

**Archived:** Monday, June 12, 2023 12:11:50 PM  
**From:** [Haque, Sultana](#)  
**Sent:** Wed, 7 Jun 2023 19:44:46  
**To:** [EGLE-ROP](#)  
**Cc:** [Knowles, Franklin A.](#) [Bolden, John Bock, Eric](#)  
**Subject:** ROP Renewal Application, SRN A0023  
**Importance:** Normal  
**Sensitivity:** None  
**Attachments:**  
[ROP Renewal Application, SRN A0023.pdf](#)

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**CAUTION: This is an External email. Please send suspicious emails to [abuse@michigan.gov](mailto:abuse@michigan.gov)**

To Whom it May Concern:

Attached is an electronic copy of ROP Renewal Application for Otsego Paper, Inc., SRN A0023. A hard copy of the application with original signatures was mailed today.

Thank you,

Sultana

**Sultana Haque, P.E. (MI, MA, NH)**

Senior Project Manager



Vitap21540 Eisenhower Place, Ann Arbor, Michigan  
48108

**Vitap2T** 734.585.7782 | **F** 734.971.9022 | **C**  
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June 5, 2023

Rex Lane  
Kalamazoo District Supervisor  
Michigan Department of Environment, Great Lakes and Energy (EGLE)  
Air Quality Division  
7953 Adobe Road  
Kalamazoo, MI 49009

Subject: Renewable Operating Permit (ROP) Renewal Application  
Otsego Paper, Inc., SRN A0023  
ROP Number MI-ROP-A0023-2019b

Dear Mr. Lane:

Otsego Paper, Inc. respectfully submits this ROP renewal application for its facility in Otsego, Michigan. Otsego Paper currently operates under ROP number MI-ROP-N1315-2019b and the permit will expire on April 24, 2024. An administratively Complete ROP Renewal Application is due between October 26, 2022, and October 26, 2023. This application contains the required information for an administratively complete ROP renewal application that includes the following:

- Attachment 1: EGLE Forms.
- Attachment 2: Potential Emission Calculations
- Attachment 3: Mark-up of the existing ROP.
- Attachment 4: Plans referenced in an applicable permit requirement.

A copy of the complete application has also been submitted via email to [EGLE-ROP@michigan.gov](mailto:EGLE-ROP@michigan.gov).

Please direct any questions regarding this application to Eric Bock, Otsego Paper's Plant Manager, at (269) 384-6398 or via email at [ebock@usg.com](mailto:ebock@usg.com).

Sincerely,

Otsego Paper, Inc.

A handwritten signature in black ink, appearing to read "Eric Bock".

Eric Bock  
Plant Manager – USG Otsego

CC: Frank Knowles, USG  
John Bolden, USG  
Cody Yazzie, EGLE-AQD Kalamazoo District Office  
Sultana Haque, TRC



## 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.*

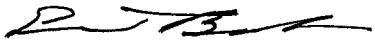
**This form is completed and included as part of Renewable Operating Permit (ROP) initial and renewal applications, notifications of change, amendments, modifications, and additional information.**

Form Type <b>C-001</b>	SRN A0023
------------------------	-----------

Stationary Source Name    Otsego Paper, Inc	
City    Otsego	County    Allegan

<b>SUBMITTAL CERTIFICATION INFORMATION</b>	
1. Type of Submittal <i>Check only one box.</i>	
<input type="checkbox"/> Initial Application (Rule 210)	<input type="checkbox"/> Notification / Administrative Amendment / Modification (Rules 215/216)
<input checked="" type="checkbox"/> Renewal (Rule 210)	<input type="checkbox"/> Other, describe on AI-001
2. If this ROP has more than one Section, list the Section(s) that this Certification applies to _____	
3. Submittal Media <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> FTP <input type="checkbox"/> Disk <input checked="" type="checkbox"/> 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	

<b>CONTACT INFORMATION</b>	
Contact Name Frank Knowles	Title Environmental Compliance Supervisor
Phone number 269-384-6351	E-mail address Fknowles@usg.com

<b>This form must be signed and dated by a Responsible Official.</b>				
Responsible Official Name    Eric A. Bock			Title Plant Manager - USG Otsego	
Mailing address    320 North Farmer Street				
City    Otsego	State MI	ZIP Code 49078	County Dickinson	Country USA
<b>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.</b>				
 _____ Signature of Responsible Official			6/15/23 _____ Date	

**Attachment 1**  
**ROP Renewal Application Form**



## RENEWABLE OPERATING PERMIT RENEWAL APPLICATION FORM

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

### GENERAL INSTRUCTIONS

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

### PART A: GENERAL INFORMATION

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

#### SOURCE INFORMATION

SRN A0023	SIC Code 2621	NAICS Code 322121	Existing ROP Number MI-ROP-A0023-2019b	Section Number (if applicable)
Source Name Otsego Paper, Inc.				
Street Address 320 North Farmer Street				
City Otsego	State MI	ZIP Code 49078	County Allegan	
Section/Town/Range (if address not available)				
Source Description Otsego Paper, Inc. is a fully owned subsidiary of United States Gypsum (USG) and is a wallboard paper manufacturing mill. The mill produces paper from recycled stock and operates two pipeline quality natural gas-fired combustion turbines with heat recovery steam generators at its combined heat and power plant.				
<input type="checkbox"/> 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 U.S. Gypsum Corporation	Section Number (if applicable)			
Mailing address ( <input type="checkbox"/> check if same as source address) 550 West Adams Street				
City Chicago	State IL	ZIP Code 60661	County Cook	Country 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.

**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 Frank Knowles		Title Environmental Compliance Supervisor		
Company Name & Mailing address ( <input checked="" type="checkbox"/> check if same as source address)				
City	State	ZIP Code	County	Country
Phone number 269-384-6351		E-mail address Fknowles@usg.com		

Contact 2 Name (optional) Eric A. Bock		Title Plant Manager - USG Otsego		
Company Name & Mailing address ( <input checked="" type="checkbox"/> check if same as source address)				
City	State	ZIP Code	County	Country
Phone number 269-384-6398		E-mail address ebox@usg.com		

**RESPONSIBLE OFFICIAL INFORMATION**

Responsible Official 1 Name Eric A. Bock		Title Plant Manager - USG Otsego		
Company Name & Mailing address ( <input checked="" type="checkbox"/> check if same as source address)				
City	State	ZIP Code	County	Country
Phone number 269-384-6398		E-mail address ebox@usg.com		

Responsible Official 2 Name (optional)		Title		
Company Name & Mailing address ( <input type="checkbox"/> check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		


<input type="checkbox"/> Check here if an AI-001 Form is attached to provide more information for Part A. Enter AI-001 Form ID:
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**PART B: APPLICATION SUBMITTAL and CERTIFICATION by Responsible Official**

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

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

Compliance Statement	
This source is in compliance with <b>all</b> 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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
This source will meet in a timely manner applicable requirements that become effective during the permit term.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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)	
Eric A. Bock, Plant Manager - USG Otsego	
<i>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.</i>	
	<u>5/5/23</u>
Signature of Responsible Official	Date

**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 <b>all</b> 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 <b>not</b> been reported in MAERS for the most recent emissions reporting year? If <b>Yes</b> , identify the emission unit(s) that was/were not reported in MAERS on an AI-001 Form. Applicable MAERS form(s) for unreported emission units must be included with this application.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C2.	Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C3.	Is this source subject to the federal Chemical Accident Prevention Provisions? (Section 112(r) of the Clean Air Act Amendments, 40 CFR Part 68) If <b>Yes</b> , a Risk Management Plan (RMP) and periodic updates must be submitted to the USEPA. Has an updated RMP been submitted to the USEPA?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
C4.	Has this stationary source <b>added or modified</b> equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NOx, PM10, PM2.5, SO2, VOC, lead) emissions? If <b>Yes</b> , include potential emission calculations (or the PTI and/or ROP revision application numbers, or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. If <b>No</b> , criteria pollutant potential emission calculations do not need to be included.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C5.	Has this stationary source <b>added or modified</b> equipment since the last ROP renewal that changes the PTE for hazardous air pollutants (HAPs) regulated by Section 112 of the federal Clean Air Act? If <b>Yes</b> , include potential emission calculations (or the PTI and/or ROP revision application numbers or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. Fugitive emissions <b>must</b> be included in HAP emission calculations. If <b>No</b> , HAP potential emission calculations do not need to be included.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C6.	Are any emission units subject to the Cross-State Air Pollution Rule (CSAPR)? If <b>Yes</b> , identify the specific emission unit(s) subject to CSAPR on an AI-001 Form.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C7.	Are any emission units subject to the federal Acid Rain Program? If <b>Yes</b> , identify the specific emission unit(s) subject to the federal Acid Rain Program on an AI-001 Form. Is an Acid Rain Permit Renewal Application included with this application?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
C8.	Are any emission units identified in the existing ROP subject to compliance assurance monitoring (CAM)? If <b>Yes</b> , identify the specific emission unit(s) subject to CAM on an AI-001 Form. If a CAM plan has not been previously submitted to EGLE, one must be included with the ROP renewal application on an AI-001 Form. If the CAM Plan has been updated, include an updated copy. Is a CAM plan included with this application? If a CAM Plan is included, check the type of proposed monitoring included in the Plan: 1. Monitoring proposed by the source based on performance of the control device, or 2. Presumptively Acceptable Monitoring, if eligible	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> <input type="checkbox"/>
C9.	Does the source have any plans such as a malfunction abatement plan, fugitive dust plan, operation/maintenance plan, or any other monitoring plan that is referenced in an existing ROP, Permit to Install requirement, or any other applicable requirement? If <b>Yes</b> , then a copy must be submitted as part of the ROP renewal application.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C10.	Are there any specific requirements that the source proposes to be identified in the ROP as non-applicable? If <b>Yes</b> , then a description of the requirement and justification must be submitted as part of the ROP renewal application on an AI-001 Form.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input checked="" type="checkbox"/>	Check here if an AI-001 Form is attached to provide more information for Part C. Enter AI-001 Form ID: <b>AI-C001</b>	



**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)]
EUSPACEHEATERS	Space heaters and water heaters, fired with natural gas	Rule 212(4)(c)	Rule 282(2)(b)(i)

Comments:

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

**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 <u>Yes</u> , identify changes and additions on Part F, Part G and/or Part H.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
E2. For each emission unit(s) identified in the existing ROP, <u>all</u> 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 <u>not</u> reported in the most recent MAERS reporting year? If <u>Yes</u> , identify the stack(s) that was/were not reported on applicable MAERS form(s).	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
E3. Have any emission units identified in the existing ROP been modified or reconstructed that required a PTI? If <u>Yes</u> , complete Part F with the appropriate information.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
E4. Have any emission units identified in the existing ROP been dismantled? If <u>Yes</u> , identify the emission unit(s) and the dismantle date in the comment area below or on an AI-001 Form.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Comments:	
<input type="checkbox"/> Check here if an AI-001 Form is attached to provide more information for Part E. Enter AI-001 Form ID: <b>AI-</b>	

**PART F: PERMIT TO INSTALL (PTI) INFORMATION**

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

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

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

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

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

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

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

Comments:

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

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

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

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

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

Yes  No

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

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

Comments:

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

**PART H: REQUIREMENTS FOR ADDITION OR CHANGE**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



## RENEWABLE OPERATING PERMIT APPLICATION

### AI-001: ADDITIONAL INFORMATION

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

SRN: A0023	Section Number (if applicable):
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1. Additional Information ID <b>AI</b> -C001
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#### Additional Information

2. Is This Information Confidential?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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C4 - Potential emission calculations for criteria air pollutants are attached  
C5 - Potential emission calculations for HAPs are attached.





## RENEWABLE OPERATING PERMIT APPLICATION AI-001: ADDITIONAL INFORMATION

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

SRN: A0023

Section Number (if applicable):

1. Additional Information ID

AI-H001

### Additional Information

2. Is This Information Confidential?

Yes  No

H1, H8 through H16 - Otsego paper, Inc. is proposing to remove Flexible Group FGRULE290 and associated permit conditions from the current ROP. The facility determined that an emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a and Rule 290 is not operated at the facility.

