a, for Arbor Hills Landfill and Arbor Hills Energy located at 10690 Six Mile Road and 10611 West Five Mile Road in Northville, Michigan. In the request for additional information, a submittal deadline was established.

On November 17, 2022, the AQD received a partial response from the Arbor Hills Energy (AHE) Section of the Stationary source within the initial 30 day submittal deadline. AQD sent an email to AHE on December 9, 2022, identifying the missing information and requesting its submittal by December 16, 2022. On December 15, AHE submitted one of the missing requested items, the ROP Certification for the partial submittal. AHE also responded by email stating, …"M-001 is not applicable to this ROP Renewal application at this time. We request that you await the AHE permit that is under renewal at EGLE. We will provide a completed M-001 at that time which will include the revised permit conditions as well as the regulatory references to OOO and AAAA."

The renewal application forms require updating. The remaining additional items are a part of the application and still need to be updated:

- Current Potential to Emit criteria pollutants and hazardous air pollutants. **NOTE:** AQD will defer on this requirement until the new permit is issued.
- Installation and modification dates of process equipment: FGTURBINES, FGDUCTBURNERS, EUTURBINE4
- Applicability demonstration of 40 CFR 63 Subparts A and YYYY
- Applicability demonstration of 40 CFR 60 Subparts A and GG
- Applicability demonstration of 40 CFR 60 Subparts A and KKKK
- Exempt Equipment listing

The Responsible Official C-001 form must accompany the above submittals.

The Air Quality Division understands that new process / process equipment is being installed at this facility under the proposed permit application(s) currently in-house. The addition of this information to the ROP application will need to be added upon issuance of the applicable permit(s) through submittal of the M-001 and C-001 forms.

Rule 210(3)(a) of the administrative rules promulgated under Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, allows the AQD to grant a 30-day extension to a facility if requested, in writing, during the initial 30-day time period given by the AQD. This time frame has passed. In addition, Rule 210(3)(b), allows the AQD to grant a longer period of time if the facility specifies, in writing, why 60 days was not a reasonable amount of time to obtain and submit the information to the AQD.

The AQD does not accept that the permit applications currently under review will need to be issued before the ROP renewal application additional information listed above can be provided (other than the PTE as noted). The Air Quality Division will consider AHE's November 16, and December 9, written communications as a request to extend the submittal deadline and is setting the new deadline of March 1, 2023, for submittal of the requested additional information. AHE should be able to provide the complete, update to date, ROP application and additional information by the extension deadline.

Please submit the requested information no later than March 1, 2023. Failure to submit the requested information by this deadline will result in the loss of the application shield as specified in Rule 210(3).

If you have any questions, please contact me at the number listed below.

Sincerely,

Diane Kavanaugh Vetort

Diane Kavanaugh Vetort
Senior Environmental Quality Analyst
Air Quality Division
517-416-3537

cc: David Seegert, Arbor Hills Landfill, Inc.
Suparna Chakladar, OPAL Fuels
Scott Miller, EGLE
Mark Mitchell, EGLE
Jenine Camilleri, EGLE