Otsego Paper, Inc., SRN A0023

ROP Renewal Application, ROP No. MI-ROP-A0023-2019b

Potential Emissions of Criteria Air Pollutants and Greenhouse Gas (GHG)

Criteria Pollutants and GHG	EUPAPERMACHINE1	EUTURBINE1	EUTURBINE2	EUDUCTBURNER1	EUDUCTBURNER2	EUWAREHOUSEHTRS	EUFIREPUMPEAST	EUFIREPUMPWEST	EUBLACKSTART	Total
	tons per year									
CO	-	74.20	57.00	37.30	37.30	2.50	0.51	0.48	0.72	<b>210.02</b>
NOx	-	87.70	55.00	115.10	115.10	0.36	2.36	2.25	3.36	<b>381.23</b>
PM	-	5.02	3.70	5.41	3.74	0.59	0.17	0.16	0.24	<b>19.02</b>
PM10	-	5.02	3.70	5.41	3.74	0.59	0.17	0.16	0.24	<b>19.02</b>
PM2.5	-	5.02	3.70	5.41	3.74	0.59	0.17	0.16	0.24	<b>19.02</b>
SO2	-	0.62	0.66	0.67	0.67	0.05	0.16	0.15	0.22	<b>3.19</b>
VOC	71.50	1.30	3.40	9.60	9.60	0.43	0.19	0.18	0.27	<b>96.46</b>
Lead	-	-	-	3.27E-04	3.27E-04	3.89E-05	-	-	-	6.93E-04
CO2e	-	72,586	77,357	78,178	78,178	9,305	31.75	30.19	45.07	<b>315,711</b>

Otsego Paper, Inc., SRN A0023  
 ROP Renewal Application, ROP No. MI-ROP-A0023-2019b  
 Potential Emissions of Hazardous Air Pollutants (HAPs)

HAPs	EUPAPERMACHINE1	EUTURBINE1	EUTURBINE2	EUDUCTBURNER1	EUDUCTBURNER2	EUWAREHOUSEHTRS	EUFIREFUMPEAST	EUFIREFUMPWEST	EUBLACKSTART	Total Individual HAP
	tons per year									
1,3-Butadiene	-	2.67E-04	2.84E-04	-	-	-	7.59E-06	7.21E-06	1.08E-05	5.76E-04
2-Methylnaphthalene	-	-	-	1.57E-05	-	-	-	-	-	1.57E-05
3-Methylcholanthrene	-	-	-	1.18E-06	1.18E-06	1.40E-07	-	-	-	2.50E-06
7,12-Dimethylbenz(a)anthracene	-	-	-	1.05E-05	1.05E-05	1.25E-06	-	-	-	2.22E-05
Acenaphthene	-	-	-	1.18E-06	1.18E-06	1.40E-07	-	-	-	2.50E-06
Acenaphthylene	-	-	-	1.18E-06	1.18E-06	1.40E-07	-	-	-	2.50E-06
Acetaldehyde	-	2.48E-02	2.64E-02	-	-	-	1.49E-04	1.41E-04	2.11E-04	5.17E-02
Acrolein	-	3.97E-03	4.23E-03	-	-	-	1.79E-05	1.71E-05	2.55E-05	8.25E-03
Anthracene	-	-	-	1.57E-06	1.57E-06	1.87E-07	-	-	-	3.33E-06
Benz(a)anthracene	-	-	-	1.18E-06	1.18E-06	1.40E-07	-	-	-	2.50E-06
Benzene	-	7.44E-03	7.93E-03	1.37E-03	1.37E-03	1.64E-04	1.81E-04	1.72E-04	2.57E-04	1.89E-02
Benzo(a)pyrene	-	-	-	7.85E-07	7.85E-07	9.35E-08	-	-	-	1.66E-06
Benzo(b)fluoranthene	-	-	-	1.18E-06	1.18E-06	1.40E-07	-	-	-	2.50E-06
Benzo(g,h,i)perylene	-	-	-	7.85E-07	7.85E-07	9.35E-08	-	-	-	1.66E-06
Benzo(k)fluoranthene	-	-	-	1.18E-06	1.18E-06	1.40E-07	-	-	-	2.50E-06
Chrysene	-	-	-	1.18E-06	1.18E-06	1.40E-07	-	-	-	2.50E-06
Dibenzo(a,h)anthracene	-	-	-	7.85E-07	7.85E-07	9.35E-08	-	-	-	1.66E-06
Dichlorobenzene	-	-	-	7.85E-04	7.85E-04	9.35E-05	-	-	-	1.66E-03
Ethylbenzene	-	1.98E-02	2.11E-02	-	-	-	-	-	-	4.10E-02
Fluoranthene	-	-	-	1.96E-06	1.96E-06	2.34E-07	-	-	-	4.16E-06
Fluorene	-	-	-	1.83E-06	1.83E-06	2.18E-07	-	-	-	3.88E-06
Formaldehyde	-	4.40E-01	4.69E-01	4.91E-02	4.91E-02	5.84E-03	2.29E-04	2.18E-04	3.25E-04	1.01E+00
Hexane	-	-	-	1.18E+00	1.18E+00	1.40E-01	-	-	-	2.50E+00
Indeno(1,2,3-cd)pyrene	-	-	-	1.18E-06	1.18E-06	1.40E-07	-	-	-	2.50E-06
Naphthalene	-	8.06E-04	8.59E-04	3.99E-04	3.99E-04	4.75E-05	1.65E-05	1.56E-05	2.34E-05	2.57E-03
PAH	-	1.36E-03	1.45E-03	-	-	-	-	-	-	2.82E-03
Phenanthrene	-	-	-	1.11E-05	1.11E-05	1.32E-06	-	-	-	2.36E-05
Propylene	-	-	-	-	-	-	5.01E-04	4.76E-04	7.11E-04	1.69E-03
Propylene Oxide	-	1.80E-02	1.92E-02	-	-	-	-	-	-	3.71E-02
Pyrene	-	-	-	3.27E-06	3.27E-06	3.89E-07	-	-	-	6.93E-06
Toluene	-	8.06E-02	8.59E-02	2.23E-03	2.23E-03	2.65E-04	7.94E-05	7.54E-05	1.13E-04	1.71E-01
Arsenic	-	-	-	1.31E-04	1.31E-04	1.56E-05	-	-	-	2.77E-04
Beryllium	-	-	-	7.85E-06	7.85E-06	9.35E-07	-	-	-	1.66E-05
Cadmium	-	-	-	7.20E-04	7.20E-04	8.57E-05	-	-	-	1.53E-03
Chromium	-	-	-	9.16E-04	9.16E-04	1.09E-04	-	-	-	1.94E-03
Cobalt	-	-	-	5.50E-05	5.50E-05	6.54E-06	-	-	-	1.16E-04
Manganese	-	-	-	2.49E-04	2.49E-04	2.96E-05	-	-	-	5.27E-04
Mercury	-	-	-	1.70E-04	1.70E-04	2.03E-05	-	-	-	3.61E-04
Nickel	-	-	-	1.37E-03	1.37E-03	1.64E-04	-	-	-	2.91E-03
Selenium	-	-	-	1.57E-05	1.57E-05	1.87E-06	-	-	-	3.33E-05
Benzene	-	7.44E-03	7.93E-03	1.37E-03	1.37E-03	1.64E-04	1.81E-04	1.72E-04	2.57E-04	1.89E-02
Toluene	-	8.06E-02	8.59E-02	2.23E-03	2.23E-03	2.65E-04	7.94E-05	7.54E-05	1.13E-04	1.71E-01
Xylene	-	3.97E-02	4.23E-02	-	-	-	5.53E-05	5.26E-05	7.85E-05	8.21E-02

Total Potential HAP Emissions 4.13  
 Maximum Single HAP 2.50 Hexane

**Otsego Paper, Inc., SRN A0023**  
**ROP Renewal Application, ROP No. MI-ROP-A0023-2019b**  
**Potential Emissions for EUPAPERMACHINE1**

Emission Factors <sup>(1)</sup> : VOC	606.00 lb/day
Potential Emissions <sup>(2)</sup> : VOC	71.5 TPY

Notes

- (1) Emission factor based on current permit limits.*
- (2) Potential emissions based on current permit limits*

Otsego Paper, Inc., SRN A0023  
 ROP Renewal Application, ROP No. MI-ROP-A0023-2019b  
 Potential Emissions for EUTURBINE1

Turbine Capacity: 141.5 MMBtu/hr  
 Natural Gas HHV: 1,020 Btu/cf  
 Maximum Operating Hour: 8,760

CAPs	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
CO	74.20	16.94			MI-ROP-N1315-2019b
NOx	87.70	20.02			MI-ROP-N1315-2019b
PM	5.02	1.15	0.0081	lb/MMBtu	Assumed equal to PM10
PM <sub>10</sub>	5.02	1.15	0.0081	lb/MMBtu	Application for PTI No. 193-19
PM <sub>2.5</sub>	5.02	1.15	0.0081	lb/MMBtu	Assumed equal to PM10
SO <sub>2</sub>	0.62	0.14	0.001	lb/MMBtu	Application for PTI No. 193-19
VOC	1.30	0.30			MI-ROP-N1315-2019b
Lead	-	-	-		
GHG	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
CO <sub>2</sub>	72,511	16,555	53.06	kg/MMBtu	40 CFR 98, Subpart C, Table C-1
CH <sub>4</sub>	1.37	0.31	1.00E-03	kg/MMBtu	40 CFR 98, Subpart C, Table C-2
N <sub>2</sub> O	0.14	0.03	1.00E-04	kg/MMBtu	40 CFR 98, Subpart C, Table C-2
CO <sub>2</sub> e	72,586.31	16,572.22			GWP for CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O are 1, 25 and 298 respectively
HAPs	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
1,3-Butadiene	2.67E-04	6.08E-05	4.30E-07	lb/MMBtu	AP-42, Table 3.1-3
Acetaldehyde	2.48E-02	5.66E-03	4.00E-05	lb/MMBtu	AP-42, Table 3.1-3
Acrolein	3.97E-03	9.06E-04	6.40E-06	lb/MMBtu	AP-42, Table 3.1-3
Benzene	7.44E-03	1.70E-03	1.20E-05	lb/MMBtu	AP-42, Table 3.1-3
Ethylbenzene	1.98E-02	4.53E-03	3.20E-05	lb/MMBtu	AP-42, Table 3.1-3
Formaldehyde	4.40E-01	1.00E-01	7.10E-04	lb/MMBtu	AP-42, Table 3.1-3
Naphthalene	8.06E-04	1.84E-04	1.30E-06	lb/MMBtu	AP-42, Table 3.1-3
PAH	1.36E-03	3.11E-04	2.20E-06	lb/MMBtu	AP-42, Table 3.1-3
Propylene Oxide	1.80E-02	4.10E-03	2.90E-05	lb/MMBtu	AP-42, Table 3.1-3
Toluene	8.06E-02	1.84E-02	1.30E-04	lb/MMBtu	AP-42, Table 3.1-3
Xylene	3.97E-02	9.06E-03	6.40E-05	lb/MMBtu	AP-42, Table 3.1-3
Total HAP	6.37E-01	1.45E-01			

Otsego Paper, Inc., SRN A0023  
 ROP Renewal Application, ROP No. MI-ROP-A0023-2019b  
 Potential Emissions for EUTURBINE2

Turbine Capacity: 150.8 MMBtu/hr  
 Natural Gas HHV: 1,020 Btu/cf  
 Maximum Operating Hour: 8,760

CAPs	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
CO	57.00	9.20			MI-ROP-N1315-2019b
NOx	55.00	9.05			MI-ROP-N1315-2019b
PM	3.70	0.84	0.0056	lb/MMBtu	Application for PTI No. 193-19A
PM <sub>10</sub>	3.70	0.84	0.0056	lb/MMBtu	Application for PTI No. 193-19A
PM <sub>2.5</sub>	3.70	0.84	0.0056	lb/MMBtu	Application for PTI No. 193-19A
SO <sub>2</sub>	0.66	0.15	0.001	lb/MMBtu	Application for PTI No. 193-19A
VOC	3.40	0.78			MI-ROP-N1315-2019b
Lead	-	-	-		
GHG	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
CO <sub>2</sub>	77,277	17,643	53.06	kg/MMBtu	40 CFR 98, Subpart C, Table C-1
CH <sub>4</sub>	1.46	0.33	1.00E-03	kg/MMBtu	40 CFR 98, Subpart C, Table C-2
N <sub>2</sub> O	0.15	0.03	1.00E-04	kg/MMBtu	40 CFR 98, Subpart C, Table C-2
CO <sub>2</sub> e	77,357.00	17,661.41			GWP for CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O are 1, 25 and 298 respectively
HAPs	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
1,3-Butadiene	2.84E-04	6.48E-05	4.30E-07	lb/MMBtu	AP-42, Table 3.1-3
Acetaldehyde	2.64E-02	6.03E-03	4.00E-05	lb/MMBtu	AP-42, Table 3.1-3
Acrolein	4.23E-03	9.65E-04	6.40E-06	lb/MMBtu	AP-42, Table 3.1-3
Benzene	7.93E-03	1.81E-03	1.20E-05	lb/MMBtu	AP-42, Table 3.1-3
Ethylbenzene	2.11E-02	4.83E-03	3.20E-05	lb/MMBtu	AP-42, Table 3.1-3
Formaldehyde	4.69E-01	1.07E-01	7.10E-04	lb/MMBtu	AP-42, Table 3.1-3
Naphthalene	8.59E-04	1.96E-04	1.30E-06	lb/MMBtu	AP-42, Table 3.1-3
PAH	1.45E-03	3.32E-04	2.20E-06	lb/MMBtu	AP-42, Table 3.1-3
Propylene Oxide	1.92E-02	4.37E-03	2.90E-05	lb/MMBtu	AP-42, Table 3.1-3
Toluene	8.59E-02	1.96E-02	1.30E-04	lb/MMBtu	AP-42, Table 3.1-3
Xylene	4.23E-02	9.65E-03	6.40E-05	lb/MMBtu	AP-42, Table 3.1-3
Total HAP	6.79E-01	1.55E-01			

Otsego Paper, Inc., SRN A0023  
 ROP Renewal Application, ROP No. MI-ROP-A0023-2019b  
 Potential Emissions for EUDEDUCTURNER1

Duct Burner Capacity: 152.4 MMBtu/hr  
 Natural Gas HHV: 1,020 Btu/cf  
 Maximum Operating Hour: 8,760

CAP	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
CO	37.30	8.52			MI-ROP-N1315-2019b
NOx	115.10	26.28	0.200	lb/MMBtu	MI-ROP-N1315-2019b
PM	5.41	1.23	0.0081	lb/MMBtu	Application for PTI No. 193-19A
PM <sub>10</sub>	5.41	1.23	0.0081	lb/MMBtu	Application for PTI No. 193-19A
PM <sub>2.5</sub>	5.41	1.23	0.0081	lb/MMBtu	Application for PTI No. 193-19A
SO <sub>2</sub>	0.67	0.15	0.001	lb/MMBtu	Application for PTI No. 193-19A
VOC	9.60	2.19			MI-ROP-N1315-2019b
Lead	3.27E-04	7.47E-05	0.0005	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-2
GHG	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
CO <sub>2</sub>	78,097	17,830	53.06	kg/MMBtu	40 CFR 98, Subpart C, Table C-1
CH <sub>4</sub>	1.47	0.34	1.00E-03	kg/MMBtu	40 CFR 98, Subpart C, Table C-2
N <sub>2</sub> O	0.15	0.03	1.00E-04	kg/MMBtu	40 CFR 98, Subpart C, Table C-2
CO <sub>2</sub> e	78,177.76	17,848.80			GWP for CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O are 1, 25 and 298 respectively
HAP	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
2-Methylnaphthalene	1.57E-05	3.59E-06	2.40E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
3-Methylcholanthrene	1.18E-06	2.69E-07	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
7,12-Dimethylbenz(a)anthracene	1.05E-05	2.39E-06	1.60E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Acenaphthene	1.18E-06	2.69E-07	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Acenaphthylene	1.18E-06	2.69E-07	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Anthracene	1.57E-06	3.59E-07	2.40E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benz(a)anthracene	1.18E-06	2.69E-07	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benzene	1.37E-03	3.14E-04	2.10E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benzo(a)pyrene	7.85E-07	1.79E-07	1.20E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benzo(b)fluoranthene	1.18E-06	2.69E-07	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benzo(g,h,i)perylene	7.85E-07	1.79E-07	1.20E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benzo(k)fluoranthene	1.18E-06	2.69E-07	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Chrysene	1.18E-06	2.69E-07	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Dibenzo(a,h)anthracene	7.85E-07	1.79E-07	1.20E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Dichlorobenzene	7.85E-04	1.79E-04	1.20E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Fluoranthene	1.96E-06	4.48E-07	3.00E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Fluorene	1.83E-06	4.18E-07	2.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Formaldehyde	4.91E-02	1.12E-02	7.50E-02	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Hexane	1.18E+00	2.69E-01	1.80E+00	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Indeno(1,2,3-cd)pyrene	1.18E-06	2.69E-07	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Naphthalene	3.99E-04	9.11E-05	6.10E-04	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Phenanathrene	1.11E-05	2.54E-06	1.70E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Pyrene	3.27E-06	7.47E-07	5.00E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Toluene	2.23E-03	5.08E-04	3.40E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Arsenic	1.31E-04	2.99E-05	2.00E-04	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Beryllium	7.85E-06	1.79E-06	1.20E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Cadmium	7.20E-04	1.64E-04	1.10E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Chromium	9.16E-04	2.09E-04	1.40E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Cobalt	5.50E-05	1.26E-05	8.40E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Manganese	2.49E-04	5.68E-05	3.80E-04	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Mercury	1.70E-04	3.88E-05	2.60E-04	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Nickel	1.37E-03	3.14E-04	2.10E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Selenium	1.57E-05	3.59E-06	2.40E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Total HAP	1.24E+00	2.82E-01			

Otsego Paper, Inc., SRN A0023  
 ROP Renewal Application, ROP No. MI-ROP-A0023-2019b  
 Potential Emissions for EUDUCTBURNER2

Duct Burner Capacity: 152.4 MMBtu/hr  
 Natural Gas HHV: 1,020 Btu/cf  
 Maximum Operating Hour: 8,760

CAP	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
CO	37.30	8.52			MI-ROP-N1315-2019b
NOx	115.10	26.28	0.200	lb/MMBtu	MI-ROP-N1315-2019b
PM	3.74	0.85	0.0056	lb/MMBtu	Application for PTI No. 193-19A
PM <sub>10</sub>	3.74	0.85	0.0056	lb/MMBtu	Application for PTI No. 193-19A
PM <sub>2.5</sub>	3.74	0.85	0.0056	lb/MMBtu	Application for PTI No. 193-19A
SO <sub>2</sub>	0.67	0.15	0.001	lb/MMBtu	Application for PTI No. 193-19A
VOC	9.60	2.19			MI-ROP-N1315-2019b
Lead	3.27E-04	7.47E-05	0.0005	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-2
GHG	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
CO <sub>2</sub>	78,097	17,830	53.06	kg/MMBtu	40 CFR 98, Subpart C, Table C-1
CH <sub>4</sub>	1.47	0.34	1.00E-03	kg/MMBtu	40 CFR 98, Subpart C, Table C-2
N <sub>2</sub> O	0.15	0.03	1.00E-04	kg/MMBtu	40 CFR 98, Subpart C, Table C-2
CO <sub>2</sub> e	78,177.76	17,848.80			GWP for CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O are 1, 25 and 298 respectively
HAP	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
2-Methylnaphthaleneb	1.57E-05	3.59E-06	2.40E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
3-Methylcholanthrene	1.18E-06	2.69E-07	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
7,12-Dimethylbenz(a)anthracene	1.05E-05	2.39E-06	1.60E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Acenaphthene	1.18E-06	2.69E-07	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Acenaphthylene	1.18E-06	2.69E-07	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Anthracene	1.57E-06	3.59E-07	2.40E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benz(a)anthracene	1.18E-06	2.69E-07	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benzene	1.37E-03	3.14E-04	2.10E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benzo(a)pyrene	7.85E-07	1.79E-07	1.20E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benzo(b)fluoranthene	1.18E-06	2.69E-07	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benzo(g,h,i)perylene	7.85E-07	1.79E-07	1.20E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benzo(k)fluoranthene	1.18E-06	2.69E-07	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Chrysene	1.18E-06	2.69E-07	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Dibenzo(a,h)anthracene	7.85E-07	1.79E-07	1.20E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Dichlorobenzene	7.85E-04	1.79E-04	1.20E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Fluoranthene	1.96E-06	4.48E-07	3.00E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Fluorene	1.83E-06	4.18E-07	2.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Formaldehyde	4.91E-02	1.12E-02	7.50E-02	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Hexane	1.18E+00	2.69E-01	1.80E+00	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Indeno(1,2,3-cd)pyrene	1.18E-06	2.69E-07	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Naphthalene	3.99E-04	9.11E-05	6.10E-04	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Phenanathrene	1.11E-05	2.54E-06	1.70E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Pyrene	3.27E-06	7.47E-07	5.00E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Toluene	2.23E-03	5.08E-04	3.40E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Arsenic	1.31E-04	2.99E-05	2.00E-04	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Beryllium	7.85E-06	1.79E-06	1.20E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Cadmium	7.20E-04	1.64E-04	1.10E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Chromium	9.16E-04	2.09E-04	1.40E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Cobalt	5.50E-05	1.26E-05	8.40E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Manganese	2.49E-04	5.68E-05	3.80E-04	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Mercury	1.70E-04	3.88E-05	2.60E-04	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Nickel	1.37E-03	3.14E-04	2.10E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Selenium	1.57E-05	3.59E-06	2.40E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Total HAP	1.24E+00	2.82E-01			



Otsego Paper, Inc., SRN A0023  
 ROP Renewal Application, ROP No. MI-ROP-A0023-2019b  
 Potential Emissions for EUWAREHOUSEHEATERS

Heaters' Capacity: 18.14 MMBtu/hr  
 Natural Gas HHV: 1,020 Btu/cf  
 Maximum Operating Hour: 8,760

CAP	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
CO	2.50	0.57			Application for PTI No. 193-19
NOx	0.36	0.08			Application for PTI No. 193-19
PM	0.59	0.14	7.600	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-2
PM <sub>10</sub>	0.59	0.14	7.600	lb/10 <sup>6</sup> scf	Assumed equal to PM
PM <sub>2.5</sub>	0.59	0.14	7.600	lb/10 <sup>6</sup> scf	Assumed equal to PM
SO <sub>2</sub>	0.05	0.01	0.6	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-2
VOC	0.43	0.10	5.500	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-2
Lead	3.89E-05	8.89E-06	0.0005	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-2
GHG	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
CO <sub>2</sub>	9,296	2,122	53.06	kg/MMBtu	40 CFR 98, Subpart C, Table C-1
CH <sub>4</sub>	0.18	0.04	1.00E-03	kg/MMBtu	40 CFR 98, Subpart C, Table C-2
N <sub>2</sub> O	0.02	0.00	1.00E-04	kg/MMBtu	40 CFR 98, Subpart C, Table C-2
CO <sub>2</sub> e	9,305.41	2,124.52			GWP for CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O are 1, 25 and 298 respectively
HAP	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
2-Methylnaphthaleneb	1.87E-06	4.27E-07	2.40E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
3-Methylcholanthrene	1.40E-07	3.20E-08	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
7,12-Dimethylbenz(a)anthracene	1.25E-06	2.85E-07	1.60E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Acenaphthene	1.40E-07	3.20E-08	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Acenaphthylene	1.40E-07	3.20E-08	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Anthracene	1.87E-07	4.27E-08	2.40E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benz(a)anthracene	1.40E-07	3.20E-08	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benzene	1.64E-04	3.73E-05	2.10E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benzo(a)pyrene	9.35E-08	2.13E-08	1.20E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benzo(b)fluoranthene	1.40E-07	3.20E-08	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benzo(g,h,i)perylene	9.35E-08	2.13E-08	1.20E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Benzo(k)fluoranthene	1.40E-07	3.20E-08	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Chrysene	1.40E-07	3.20E-08	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Dibenzo(a,h)anthracene	9.35E-08	2.13E-08	1.20E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Dichlorobenzene	9.35E-05	2.13E-05	1.20E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Fluoranthene	2.34E-07	5.34E-08	3.00E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Fluorene	2.18E-07	4.98E-08	2.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Formaldehyde	5.84E-03	1.33E-03	7.50E-02	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Hexane	1.40E-01	3.20E-02	1.80E+00	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Indeno(1,2,3-cd)pyrene	1.40E-07	3.20E-08	1.80E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Naphthalene	4.75E-05	1.08E-05	6.10E-04	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Phenanathrene	1.32E-06	3.02E-07	1.70E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Pyrene	3.89E-07	8.89E-08	5.00E-06	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Toluene	2.65E-04	6.05E-05	3.40E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-3
Arsenic	1.56E-05	3.56E-06	2.00E-04	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Beryllium	9.35E-07	2.13E-07	1.20E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Cadmium	8.57E-05	1.96E-05	1.10E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Chromium	1.09E-04	2.49E-05	1.40E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Cobalt	6.54E-06	1.49E-06	8.40E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Manganese	2.96E-05	6.76E-06	3.80E-04	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Mercury	2.03E-05	4.62E-06	2.60E-04	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Nickel	1.64E-04	3.73E-05	2.10E-03	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Selenium	1.87E-06	4.27E-07	2.40E-05	lb/10 <sup>6</sup> scf	AP-42, Table 1.4-4
Total HAP	1.47E-01	3.36E-02			

Otsego Paper, Inc., SRN A0023  
 ROP Renewal Application, ROP No. MI-ROP-A0023-2019b  
 Potential Emissions for EUFIREPUMPEAST

Turbine Capacity: 305 HP  
 Maximum Operating Hour: 500

CAPs	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
CO	0.51	2.04	0.007	lb/hp-hr	AP-42, Table 3.3-1
NOx	2.36	9.46	0.031	lb/hp-hr	AP-42, Table 3.3-1
PM	0.17	0.67	0.002	lb/hp-hr	Assumed equal to PM10
PM <sub>10</sub>	0.17	0.67	0.002	lb/hp-hr	AP-42, Table 3.3-1
PM <sub>2.5</sub>	0.17	0.67	0.002	lb/hp-hr	Assumed equal to PM10
SO <sub>2</sub>	0.16	0.63	0.002	lb/hp-hr	AP-42, Table 3.3-1
VOC	0.19	0.75	0.002	lb/hp-hr	AP-42, Table 3.3-1
Lead	-	-	-		
GHG	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
CO <sub>2</sub>	32	127	73.96	kg/MMBtu	40 CFR 98, Subpart C, Table C-1
CH <sub>4</sub>	0.001	0.005	3.00E-03	kg/MMBtu	40 CFR 98, Subpart C, Table C-2
N <sub>2</sub> O	0.000	0.001	6.00E-04	kg/MMBtu	40 CFR 98, Subpart C, Table C-2
CO <sub>2</sub> e	31.75	126.99			GWP for CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O are 1, 25 and 298 respectively
HAPs	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
Benzene	1.81E-04	7.24E-04	9.33E-04	lb/MMBtu	AP-42, Table 3.3-2
Toluene	7.94E-05	3.17E-04	4.09E-04	lb/MMBtu	AP-42, Table 3.3-2
Xylene	5.53E-05	2.21E-04	2.85E-04	lb/MMBtu	AP-42, Table 3.3-2
Propylene	5.01E-04	2.00E-03	2.58E-03	lb/MMBtu	AP-42, Table 3.3-2
1,3-Butadiene	7.59E-06	3.03E-05	3.91E-05	lb/MMBtu	AP-42, Table 3.3-2
Formaldehyde	2.29E-04	9.16E-04	1.18E-03	lb/MMBtu	AP-42, Table 3.3-2
Acetaldehyde	1.49E-04	5.95E-04	7.67E-04	lb/MMBtu	AP-42, Table 3.3-2
Acrolein	1.79E-05	7.18E-05	9.25E-05	lb/MMBtu	AP-42, Table 3.3-2
Naphthalene	1.65E-05	6.58E-05	8.48E-05	lb/MMBtu	AP-42, Table 3.3-2
Total HAP	1.24E-03	4.94E-03			

Otsego Paper, Inc., SRN A0023  
 ROP Renewal Application, ROP No. MI-ROP-A0023-2019b  
 Potential Emissions for EUFIREPUMPWEST

Turbine Capacity: 290 HP  
 Maximum Operating Hour: 500

CAPs	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
CO	0.48	1.94	0.007	lb/hp-hr	AP-42, Table 3.3-1
NOx	2.25	8.99	0.031	lb/hp-hr	AP-42, Table 3.3-1
PM	0.16	0.64	0.002	lb/hp-hr	Assumed equal to PM10
PM <sub>10</sub>	0.16	0.64	0.002	lb/hp-hr	AP-42, Table 3.3-1
PM <sub>2.5</sub>	0.16	0.64	0.002	lb/hp-hr	Assumed equal to PM10
SO <sub>2</sub>	0.15	0.59	0.002	lb/hp-hr	AP-42, Table 3.3-1
VOC	0.18	0.72	0.002	lb/hp-hr	AP-42, Table 3.3-1
Lead	-	-	-		
GHG	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
CO <sub>2</sub>	30	120	73.96	kg/MMBtu	40 CFR 98, Subpart C, Table C-1
CH <sub>4</sub>	0.001	0.005	3.00E-03	kg/MMBtu	40 CFR 98, Subpart C, Table C-2
N <sub>2</sub> O	0.000	0.001	6.00E-04	kg/MMBtu	40 CFR 98, Subpart C, Table C-2
CO <sub>2</sub> e	30.19	120.75			GWP for CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O are 1, 25 and 298 respectively
HAPs	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
Benzene	1.72E-04	6.88E-04	9.33E-04	lb/MMBtu	AP-42, Table 3.3-2
Toluene	7.54E-05	3.02E-04	4.09E-04	lb/MMBtu	AP-42, Table 3.3-2
Xylene	5.26E-05	2.10E-04	2.85E-04	lb/MMBtu	AP-42, Table 3.3-2
Propylene	4.76E-04	1.90E-03	2.58E-03	lb/MMBtu	AP-42, Table 3.3-2
1,3-Butadiene	7.21E-06	2.89E-05	3.91E-05	lb/MMBtu	AP-42, Table 3.3-2
Formaldehyde	2.18E-04	8.71E-04	1.18E-03	lb/MMBtu	AP-42, Table 3.3-2
Acetaldehyde	1.41E-04	5.66E-04	7.67E-04	lb/MMBtu	AP-42, Table 3.3-2
Acrolein	1.71E-05	6.83E-05	9.25E-05	lb/MMBtu	AP-42, Table 3.3-2
Naphthalene	1.56E-05	6.26E-05	8.48E-05	lb/MMBtu	AP-42, Table 3.3-2
Total HAP	1.18E-03	4.70E-03			

Otsego Paper, Inc., SRN A0023  
 ROP Renewal Application, ROP No. MI-ROP-A0023-2019b  
 Potential Emissions for EUBLACKSTART

Turbine Capacity: 433 HP  
 Maximum Operating Hour: 500

CAPs	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
CO	0.72	2.89	0.007	lb/hp-hr	AP-42, Table 3.3-1
NOx	3.36	13.42	0.031	lb/hp-hr	AP-42, Table 3.3-1
PM	0.24	0.95	0.002	lb/hp-hr	Assumed equal to PM10
PM <sub>10</sub>	0.24	0.95	0.002	lb/hp-hr	AP-42, Table 3.3-1
PM <sub>2.5</sub>	0.24	0.95	0.002	lb/hp-hr	Assumed equal to PM10
SO <sub>2</sub>	0.22	0.89	0.002	lb/hp-hr	AP-42, Table 3.3-1
VOC	0.27	1.07	0.002	lb/hp-hr	AP-42, Table 3.3-1
Lead	-	-	-		
GHG	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
CO <sub>2</sub>	45	180	73.96	kg/MMBtu	40 CFR 98, Subpart C, Table C-1
CH <sub>4</sub>	0.002	0.007	3.00E-03	kg/MMBtu	40 CFR 98, Subpart C, Table C-2
N <sub>2</sub> O	0.000	0.001	6.00E-04	kg/MMBtu	40 CFR 98, Subpart C, Table C-2
CO <sub>2</sub> e	45.07	180.29			GWP for CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O are 1, 25 and 298 respectively
HAPs	Emissions (tpy)	Emissions (lbs/hr)	Emission Factor	Units	Basis
Benzene	2.57E-04	1.03E-03	9.33E-04	lb/MMBtu	AP-42, Table 3.3-2
Toluene	1.13E-04	4.51E-04	4.09E-04	lb/MMBtu	AP-42, Table 3.3-2
Xylene	7.85E-05	3.14E-04	2.85E-04	lb/MMBtu	AP-42, Table 3.3-2
Propylene	7.11E-04	2.84E-03	2.58E-03	lb/MMBtu	AP-42, Table 3.3-2
1,3-Butadiene	1.08E-05	4.31E-05	3.91E-05	lb/MMBtu	AP-42, Table 3.3-2
Formaldehyde	3.25E-04	1.30E-03	1.18E-03	lb/MMBtu	AP-42, Table 3.3-2
Acetaldehyde	2.11E-04	8.45E-04	7.67E-04	lb/MMBtu	AP-42, Table 3.3-2
Acrolein	2.55E-05	1.02E-04	9.25E-05	lb/MMBtu	AP-42, Table 3.3-2
Naphthalene	2.34E-05	9.34E-05	8.48E-05	lb/MMBtu	AP-42, Table 3.3-2
Total HAP	1.75E-03	7.02E-03			

**Attachment 2**  
**Mark Up Copy of Existing ROP**

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

EFFECTIVE DATE: April 26, 2019  
REVISION DATEs: October 18, 2021, March 24, 2022

ISSUED TO

**Otsego Paper, Inc.**

State Registration Number (SRN): A0023

LOCATED AT

320 North Farmer Street, Otsego, Michigan 49078

**RENEWABLE OPERATING PERMIT**

Permit Number: MI-ROP-A0023-2019b

Expiration Date: April 26, 2024

Administratively Complete ROP Renewal Application  
Due Between October 26, 2022 and October 26, 2023

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

**SOURCE-WIDE PERMIT TO INSTALL**

Permit Number: MI-PTI-A0023-2019b

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

Michigan Department of Environment, Great Lakes, and Energy

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Rex Lane, Kalamazoo District Supervisor

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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 Environment, Great Lakes, and Energy (EGLE) or his or her designee.

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

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

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

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



## A. GENERAL CONDITIONS

### Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**
- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**
- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

### General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**
2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**
3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**
4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities: **(R 336.1213(1)(d))**
  - a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
  - c. Inspect, at reasonable times, any of the following:
    - i. Any stationary source.
    - ii. Any emission unit.
    - iii. Any equipment, including monitoring and air pollution control equipment.
    - iv. Any work practices or operations regulated or required under the ROP.
  - d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**
7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**
8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

### **Equipment & Design**

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2).<sup>2</sup> **(R 336.1370)**
10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

### **Emission Limits**

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

The grading of visible emissions shall be determined in accordance with Rule 303.
12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
  - a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.<sup>1</sup> **(R 336.1901(a))**
  - b. Unreasonable interference with the comfortable enjoyment of life and property.<sup>1</sup> **(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).<sup>2</sup> **(R 336.2001)**
14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**
15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

## Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate. **(R 336.1213(3)(b))**
  - a. The date, location, time, and method of sampling or measurements.
  - b. The dates the analyses of the samples were performed.
  - c. The company or entity that performed the analyses of the samples.
  - d. The analytical techniques or methods used.
  - e. The results of the analyses.
  - f. The related process operating conditions or parameters that existed at the time of sampling or measurement.
17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

## Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which 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 60604-3507. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
  - a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
  - b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
  - c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: **(R 336.1213(3)(c))**
  - a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
  - b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that; “based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete.” The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.
  
23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**
  
24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**
  
25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.<sup>2</sup> **(R 336.1912)**

## Permit Shield

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

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

- d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**
28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
- a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
  - b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
  - c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
  - d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
  - e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**
29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

## Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**
31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**
32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(10))**
33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

## Reopenings

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

## Renewals

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

## Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.
37. If the permittee is subject to 40 CFR Part 82 and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

## Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).
39. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates as provided in 40 CFR 68.10(a):
- June 21, 1999,
  - Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
  - The date on which a regulated substance is first present above a threshold quantity in a process.
40. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.
41. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR Part 68)**

## Emission Trading

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

### **Permit to Install (PTI)**

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.<sup>2</sup> **(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.<sup>2</sup> **(R 336.1201(8), Section 5510 of Act 451)**
45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.<sup>2</sup> **(R 336.1219)**
46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P.O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.<sup>2</sup> **(R 336.1201(4))**

#### **Footnotes:**

<sup>1</sup>This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## **B. SOURCE-WIDE CONDITIONS**

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

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



## SOURCE-WIDE CONDITIONS

### DESCRIPTION

All process equipment at the stationary source including equipment covered by other permits, grandfathered equipment, and exempt equipment.

### POLLUTION CONTROL EQUIPMENT

NA

#### I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. HAPs (Individual)	9.0 tpy	Based on a 12-month rolling period determined at the end of each month	Source-Wide	SC VI.1	R 336.1213(2)
2. HAPs (Combined)	22.5 tpy	Based on a 12-month rolling period determined at the end of each month	Source-Wide	SC VI.2	R 336.1213(2)
3. NOx	224.9 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month	Source-Wide	SC VI.7.	R 336.1205, 40 CFR 52.21 (c)&(d)

#### II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Natural Gas	5,189.8 MMSCF/yr <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month	Source-Wide	SC VI.5	R 336.1205, 40 CFR 52.21 (c)&(d)

#### III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate each emergency engine or emergency fire pump for more than 500 hours per 12-month rolling time period as determined at the end of each calendar month.<sup>2</sup> (R 336.1205, 40 CFR 52.21(c)&(d))

#### IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

#### V. TESTING/SAMPLING

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

NA

## **VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall maintain monthly records of the calculation of the emission rates for each individual HAP for the stationary source in tons per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1213(3))**
2. The permittee shall maintain monthly records of the calculation of the emission rates for total combined HAPs for the stationary source in tons per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1213(3))**
3. The permittee shall maintain records of the amount of each HAP contained in each fuel, coating, additive and solvent used at the facility. **(R 336.1213(3))**
4. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.<sup>2</sup> **(R 336.1205, 40 CFR 52.21(c) & (d))**
5. The permittee shall keep monthly natural gas usage records, in a format acceptable to the AQD District Supervisor, indicating the amount of natural gas used, in cubic feet, a calendar month basis, and a 12-month rolling time period basis. The records must indicate the total amount of natural gas used Source-Wide. The permittee shall keep all records on file at the facility and make them available to the Department upon request.<sup>2</sup> **(R 336.1205, 40 CFR 52.21(c)&(d))**
6. The permittee shall keep, in a satisfactory manner, a written log of the monthly hours of operation for each emergency engine or emergency fire pump. The permittee shall keep all records on file and make them available to the Department upon request.<sup>2</sup> **(R 336.1205, 40 CFR 52.21(c)&(d))**
7. The permittee shall keep, in a satisfactory manner, NOx emissions on a monthly and 12-month rolling time period basis, in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request.<sup>2</sup> **(R 336.1205, 40 CFR 52.21(c)&(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. 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

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

### C. EMISSION UNIT SPECIAL CONDITIONS

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

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

#### EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUPAPERMACHINE1	No. 1 paper machine used to produce paper from 100% recycle stock.	05-15-2007 06-30-2021 02-01-2022	NA
EUTURBINE1	A natural gas fired combustion turbine with a maximum of 141.5 MMBTU/hr heat input at maximum operating condition as measured on a higher heating value (HHV) basis.	11-01-1995	FGCOGEN
EUTURBINE2	A natural gas fired combustion turbine with a maximum of 150.8 MMBTU/hr heat input at maximum operating condition as measured on a HHV basis.	11-01-1995 06-30-2021	FGCOGEN FGNSPSK KKK
EUDUCTBURNER1	A natural gas fired duct burner associated with a heat recovery steam generator (HRSG), coupled to EUTURBINE1 (North), with a maximum of 152.4 MMBTU/hr heat input at maximum operating condition as measured on an HHV basis.	11-01-1995	FGCOGEN
EUDUCTBURNER2	A natural gas fired duct burner associated with a HRSG, coupled to EUTURBINE2 (South), with a maximum of 152.4 MMBTU/hr heat input at maximum operating condition as measured on an HHV basis.	11-01-1995	FGCOGEN FGNSPSK KKK
EUWAREHOUSEHTRS	Two natural gas-fired space heaters with a combined rating of 18.14 MMBTU/hr (HHV) or less to provide building heating.	06-30-2021	NA
EUFIREPUMPEAST	Emergency fire pump with 305 hp diesel IC engine.	2007	NA
EUFIREPUMPWEST	Emergency fire pump with 290 hp diesel IC engine.	2001	FGRICEMACT
EUBLACKSTART	Emergency generator with 433 hp (400 kw) diesel IC engine.	11-01-1995	FGRICEMACT

**EUPAPERMACHINE1  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

No. 1 paper machine used to produce paper from 100% recycle stock.

Flexible Group ID: NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Volatile Organic Compounds (VOC)	606.0 pounds per day <sup>2</sup>	Based on a monthly average	EUPAPERMACHINE1	SC VI.1.f	R 336.1205(1)(a) R 336.1225 R 336.1702(a)
2. Volatile Organic Compounds (VOC)	71.5 tons per year <sup>2</sup>	Based upon a 12-month rolling time period as determined at the end of each calendar month	EUPAPERMACHINE1	SC VI.1.g	R 336.1205(1)(a)&(3)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Paper Furnish	The permittee shall use only 100% recycled content material <sup>2</sup>	Instantaneous	EUPAPERMACHINE1	SC VI.1.d	R 336.1205(1)(a) R 336.1225

**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))

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 keep the following records on a monthly basis, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request:<sup>2</sup> (R 336.1205(3), R 336.1225)
  - a. The type of each material used. This includes but is not limited to mineral spirits, flocculant/retention aid, size, continuous felt wash, frame cleaning, and dryer felt cleaning solvents.
  - b. Chemical composition of each material, including weight percent of each component.
  - c. The VOC content of each material, with and without water and exempt solvents, (in percent by weight or pounds per gallon), as received and as applied.
  - d. The usage rate (in pounds or gallons) of each material used.
  - e. The actual hours of operation.
  - f. VOC emission calculations determining an emission rate in pounds per day for each calendar day as determined by prorating the monthly emission rate.
  - g. VOC emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

See Appendices 4 and 7

**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

**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. SV105F *	12 <sup>1</sup>	52 <sup>1</sup>	R 336.1224, R 336.1225
2. SV105G *	12 <sup>1</sup>	56 <sup>1</sup>	R 336.1224, R 336.1225
3. SV105H	48 <sup>1</sup>	53 <sup>1</sup>	R 336.1224, R 336.1225
4. SV105J	40 <sup>1</sup>	50 <sup>1</sup>	R 336.1224, R 336.1225
5. SV105K	22 <sup>1</sup>	44 <sup>1</sup>	R 336.1224, R 336.1225
6. SV105M *	12 <sup>1</sup>	44 <sup>1</sup>	R 336.1224, R 336.1225
7. SV105O-Q	30 <sup>1</sup>	67 <sup>1</sup>	R 336.1224, R 336.1225
8. SV105S	34 <sup>1</sup>	49 <sup>1</sup>	R 336.1224, R 336.1225
9. SV105T	34 <sup>1</sup>	49 <sup>1</sup>	R 336.1224, R 336.1225
10. SV105U	40 <sup>1</sup>	47 <sup>1</sup>	R 336.1224, R 336.1225
11. SV105V	40 <sup>1</sup>	46 <sup>1</sup>	R 336.1224, R 336.1225
12. SV105W	38 <sup>1</sup>	46 <sup>1</sup>	R 336.1224, R 336.1225
13. SV105X	144 <sup>1</sup>	133 <sup>1</sup>	R 336.1224, R 336.1225
14. SV105Y	12 <sup>1</sup>	44 <sup>1</sup>	R 336.1224, R 336.1225

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
15. SV105AA	24 <sup>1</sup>	49 <sup>1</sup>	<b>R 336.1224, R 336.1225</b>

\* Note - SV105F, SV105G, and SV105M are discharged at a 45-degree angle.

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## EUTURBINE1 EMISSION UNIT CONDITIONS

### DESCRIPTION

A natural gas fired combustion turbine with a maximum of 141.5 MMBTU/hr heat input at maximum operating condition as measured on a higher heating value (HHV) basis.

Flexible Group ID: FGCOGEN

### POLLUTION CONTROL EQUIPMENT

Low NOx Burners

### I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Oxides of Nitrogen (NOx)	87.7 tons per year <sup>2</sup>	Based upon a 12-month rolling time period as determined at the end of each calendar month	EUTURBINE1	SC VI.1	R 336.1205(1)(a)&(b)
2. Carbon Monoxide (CO)	74.2 tons per year <sup>2</sup>	Based upon a 12-month rolling time period as determined at the end of each calendar month	EUTURBINE1	SC VI.1	R 336.1205(1)(a)&(b)
3. Volatile Organic Compounds (VOC)	1.3 tons per year <sup>2</sup>	Based upon a 12-month rolling time period as determined at the end of each calendar month	EUTURBINE1	SC VI.1	R 336.1205(1)(a)&(b), R 336.1702

### II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural Gas	The sulfur content shall not exceed 0.8% by weight <sup>2</sup>	Instantaneous	EUTURBINE1	SC VI.3	40 CFR 60.333(b)

### III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall burn only pipeline quality natural gas in the turbines.<sup>2</sup> (40 CFR 60.333(b))

### IV. DESIGN/EQUIPMENT PARAMETER(S)

NA



**V. TESTING/SAMPLING**

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

1. Upon request from the AQD District Supervisor, the permittee shall verify the CO and VOC emission rates from EUTURBINE1 by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
CO	40 CFR Part 60, Appendix A
VOC	40 CFR Part 60, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.<sup>2</sup> (R 336.1205(1)(a)&(b), R 336.2001, R 336.2003, R 336.2004)

2. The permittee shall verify the CO and VOC emission rates from EUTURBINE1, at a minimum, every five years from the date of the last test. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. (R 336.1213(3))

**VI. MONITORING/RECORDKEEPING**

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

1. The NOx emissions shall be continuously monitored and recorded in a manner and with instrumentation in compliance with Performance Specification 2, of Appendix B, 40 CFR Part 60. The data collected from the continuous emission monitor shall be stored electronically in such a manner that the reports required per section VII of this table and per Appendix 8 can be generated. The permittee may discontinue the use of the NOx monitor during the period between October 1 and April 30.<sup>2</sup> (Section 126, CAAA 1990)
2. The flue gas oxygen concentration shall be continuously monitored and recorded in a manner and with instrumentation in compliance with Performance Specification 3, of Appendix B, 40 CFR Part 60. The data collected from the continuous emission monitor shall be stored electronically in such a manner that the reports required per section VII of this table and per Appendix 8 can be generated. The permittee may discontinue the use of the NOx monitor during the period between October 1 and April 30.<sup>2</sup> (Section 126, CAAA 1990)
3. The natural gas consumption shall be monitored and recorded on an hourly basis, in a manner and with instrumentation acceptable to the Air Quality Division.<sup>2</sup> (R 336.1205(1)(a)&(b), R 336.2818(3)(f))
4. The permittee shall monitor the nitrogen and sulfur content in the fuel in accordance with 40 CFR 60.335(d) and (e) or as described in the "Custom Fuel Monitoring Plan" in Appendix 3-A.<sup>2</sup> (R 336.1205(1)(a)&(b), 40 CFR 60.334, 40 CFR 60.335)
5. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month NOx, CO, and VOC emission calculation records.<sup>2</sup> (R 336.1205(1)(a)&(b))

See Appendix 3

**VII. REPORTING**

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

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Quarterly reporting of an excess emission report, monitoring systems performance report, and/or summary report as described in 40 CFR 60.7. Due February 1 for reporting period October 1 to December 31, May 1 for reporting period January 1 to March 31, August 1 for reporting period April 1 to June 30, November 1 for reporting period July 1 to September 30. **(40 CFR 60.7)**
5. The permittee shall submit any performance test reports including RATA reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8

**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. SV005	69 <sup>2</sup>	175 <sup>2</sup>	R 336.1225, 40 CFR 52.21(c)&(d)

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall meet the monitoring, recordkeeping, and reporting requirements of the NOx SIP Call during the ozone season (May 1 through September 30).<sup>2</sup> **(40 CFR Part 96, Subpart H)**
2. The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subparts A and GG.<sup>2</sup> **(40 CFR Part 60, Subparts A and GG)**

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).  
<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUTURBINE2  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

A natural gas fired combustion turbine with a maximum of 150.8 MMBTU/hr heat input at maximum operating condition as measured on an HHV basis.

**Flexible Group ID:** FGCOGEN, FGNSPSKKKK

**POLLUTION CONTROL EQUIPMENT**

Low NOx Burners

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NOx	9.05 pph <sup>2</sup> , A, B, C	Hourly, except during startup and shutdown and cold weather operations	EUTURBINE2	SC V.1	R 336.1205(1)(a)&(3), 40 CFR 52.21(c)&(d)
2. NOx	55 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month	EUTURBINE2	SC VI.6	R 336.1205(1)(a)&(3), 40 CFR 52.21(c)&(d)
3. CO	9.2 pph <sup>2</sup> , A, B, C	Hourly, except during startup and shutdown and cold weather operations	EUTURBINE2	SC V.1	R 336.1205(1)(a)&(3), 40 CFR 52.21(d)
4. CO	57 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month	EUTURBINE2	SC VI.6	R 336.1205(1)(a)&(3), 40 CFR 52.21(d)
5. VOC	3.4 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month	EUTURBINE2	SC VI.6	R 336.1205(1)(a)&(3), R 336.1702(a)

ppmvd = parts per million by volume at 15 percent O<sub>2</sub> and on a dry gas basis  
 lb/MWh = pound per megawatt hour  
 A Does not include startup and shutdown.  
 B Startup is defined as the period of time from initiation of the combustion process (flame-on) from shutdown status and continues until steady state operation (loads greater than a demonstrated percent of design capacity) is achieved. Shutdown is defined as that period of time from the lowering of the turbine output below the demonstrated steady state level, with the intent to shut down, until the combustion process ends at flame-off. The demonstrated percent of design capacity, or demonstrated steady state level, shall be described in the plan required in SC III.1.  
 C Cold weather operation shall be defined as anytime when the ambient outdoor temperature is less than 0°F

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural Gas	The sulfur content shall not exceed 0.8% by weight <sup>2</sup>	Instantaneous	EUTURBINE2	SC V.3	40 CFR 60.4365(a)

2. The permittee shall burn only pipeline quality natural gas in the turbine.<sup>2</sup> (R 336.1205(1)(a), R 336.1225, R 336.1702(a), 40 CFR 60.4330)

### III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Within 180 days of initial startup, the permittee shall submit, implement, and maintain a malfunction abatement plan (MAP) as described in Rule 911(2) for EUTURBINE2. The MAP shall, at a minimum, specify the following:
  - a. A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
  - b. An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
  - c. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.
  - d. Operating variables and ranges under various load conditions shall be monitored and recorded. The normal operating range of these variables and a description of the method of monitoring shall be maintained.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.<sup>2</sup> (R 336.1205(1)(a)&(3), R 336.1224, R 336.1702(a), R 336.1910, R 336.1911)

2. The total events for startup and shutdown for EUTURBINE2 shall not exceed 50 hours per 12-month rolling time period as determined at the end of each calendar month.<sup>2</sup> (R 336.1205(1)(a)&(3), 40 CFR 52.21(c)&(d))

### IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum design heat input capacity for EUTURBINE2 shall not exceed, on a fuel heat input basis, 150.8 MMBTU per hour (HHV).<sup>2</sup> (R 336.1205(1)(a)&(3), 40 CFR 52.21(c)&(d))
2. The permittee shall not operate EUTURBINE2 unless the low-NO<sub>x</sub> burners are installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes operating and maintaining each control device in accordance with an approved MAP for EUTURBINE2 as required in SC III.1.<sup>2</sup> (R 336.1205(1)(a)&(3), R 336.1224, R 336.1225, R 336.1910)

### V. TESTING/SAMPLING

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

1. Upon request from the AQD District Supervisor, the permittee shall verify the NO<sub>x</sub>, CO, and VOC emission rates from EUTURBINE2 by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
NOx	40 CFR Part 60, Appendix A
CO	40 CFR Part 60, Appendix A
VOC	40 CFR Part 60, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.<sup>2</sup> (R 336.1205(1)(a)&(b), R 336.2001, R 336.2003, R 336.2004)

2. The permittee shall verify the CO and VOC emission rates from EUTURBINE2, at a minimum, every five years from the date of the last test. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. (R 336.1213(3))

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.<sup>2</sup> (R 336.1205(1)(a)&(3))
2. The NOx emissions shall be continuously monitored and recorded in a manner and with instrumentation in compliance with Performance Specification 2, of Appendix B, 40 CFR Part 60. The data collected from the continuous emission monitor shall be stored electronically in such a manner that the reports required per section VII of this table and per Appendix 8 can be generated. The permittee may discontinue the use of the NOx monitor during the period between October 1 and April 30.<sup>2</sup> (Section 126, CAAA 1990)
3. The flue gas oxygen concentration shall be continuously monitored and recorded in a manner and with instrumentation in compliance with Performance Specification 3, of Appendix B, 40 CFR Part 60. The data collected from the continuous emission monitor shall be stored electronically in such a manner that the reports required per section VII of this table and per Appendix 8 can be generated. The permittee may discontinue the use of the NOx monitor during the period between October 1 and April 30.<sup>2</sup> (Section 126, CAAA 1990)
4. The permittee shall monitor and record, in a satisfactory manner, the natural gas usage for EUTURBINE2 and on an hourly and monthly basis. The permittee shall keep all records on file and make them available to the Department upon request.<sup>2</sup> (R 336.1205(1)(a)&(b), R 336.2818(3)(f))
5. The permittee shall calculate and keep, in a satisfactory manner, records of monthly and 12-month rolling NOx, CO, and VOC emission calculation records. The permittee shall keep records of the basis of the calculations, including any product documentation from the turbine manufacturer used to determine emissions during startup and shutdown, and cold weather operation. The permittee shall keep all records on file and make them available to the Department upon request.<sup>2</sup> (R 336.1205(1)(a)&(b))
6. The permittee shall keep, in a satisfactory manner, a record of the monthly and 12-month rolling total hours of startup and shutdown and cold weather operation for EUTURBINE2. The permittee shall keep all records on file and make them available to the Department upon request.<sup>2</sup> (R 336.1205(1)(a)&(3), 40 CFR 52.21(c)&(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. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
- 4. Quarterly reporting of an excess emission report, monitoring systems performance report, and/or summary report as described in 40 CFR 60.7. Due February 1 for reporting period October 1 to December 31, May 1 for reporting period January 1 to March 31, August 1 for reporting period April 1 to June 30, November 1 for reporting period July 1 to September 30. **(40 CFR 60.7)**
- 5. The permittee shall submit any performance test reports including RATA reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

**See Appendix 8**

**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. SV006	69 <sup>2</sup>	175 <sup>2</sup>	<b>R 336.1225, 40 CFR 52.21(c)&amp;(d)</b>

**IX. OTHER REQUIREMENT(S)**

- 1. The permittee shall meet the monitoring, recordkeeping, and reporting requirements of the NOx SIP Call during the ozone season (May 1 through September 30). **(40 CFR Part 96, Subpart H)**
- 2. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and KKKK, as they apply to EUTURBINE2 after the modification.<sup>2</sup> **(40 CFR Part 60 Subparts A and KKKK)**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUDUCTBURNER1  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

A natural gas fired duct burner associated with a heat recovery steam generator (HRSG), coupled to EUTURBINE1 (North), with a maximum of 152.4 MMBTU/hr heat input at maximum operating condition as measured on an HHV basis.

Flexible Group ID: FGCOGEN

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Oxides of Nitrogen (NOx)	115.1 tons per year <sup>2</sup>	Based upon a 12-month rolling time period as determined at the end of each calendar month	EUDUCTBURNER1	SC VI.1	<b>R 336.1205(1)(a)&amp;(b)</b>
2. Oxides of Nitrogen (NOx)	0.20 lb/MMBTU <sup>2</sup>	Based upon a 30-day rolling average, as determined at the end of each calendar day	EUDUCTBURNER1	SC VI.1	<b>40 CFR 60.44b(a)(4)(i)</b>
3. Carbon Monoxide (CO)	37.3 tons per year <sup>2</sup>	Based upon a 12-month rolling time period as determined at the end of each calendar month	EUDUCTBURNER1	SC V.1	<b>R 336.1205(1)(a)&amp;(b)</b>
4. Volatile Organic Compounds (VOC)	9.6 tons per year <sup>2</sup>	Based upon a 12-month rolling time period as determined at the end of each calendar month	EUDUCTBURNER1	SC V.1	<b>R 336.1205(1)(a)&amp;(b)</b>

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall burn only natural gas in the two duct burners.<sup>2</sup> **(R 336.1201(3))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

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

- 1. The permittee shall verify the CO and VOC emission rates from EUDUCTBURNER1 by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
CO	40 CFR Part 60, Appendix A
VOC	40 CFR Part 60, Appendix A

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

- 2. The permittee shall verify the CO and VOC emission rates from EUDUCTBURNER1, at a minimum, every five years from the date of the last test. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)
- 3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. (R 336.1213(3))

**VI. MONITORING/RECORDKEEPING**

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

- 1. The NOx emissions shall be continuously monitored and recorded in a manner and with instrumentation in compliance with Performance Specification 2, of Appendix B, 40 CFR Part 60. The data collected from the continuous emission monitor shall be stored electronically in such a manner that the reports required per section VII of this table and per Appendix 8 can be generated. The permittee may discontinue the use of the NOx monitor during the period between October 1 and April 30.<sup>2</sup> (R 336.1201(3))
- 2. The flue gas oxygen concentration shall be continuously monitored and recorded in a manner and with instrumentation in compliance with Performance Specification 3, of Appendix B, 40 CFR Part 60. The data collected from the continuous emission monitor shall be stored electronically in such a manner that the reports required per section VII of this table and per Appendix 8 can be generated. The permittee may discontinue the use of the oxygen monitor during the period between October 1 and April 30.<sup>2</sup> (R 336.1201(3))
- 3. The natural gas consumption shall be monitored and recorded in a manner and with instrumentation acceptable to the Air Quality Division.<sup>2</sup> (R 336.1205(1)(a)&(b), R 336.2818(3)(f))
- 4. Recording and reporting of emissions and operating information is required to comply with the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and Db, 40 CFR 60.49b.<sup>2</sup> (40 CFR 60.49b)
- 5. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month NOx, CO, and VOC emission calculation records.<sup>2</sup> (R336.1205(1)(a)&(b))
- 6. Test results for CO and VOC shall be used to develop an emission factor in terms of pounds of pollutant per million BTU heat input. The emission factor will be used for each following five years of operation. The emission factors shall be applied to the monthly average heat input to determine compliance with the 12-month rolling average emission rates. The monthly average heat input shall be calculated based on hourly fuel flow monitoring, as specified in SC VI.3 of this table, and the monthly measured heat value of the fuel.<sup>2</sup> (R 336.1201(3))



7. The emission factor for NOx shall be based on the worst-case 24-hour average emission rate as measured by the NOx CEM.<sup>2</sup> **(R 336.1201(3))**

See Appendices 4 and 7

**VII. REPORTING**

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
- 4. Quarterly reporting of an excess emission report, monitoring systems performance report, and/or summary report as described in 40 CFR 60.7. Due February 1 for reporting period October 1 to December 31, May 1 for reporting period January 1 to March 31, August 1 for reporting period April 1 to June 30, November 1 for reporting period July 1 to September 30. **(40 CFR 60.7, 40 CFR 60.49b)**
- 5. The permittee shall submit any performance test reports including RATA reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8

**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. SV005	69 <sup>2</sup>	175 <sup>2</sup>	<b>R 336.1225, 40 CFR 52.21(c)&amp;(d)</b>

**IX. OTHER REQUIREMENT(S)**

- 1. The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subparts A and Db.<sup>2</sup> **(40 CFR Part 60, Subparts A and Db)**

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUDUCTBURNER2  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

A natural gas fired duct burner associated with a HRSG, coupled to EUTURBINE2 (South), with a maximum of 152.4 MMBTU/hr heat input at maximum operating condition, as measured on an HHV basis.

**Flexible Group ID:** FGCOGEN, FGNSPSK KKK

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Oxides of Nitrogen (NOx)	115.1 tons per year <sup>2</sup>	Based upon a 12-month rolling time period as determined at the end of each calendar month	EUDUCTBURNER2	SC VI.1	<b>R 336.1205(1)(a)&amp;(b)</b>
2. Oxides of Nitrogen (NOx)	0.20 lb/MMBTU <sup>2</sup>	Based upon a 30-day rolling average, as determined at the end of each calendar day	EUDUCTBURNER2	SC VI.1	<b>40 CFR 60.44b(a)(4)(i)</b>
3. Carbon Monoxide (CO)	37.3 tons per year <sup>2</sup>	Based upon a 12-month rolling time period as determined at the end of each calendar month	EUDUCTBURNER2	SC V.1	<b>R 336.1205(1)(a)&amp;(b)</b>
4. Volatile Organic Compounds (VOC)	9.6 tons per year <sup>2</sup>	Based upon a 12-month rolling time period as determined at the end of each calendar month	EUDUCTBURNER2	SC V.1	<b>R 336.1205(1)(a)&amp;(b)</b>

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

- The permittee shall burn only natural gas in the two duct burners.<sup>2</sup> **(R 336.1201(3))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

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

- 1. Upon request from the AQD District Supervisor, the permittee shall verify the CO and VOC emission rates from EUDUCTBURNER2 by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
CO	40 CFR Part 60, Appendix A
VOC	40 CFR Part 60, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.<sup>2</sup> (R 336.1205 (1)(a)&(b), R 336.2001, R 336.2003, R 336.2004)

- 2. The permittee shall verify the CO and VOC emission rates from EUDUCTBURNER2, at a minimum, every five years from the date of the last test. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)
- 3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. (R 336.1213(3))

**VI. MONITORING/RECORDKEEPING**

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

- 1. The NOx emissions shall be continuously monitored and recorded in a manner and with instrumentation in compliance with Performance Specification 2, of Appendix B, 40 CFR Part 60. The data collected from the continuous emission monitor shall be stored electronically in such a manner that the reports required per section VII of this table and per Appendix 8 can be generated. The permittee may discontinue the use of the NOx monitor during the period between October 1 and April 30.<sup>2</sup> (R 336.1201(3))
- 2. The flue gas oxygen concentration shall be continuously monitored and recorded in a manner and with instrumentation in compliance with Performance Specification 3, of Appendix B, 40 CFR Part 60. The data collected from the continuous emission monitor shall be stored electronically in such a manner that the reports required per section VII of this table and per Appendix 8 can be generated. The permittee may discontinue the use of the oxygen monitor during the period between October 1 and April 30.<sup>2</sup> (R 336.1201(3))
- 3. The natural gas consumption shall be monitored and recorded in a manner and with instrumentation acceptable to the Air Quality Division.<sup>2</sup> (R 336.1205(1)(a)&(b), R 336.2818(3)(f))
- 4. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month NOx, CO, and VOC emission calculation records.<sup>2</sup> (R 336.1205 (1)(a)&(b))
- 5. Test results for CO and VOC shall be used to develop an emission factor in terms of pounds of pollutant per million BTU heat input. The emission factor will be used for each following five years of operation. The emission factors shall be applied to the monthly average heat input to determine compliance with the 12-month rolling average emission rates. The monthly average heat input shall be calculated based on hourly fuel flow monitoring, as specified in SC VI.3 of this table, and the monthly measured heat value of the fuel.<sup>2</sup> (R 336.1201(3))
- 6. The emission factor for NOx shall be based on the worst-case 24-hour average emission rate as measured by the NOx CEM.<sup>2</sup> (R 336.1201(3))

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit any performance test reports including RATA reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8

**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. SV006	69 <sup>2</sup>	175 <sup>2</sup>	<b>R 336.1225, 40 CFR 52.21(c)&amp;(d)</b>

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and KKKK, as they apply to EUDUCTBURNER2 after the modification. **(40 CFR Part 60, Subparts A and KKKK)**

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).  
<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

<b>EUWAREHOUSETRS EMISSION UNIT CONDITIONS</b>
--

**DESCRIPTION**

Two natural gas-fired space heaters with a combined rating of 18.14 MMBTU/hr (HHV) or less to provide building heating.

Flexible Group ID: NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

1. The permittee shall burn only pipeline quality natural gas in EUWAREHOUSETRS.<sup>2</sup> (R 336.1205(1)(a), R 336.1224, R 336.1225, R 336.1702(a))

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The maximum combined design heat input capacity for EUWAREHOUSETRS shall not exceed 18.14 MMBTU per hour on a fuel heat input basis.<sup>2</sup> (R 336.1205(1)(a), R 336.1225)

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall keep manufacturer documentation showing the maximum heat input for each space heater in EUWAREHOUSETRS.<sup>2</sup> (R 336.1205(1)(a), R 336.1225)

**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

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

NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## **EUFIREPUMPEAST EMISSION UNIT CONDITIONS**

### **DESCRIPTION**

Emergency fire pump with a 305 hp diesel IC engine.

**Flexible Group ID:** NA

### **POLLUTION CONTROL EQUIPMENT**

NA

#### **I. EMISSION LIMIT(S)**

NA

#### **II. MATERIAL LIMIT(S)**

NA

#### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. Pursuant to 40 CFR 80.510(b)(1)(i), the sulfur content for nonroad diesel fuel may not exceed 15 ppm (0.0015 percent by weight). **(40 CFR 60.4207(b), 40 CFR 80.510(b)(1)(i))**
2. The permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air-pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instruction, the emission-related settings are changed in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. **(40 CFR 60.4211(a), 40 CFR 60.4211(g)(2))**
3. The emergency stationary ICE must be operated according to the requirements below. In order for the engine to be considered an emergency station ICE, any operation other than emergency operation, maintenance and testing, emergency demand response and operation in non-emergency situation for 50 hours per year, as described below is prohibited: **(40 CFR 60.4211(f))**
  - a. There is no time limit on the use of emergency stationary ICE in emergency situations.
  - b. The emergency stationary ICE may be operated for the purposes in i. below for a maximum of 100 hours per calendar year. Any operation for non-emergency situation counts as part of the 100 hours per calendar year as allowed
    - i. The emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating the Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year.

- c. The permittee may operate the emergency stationary ICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing.

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. If the emergency stationary CI internal combustion engine does not meet the standards applicable to non-emergency engines, the permittee must install a non-resettable hour meter prior to startup of the engine.

#### **V. TESTING/SAMPLING**

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

NA

#### **VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document: **(40 CFR 60.4214(b))**
  - a. How many hours are spent for emergency operation.
  - b. How many hours are spent for maintenance checks and readiness testing.
  - c. How many hours are spent for non-emergency operation.
  - d. What classified the hours of operation as non-emergency, emergency, or readiness testing and maintenance checks.

See Appendix 4

#### **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

#### **VIII. STACK/VENT RESTRICTION(S)**

NA

#### **IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all provisions of the federal Standards of Performance for Stationary Compression Ignition Internal Combustion Engines as specified in 40 CFR Part 60, Subparts A and IIII, as they apply to the equipment in EUFIREPUMPEAST. **(40 CFR Part 60, Subparts A and IIII)**



2. **40 CFR Part 63, Subpart ZZZZ** - An affected source that is a new or reconstructed stationary RICE located at an area source must meet the requirements in 40 CFR Part 63, Subpart ZZZZ by meeting the requirements of 40 CFR Part 60, Subpart IIII for compression ignition engines. No further requirements apply for such engines under 40 CFR Part 63, Subpart ZZZZ. **(40 CFR 63.6590(c)(1))**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

### D. FLEXIBLE GROUP SPECIAL CONDITIONS

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

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

#### FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGCOGEN	Two natural gas fired turbines, both with duct burners and HRSG. The purpose of this flexible group is to place a cap on the emission limits for the entire power plant facility.	EUTURBINE1 EUTURBINE2 EUDUCTBURNER1 EUDUCTBURNER2
FGNSPSK K K K K	A natural gas-fired combustion turbine with a natural gas-fired duct burner and associated HRSG subject to 40 CFR Part 60 Subpart K K K K.	EUTURBINE2, EUDUCTBURNER2
<del>FGRULE290</del>	<del>Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a and Rule 290. Emission units installed/modified before December 20, 2016, may show compliance with Rule 290 in effect at the time of installation/modification.</del>	<del>NA</del>
FGRICEMACT	The RICE, both compression ignition, subject to the area source RICE MACT.	EUFIREPUMPWEST EUBLACKSTART

**FGCOGEN  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Two natural gas fired turbines, both with duct burners and HRSG. The purpose of this flexible group is to place a cap on the emission limits for the entire power plant facility.

**Emission Units:** EUTURBINE1, EUTURBINE2, EUDUCTBURNER1, EUDUCTBURNER2

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring / Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. NOx	All units combined - 217.80 tons per year <sup>2</sup>	Based on a 12-month rolling time period as determined at the end of each calendar month	FGCOGEN	SC VI.1	<b>R 336.1205(1)(a)&amp;(3)</b>
2. CO	All units combined - 215.20 tons per year <sup>2</sup>	Based on a 12-month rolling time period as determined at the end of each calendar month	FGCOGEN	SC VI.1	<b>R 336.1205(1)(a)&amp;(3)</b>
3. VOC	All units combined – 23.2 tons per year <sup>2</sup>	Based on a 12-month rolling time period as determined at the end of each calendar month	FGCOGEN	SC VI.1	<b>R 336.1205(1)(a)&amp;(3)</b>

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

- 1. The permittee shall not exceed a total heat input capacity of 576.2 million BTU per hour as measured on an HHV (higher heating value) basis, at any time from all FGCOGEN units combined.<sup>2</sup> **(R 336.1201(3))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

- 1. The permittee shall monitor and record the total steam production per hour from all FGCOGEN units combined.<sup>2</sup> **(R 336.1205(1)(a)&(b))**

2. For each of the FGCOGEN units, the permittee shall keep, in a satisfactory manner, monthly and previous 12-month NOx, CO, and VOC emission calculation records.<sup>2</sup> **(R336.1205 (1)(a)&(b))**
3. The permittee shall keep, in a satisfactory manner, a log of the startup and shutdown hours of EUTURBINE1 & EUTURBINE2. The permittee shall keep all records on file at the facility and make them available to the Department upon request.<sup>2</sup> **(R 336.1205, R 336.2818(3)(f), 40 CFR 52.21(c)&(d))**
4. The permittee shall keep, in a satisfactory manner, a log of the hours when the external temperature is less than 0 degrees Fahrenheit for EUTURBINE1 & EUTURBINE2. The permittee shall keep all records on file at the facility and make them available to the Department upon request.<sup>2</sup> **(R 336.1205, R 336.2818(3)(f), 40 CFR 52.21(c)&(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. 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

### **Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FGNSPSK K K K K K**  
**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

A natural gas-fired combustion turbine with a natural gas-fired duct burner and associated HRSG subject to 40 CFR Part 60, Subpart K K K K.

**Emission Units:** EUTURBINE2, EUDUCTBURNER2

**POLLUTION CONTROL EQUIPMENT**

Low NOx Burners

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NOx	42 ppmvd or 150 ng/J of useful output (2.0 lb/MWh) <sup>2,A,B,C</sup>	Hourly	FGNSPSK K K K K	SC V.1, SC IV.2	<b>40 CFR 60.4320(a), Table 1 of 40 CFR Part 60, Subpart K K K K</b>
2. SO <sub>2</sub>	0.60 lb/MMBTU <sup>2</sup>	Hourly	FGNSPSK K K K K	SC VI.4, SC VI.5	<b>40 CFR 60.4330(a)(2)</b>

ppmvd = parts per million by volume at 15 percent O<sub>2</sub> and on a dry gas basis  
<sup>A</sup> Does not include startup and shutdown.  
<sup>B</sup> Startup is defined as the period of time from initiation of the combustion process (flame-on) from shutdown status and continues until steady state operation (loads greater than a demonstrated percent of design capacity) is achieved. Shutdown is defined as that period of time from the lowering of the turbine output below the demonstrated steady state level, with the intent to shut down, until the combustion process ends at flame-off. The demonstrated percent of design capacity, or demonstrated steady state level, shall be described in the plan required in SC III.1.  
<sup>C</sup> Table 1 of 40 CFR Part 60 Subpart K K K K allows 150 ppmvd NO<sub>x</sub> at 15 percent O<sub>2</sub> when the turbines are operating at less than 75 percent of peak load, or at temperatures less than 0°F.

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Sulfur content in natural gas	20 gr/100 scf <sup>2</sup>	At all times	FGNSPSK K K K K	SC VI.5	<b>R 336.1205(1)(a)&amp;(3), 40 CFR 52.21(c)&amp;(d), 40 CFR 60.4365(a)</b>

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

- 1. Within 180 days of permit issuance, the permittee shall submit, implement, and maintain a plan that describes how emissions will be minimized during startup and shutdown. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporate standard industry practices, and shall describe the demonstrated percent of design capacity, or demonstrated steady state level. Unless notified by

the District Supervisor within 30 business days after plan submittal, the plan shall be deemed approved.<sup>2</sup> **(R 336.1911, R 336.1912, 40 CFR 60.4333(a))**

2. The permittee shall operate and maintain FGNSPSK K K K K, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including startup, shutdown, and malfunction.<sup>2</sup> **(40 CFR 60.4333(a))**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor and record the natural gas usage rate for FGNSPSK K K K K on a continuous basis. The device shall be operated in accordance with 40 CFR 60.4345(c).<sup>2</sup> **(R 336.1205(1)(a)&(3), 40 CFR 60.4345)**
2. As an alternative to subsequent stack test requirements listed in SC V.1, the permittee shall install, calibrate, maintain and operate in a satisfactory manner devices or equipment to monitor and record the NO<sub>x</sub> emissions and O<sub>2</sub> or CO<sub>2</sub> content of the exhaust gas from FGNSPSK K K K K on a continuous basis. The permittee shall install and operate a CEMS to meet the timelines, requirements and reporting detailed in Appendix 3-B.<sup>2</sup> **(R 336.1205(1)(a)&(3), 40 CFR 60.4340(b), 40 CFR 60.4345)**

See Appendix 3

#### **V. TESTING/SAMPLING**

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

1. If the permittee does not use the continuous emissions monitoring, allowance as specified in SC VI.2, then within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup, federal Standards of Performance for New Stationary Sources require verification of NO<sub>x</sub> emission rates from each turbine included in FGNSPSK K K K K, by testing at owner's expense, in accordance with 40 CFR Parts 60.8 and 60.4400.
  - a. The permittee shall conduct three separate test runs, at least 20 minutes each, at ambient temperatures greater than 0 °F, and at any load condition within ±25 percent of 100 percent peak load.
  - b. Testing must be conducted annually (at least every 14 calendar months).
  - c. If the stack test result is less than or equal to 75 percent of the NO<sub>x</sub> limits in SC I.1, the test plan can be changed to once every two years (at least every 26 calendar months). If subsequent test results yield NO<sub>x</sub> emissions greater than 75 percent of the NO<sub>x</sub> limit in SC I.1, annual testing must be resumed.
  - d. Subsequent stack testing is not required if the permittee shows continuous compliance with the NO<sub>x</sub> emission limits with a CEMS, as specified in SC VI.2.
  - e. Stack testing procedures and the location of stack testing ports shall be in accordance with the applicable Federal Reference Methods, 40 CFR Part 60, Appendix A.

No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.<sup>2</sup> **(40 CFR 60.4340(a), 40 CFR 60.4375(b), 40 CFR 60.4400(a), 40 CFR Part 60, Subpart K K K K)**

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

#### **VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.<sup>2</sup> **(R 336.1205(1)(a)&(3), 40 CFR 60.4345)**

2. As an alternative to the stack testing required in SC V.1, the permittee shall monitor and record the NOx emissions from FGNSPSK KKK on a continuous basis. The permittee shall install, calibrate, maintain, and operate a CEMS as described in 40 CFR 60.4335(b) and 60.4345.<sup>2</sup> **(40 CFR 60.4340(b))**
3. The permittee shall monitor and record, in a satisfactory manner, the natural gas usage for FGNSPSK KKK on an hourly and monthly basis. The heating value of the natural gas in BTU per cubic foot shall be determined on a monthly basis using a default heating value or one sample taken from the main gas pipeline to the facility on the permittee's property.<sup>2</sup> **(R 336.1205(1)(a)&(b), 40 CFR Part 75, Appendix D)**
4. The permittee shall monitor the sulfur content in the fuel once per turbine operating day, using the methods described in 40 CFR 60.4415, or alternate methods as described in 40 CFR 60.4360. The permittee may use a custom monitoring schedule pursuant to 40 CFR 60.4370(c) if the schedule has been approved by the EPA Administrator. Sulfur in fuel monitoring is not required if it is demonstrated that the potential sulfur emissions do not exceed 0.06 lb SO<sub>2</sub> per MMBTU heat input. The demonstration shall include one of the following:<sup>2</sup> **(40 CFR 60.4360, 40 CFR 60.4365, 40 CFR 60.4370)**
  - a. The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content is 20 grains of sulfur per 100 standard cubic feet or less; or
  - b. Representative fuel sampling data, as specified in 40 CFR Part 75, Appendix D, Section 2.3.1.4 or 2.3.2.4, shows that the sulfur content does not exceed 0.06 lb SO<sub>2</sub> per MMBTU heat input.
5. The permittee shall keep, in a satisfactory manner, records of the sulfur content of the fuel once each operating day for FGNSPSK KKK, as required by SC VI.4. This condition does not apply if it is demonstrated that the potential sulfur emissions do not exceed 0.06 lb SO<sub>2</sub> per MMBTU heat input pursuant to 40 CFR 60.4365. All records shall be kept on file for a period of at least five years and made available to the Department upon request.<sup>2</sup> **(40 CFR 60.4370)**
6. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit for FGNSPSK KKK. This information shall include, but shall not be limited to the following:
  - a. Compliance tests and any testing required under the special conditions of this permit;
  - b. Monitoring data;
  - c. Verification of heat input capacity;
  - d. Identification, type, and amount of fuel combusted on a calendar month basis;
  - e. All records required by 40 CFR 60.7, including the initial startup notification and performance tests.
  - f. Records of the duration of all dates and times of startup and shutdown events;
  - g. Records of the duration of all dates and times of cold weather operations;
  - h. All calculations necessary to show compliance with the limits contained in this permit;
  - i. All records related to, or as required by, the MAP and the startup and shutdown plan.

All of the above information shall be stored in a format acceptable to the AQD District Supervisor.<sup>2</sup> **(R 336.1205(1)(a)&(3), R 336.1224, R 336.1225, R 336.1331(1)(c), R 336.1702(a), R 336.1912, 40 CFR 60.7, 40 CFR 60.4365, 40 CFR Part 60, Subpart KKKK)**

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall submit any performance test reports RATA reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**
5. The permittee shall provide written notification of construction and operation to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**
6. The permittee shall submit excess emissions and monitor downtime in accordance with 40 CFR 60.7(c) and 40 CFR 60.4380(b). An excess emission is any unit operating period in which the 4-hour rolling average NOx emission rate exceeds the applicable emission limit in 40 CFR 60.4320. Monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NOx concentration, CO<sub>2</sub> or O<sub>2</sub> concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if you will use this information for compliance purposes. All reports must be postmarked by the 30<sup>th</sup> day following the end of each 6-month period. **(40 CFR 60.4375(a), 40 CFR 60.4380(b), 40 CFR 60.4395)**
7. If the permittee is required to monitor the sulfur content in the fuel pursuant to SC VI.5 and 40 CFR 60.4360, the permittee shall submit excess emissions and monitor downtime in accordance with 40 CFR 60.7(c) and 60.4385. An excess emission is each turbine operating hour beginning on the date and hour that any sample shows an exceedance in the applicable sulfur limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. Monitor downtime begins when a required sample is not taken by its due date or the date and hour that invalid results are obtained. Monitor downtime ends on the date and hour of the next valid sample. All reports must be postmarked by the 30<sup>th</sup> day following the end of each 6-month period.<sup>2</sup> **(40 CFR 60.4375(a), 40 CFR 60.4385, 40 CFR 60.4395)**

See Appendix 8

**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. SV006	69 <sup>2</sup>	175 <sup>2</sup>	<b>R 336.1225, 40 CFR 52.21(c)&amp;(d)</b>

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and KKKK, as they apply to FGNSPSKKKK, after EUTURBINE2 is modified.<sup>2</sup> **(40 CFR Part 60, Subparts A and KKKK)**

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).  
<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).



## **FGRULE290**

### **FLEXIBLE GROUP CONDITIONS**

#### **DESCRIPTION**

~~Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a and Rule 290. Emission units installed/modified before December 20, 2016, may show compliance with Rule 290 in effect at the time of installation/modification.~~

**Emission Unit:** NA

#### **POLLUTION CONTROL EQUIPMENT**

NA

#### **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(2)(a)(i))**~~
- ~~2. Any emission unit for which CO<sub>2</sub> equivalent emissions are not more than 6,250 tons per month and for which the total uncontrolled or controlled emissions of all other 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(2)(a)(ii))**
  - ~~a. For toxic 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 micrograms 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(2)(a)(ii)(A))**~~
  - ~~b. For toxic 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(2)(a)(ii)(B))**~~
  - ~~c. The emission unit shall not emit any toxic 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(2)(a)(ii)(C))**~~
  - ~~d. For total mercury, the uncontrolled or controlled emissions shall not exceed 0.01 pounds per month from emission units installed on or after December 20, 2016. **(R 336.1290(2)(a)(ii)(D))**~~
  - ~~e. For lead, the uncontrolled or controlled emissions shall not exceed 16.7 pounds per month from emission units installed on or after December 20, 2016. **(R 336.1290(2)(a)(ii)(E))**~~~~
- ~~3. Any emission unit that emits only particulate air contaminants without initial risk screening levels and other air contaminants that are exempted under Rule 290(2)(a)(i) or Rule 290(2)(a)(ii), if all the following provisions are met: **(R 336.1290(2)(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 exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(2)(a)(iii)(A))**~~
  - ~~b. The visible emissions from the emission unit are not more than 5% opacity in accordance with the methods contained in Rule 303. **(R 336.1290(2)(a)(iii)(B))**~~~~

- e. ~~The initial threshold screening level for each particulate toxic air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. (R 336.1290(2)(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)~~
2. ~~The following requirements apply to emission units installed on or after December 20, 2016, utilizing control equipment:~~
- a. ~~An air cleaning device for volatile organic compounds shall be installed, maintained, and operated in accordance with the manufacturer's specifications. Examples include the following (R 336.1290(2)(b)(i), R 336.1910)~~
    - i. ~~Oxidizers and condensers equipped with a continuously displayed temperature indication device.~~
    - ii. ~~Wet scrubbers equipped with a liquid flow rate monitor.~~
    - iii. ~~Dual stage carbon absorption where the first canister is monitored for breakthrough and replaced if breakthrough is detected.~~
  - b. ~~An air cleaning device for particulate matter shall be installed, maintained, and operated in accordance with the manufacturer's specifications or the permittee shall develop a plan that provides to the extent practicable for the maintenance and operation of the equipment in the manner consistent with good air pollution control practices for minimizing emissions. It shall also be equipped to monitor appropriate indicators of performance, for example, static pressure drop, water pressure, and water flow rate. (R 336.1290(2)(b)(ii), R 336.1910)~~

## 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)(iii))~~

1. ~~The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the EGLE, AQD Rule 290; Permit to Install Exemption Record form (EQP 3558) or in a format that is acceptable to 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(2)(a)(ii) and (iii). (R 336.1213(3))~~
  - e. ~~Records of 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. Volatile organic compound emissions from units installed on or after December 20, 2016, shall be calculated using mass balance, generally accepted engineering calculations, or another method acceptable to the AQD District Supervisor. (R 336.1213(3), R 336.1290(2)(d))~~
  - f. ~~Records are maintained on file for the most recent 2-year period and are made available to the department upon request. (R 336.1213(3), R 336.1290(2)(e))~~

- ~~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(2)(c), R 336.1213(3))~~
  - ~~b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(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(2)(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))~~

## ~~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~~

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

~~NA~~

## ~~IX. OTHER REQUIREMENT(S)~~

~~NA~~

## **FGRICEMACT FLEXIBLE GROUP CONDITIONS**

### **DESCRIPTION**

The RICE, both compression ignition, subject to the area source RICE MACT.

**Emission Units:** EUFIREPUMPWEST, EUBLACKSTART

### **POLLUTION CONTROL EQUIPMENT**

NA

### **I. EMISSION LIMIT(S)**

NA

### **II. MATERIAL LIMIT(S)**

NA

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. Owners and operators of existing stationary RICE located at an area source of HAP emissions must comply with the requirements in Table 2d and the operating limitations in Table 2b of 40 CFR Part 63, Subpart ZZZZ. **(40 CFR 63.6603 and Table 2d)**
  - a. Change oil and filter every 500 hours of operation or annually, whichever comes first.
  - b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
  - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
2. The permittee may utilize an oil analysis program in order to extend the specified oil change requirement in 40 CFR 63.6603. The oil analysis program must be performed at the same frequency as oil changes are required. The analysis program must analyze the parameters and keep records as required in 40 CFR 63.6625(i) for CI engines or 40 CFR 63.6625(j) for SI engines. **(40 CFR 63.6625(i))**
3. The permittee shall operate the emergency stationary CI engines according to the requirements in paragraphs (f) (1), (2), and (4) of 40 CFR 63.6640(f) (paragraphs (a) through (c), below). In order for the engines to be considered an emergency stationary RICE under 40 CFR Part 63, Subpart ZZZZ, any operation other than those activities described in paragraphs (f) (1), (2), and (4) of 40 CFR 63.6640 (paragraphs (a) through (c), below), is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs (f) (1), (2), and (4) of 40 CFR 63.6640 (paragraphs (a) through (c), below), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. **(40 CFR 63.6640)**
  - a. There is no time limit on the use of emergency stationary ICE in emergency situations.
  - b. The permittee may operate the emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2) (i) through (iii) of 40 CFR 63.6640 (paragraphs (i) through (iii), below) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(4) of 40 CFR 63.6640 (paragraph (c), below) counts as part of the 100 hours per calendar year allowed by this paragraph (paragraph (f)(2) of 40 CFR 63.6640).
    - i. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the

Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

- ii. Vacated
- iii. Vacated
- c. Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of 40 CFR 63.6640 (paragraph (b), above). Except as provided in paragraph (f)(4)(ii) of 40 CFR 63.6640 (paragraph (i), below), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
  - i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
    - A. The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
    - B. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
    - C. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
    - D. The power is provided only to the facility itself or to support the local transmission and distribution system.
    - E. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall equip and maintain with a non-resettable hour meter to track the number of hours each CI engine operates. **(40 CFR 63.6625(f))**
2. The permittee shall minimize the time spent at idle during startup and minimize the startup time of each CI engine to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. **(40 CFR 63.6625(h))**
3. Each RICE shall be maintained and operated per the manufacturer’s emission related written instructions or develop a maintenance plan which must provide for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions. **(40 CFR 63.6625(e), 40 CFR 63.6640(a), 40 CFR Part 63, Subpart ZZZZ, Table 6 Item 9)**

**V. TESTING/SAMPLING**

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

NA

## **VI. MONITORING/RECORDKEEPING**

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

1. For each RICE, the permittee shall keep in a satisfactory manner, records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(a)(2), 40 CFR 63.6660)**
2. For each RICE, the permittee shall keep in a satisfactory manner, records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(a)(5), 40 CFR 63.6660)**
3. For each RICE, the permittee shall keep in a satisfactory manner, records to demonstrate continuous compliance with operating limitations in SC IV.3. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(d), 40 CFR 63.6660)**
4. For each RICE, the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(e), 40 CFR 63.6660)**
5. For each RICE, the permittee shall keep in a satisfactory manner, records of hours of operation recorded through the non-resettable hour meter. The permittee shall document how many hours were spent during emergency operation, including what classified the operation as emergency, and how many hours were spent during non-emergency operation. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(f), 40 CFR 63.6660)**

## **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

## **VIII. STACK/VENT RESTRICTION(S)**

NA

## **IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all provisions of the federal National Emission Standards for Stationary Reciprocating Internal Combustion Engines as specified in 40 CFR Part 63, Subparts A and ZZZZ, as they apply to the equipment in FGRICEMACT. **(40 CFR Part 63, Subparts A and ZZZZ)**

2. The permittee shall at all times operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the facility to make any further efforts to reduce emissions if levels required by RICE MACT have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.6605(b))**

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## **E. NON-APPLICABLE REQUIREMENTS**

At the time of the ROP issuance, the AQD has determined that the requirements identified in the table below are not applicable to the specified emission unit(s) and/or flexible group(s). This determination is incorporated into the permit shield provisions set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii). If the permittee makes a change that affects the basis of the non-applicability determination, the permit shield established as a result of that non-applicability decision is no longer valid for that emission unit or flexible group.



## APPENDICES

### Appendix 1. Acronyms and Abbreviations

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO <sub>2</sub> e	Carbon Dioxide Equivalent
CEMS	Continuous Emission Monitoring System	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
Department/ department	Michigan Department of Environment, Great Lakes, and Energy	gr	Grains
EU	Emission Unit	HAP	Hazardous Air Pollutant
FG	Flexible Group	Hg	Mercury
GACS	Gallons of Applied Coating Solids	hr	Hour
GC	General Condition	HP	Horsepower
GHGs	Greenhouse Gases	H <sub>2</sub> S	Hydrogen Sulfide
HVLP	High Volume Low Pressure*	kW	Kilowatt
ID	Identification	lb	Pound
IRSL	Initial Risk Screening Level	m	Meter
ITSL	Initial Threshold Screening Level	mg	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunaction Abatement Plan	NMOC	Non-methane Organic Compounds
EGLE	Michigan Department of Environment, Great Lakes, and Energy	NO <sub>x</sub>	Oxides of Nitrogen
MSDS	Material Safety Data Sheet	ng	Nanogram
NA	Not Applicable	PM	Particulate Matter
NAAQS	National Ambient Air Quality Standards	PM10	Particulate Matter equal to or less than 10 microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
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	%	Percent
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO <sub>2</sub>	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

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

## Appendix 2. Schedule of Compliance

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

## Appendix 3. Monitoring Requirements

### Appendix 3-A.

#### **Custom Fuel Monitoring Program (CFMP) For Sources Subject to 40 CFR Part 60, Subpart GG**

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in EUTURBINE1 and EUDUCTBURNER1.

1. Nitrogen
  - a. Monitoring of fuel nitrogen content shall not be required while pipeline quality natural gas, as defined in 40 CFR 72.2, is the only fuel fired in the gas turbine.
2. Sulfur
  - a. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternate method. Reference methods are {as referenced in 40 CFR 60.334(b)(2)}:
    - i. ASTM D1072-80: Total Sulfur in Natural Gas by Hydrogenation
    - ii. ASTM D3031-81: Sulfur in Petroleum Gas by Oxidative Microcoulometry
    - iii. ASTM D4084-82: Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method)
    - iv. Testing for Hydrogen Sulfide in Natural Gas Using Length of Stain Tubes
  - b. Effective the date this schedule is approved, sulfur monitoring shall be conducted as follows:
    - i. Twice monthly for six months,
      - a. if this monitoring shows little variability and represents compliance with the sulfur dioxide emission limits, then:
    - ii. Once per calendar quarter for six calendar quarters,
      - a. if this monitoring show little variability and represents compliance with the sulfur dioxide emission limits, then:
    - iii. Semi-annually, during the first and third calendar quarters of the calendar year.
    - iv. Should any sulfur analysis indicate non-compliance with 40 CFR 60.333, sulfur monitoring shall be conducted weekly during the interim period when this custom monitoring schedule is being re-examined.
  - c. If there is a change in the fuel supply, the owner/operator must notify the Administrator of such changes for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom monitoring schedule is being re-examined.
  - d. The permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbines if gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u). The permittee shall use one of the follow sources of information to make the required demonstration:
    - i. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
    - ii. Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.

The permittee shall keep the required demonstration on file for a period of at least five years and made available to the Air Quality Division upon request. The permittee shall obtain a new copy of the vendor's fuel analysis at least once per every five years. If there is a change in the fuel supply, the owner/operator must notify the Administrator of such changes within one week of the change. The permittee shall obtain a copy of the vendor's fuel sulfur analysis for the new fuel supply within one week of the change and keep it on file for a period of at least five years and made available to the Air Quality Division upon request. A substantial change in fuel quality shall be considered as a change in fuel supply.

3. Fuel analysis can be conducted at a single separate site for multiple plants (engines) provided there are no additional entry points for natural gas or other sulfur containing streams between the proposed sampling site and the plants (engines) in question.
4. Records of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of five years and be available for inspection.

**Appendix 3-B.**  
**Continuous Opacity Monitoring Systems (CEMS)**

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in FGNSPSK KKK.

1. The permittee shall submit two copies of a Monitoring Plan to the AQD, for review and approval. The Monitoring Plan shall include drawings or specifications showing locations and descriptions of the required proposed or existing CEMS.
2. The permittee shall submit two copies of a complete test plan for the proposed CEMS to the AQD for approval.
3. The permittee shall complete the installation and testing of a proposed CEMS.
4. The permittee shall submit to the AQD two copies of the final report demonstrating the CEMS complies with the requirements of Performance Specification (PS) in the following table:

Pollutant	Applicable PS
NOx	2
O <sub>2</sub> & CO <sub>2</sub>	3

5. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.
6. The CEMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and the PS, listed in the table above, of Appendix B to 40 CFR Part 60.
7. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS set forth in Appendix F of 40 CFR Part 60. As an alternative, the permittee may perform the Quality Assurance Procedures for CEMS set forth in Appendix B of 40 CFR Part 75 for EUTURBINE2. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F of 40 CFR Part 60).
8. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:
  - a. A report of each exceedance above the limits specified in the Emission Limits of this permit. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.
  - b. A report of all periods of CEMS downtime and corrective action.
  - c. A report of the total operating time of each emission unit during the reporting period.
  - d. A report of any periods that the CEMS exceeds the instrument range.
  - e. If no exceedances or CEMS downtime occurred during the reporting period, the permittee shall report that fact.

The permittee shall keep all monitoring data on file for a period of at least five years and make them available to the AQD upon request.

**Appendix 4. 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. 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. Permits to Install**

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-A0023-2013. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (\*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-A0023-2013 is being reissued as Source-Wide PTI No. MI-PTI-A0023-2019a.

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

The following table lists the ROP amendments or modifications issued after the effective date of ROP No. MI-ROP-A0023-2019.

Permit to Install Number	ROP Revision Application Number - Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
193-19A	202100098 / October 18, 2021	To incorporate PTI 193-19A, which was to modify EUTURBINE2 to increase the heat input to 150.8 MMBTU/hr from 141.5 MMBTU/hr. The modification of EUTURBINE2 makes the turbine subject to NSPS Subpart KKKK and therefore the associated duct burner is also subject NSPS Subpart KKKK. A flexible group has been added to the permit for this regulation.  Additionally, EUPACKAGEBOIL has been rendered inoperable, so the references to this emission unit have been removed from the ROP.	Source-Wide Conditions EUTURBINE1 EUTURBINE2 EUDUCTBURNER1 EUDUCTBURNER2 EUWAREHOUSEHTRS FGCOGEN FGNSPSKKKK
11-22	202200047 / March 24, 2022	To incorporate PTI No. 11-22, which was to update stacks for paper machine No. 1 (EUPAPERMACHINE1), due to upgrading of the wet end/forming section and the dryer section of the paper machine.	EUPAPERMACHINE1

## **Appendix 7. 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. Reporting**

### **A. Annual, Semiannual, and Deviation Certification Reporting**

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

### **B. Other Reporting**

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