

October 7, 2022

Mr. Michael Conklin
Michigan Department of Environment, Great Lakes, and Energy
Air Quality Division
Marquette Michigan District
1504 West Washington Street
Marquette, MI 49855-3118

Re: Renewable Operating Permit (ROP) Renewal Application
MI-ROP-B1470-2019a

Dear Mr. Conklin:

Enclosed you will find a renewal application for MI-ROP-B1470-2019a for the Neenah Paper Michigan, Inc. located at 1504 West Washington Street, Marquette, Michigan. The renewal application is due no later than September 12, 2023.

This application includes:

- Form EQP 6000 – Renewal Application Form
- Form EQP 5774 – Additional Information
- ROP Mark-up
- Existing Compliance Assurance Monitoring Plan
- Existing Preventative Maintenance and Malfunction Plan

An electronic copy of the application and supporting documents will be provided to the EGLE, which reduces the EGLE application administrative completeness review to 15 days. Please note that we have a new responsible official. He has signed the attached forms.

If you have any questions or require additional information, please contact me at 906.387.7561 or brian.ciupak@neenah.com.

Sincerely,

Brian Ciupak
Environmental Engineer

Attachments

By email and UPS

cc: Lillian L. Woolley, PE – Fishbeck



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 B1470	SIC Code 2611	NAICS Code 322121	Existing ROP Number MI-ROP-B1470-2019a	Section Number (if applicable)
Source Name Neenah Paper Michigan, Inc.				
Street Address 501 E. Munising Avenue				
City Munising	State MI	ZIP Code 49862	County Alger	
Section/Town/Range (if address not available)				
Source Description Neenah Paper Michigan, Inc. produces specialty paper products for writing, text, cover, digital, packaging, and label applications.				
<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 Neenah, Inc.	Section Number (if applicable)			
Mailing address (<input type="checkbox"/> check if same as source address) 3460 Preston Ridge Road Suite 600 Alpharetta, Georgia 30005				
City Alpharetta	State Georgia	ZIP Code 30005	County Fulton	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 Brian Ciupak		Title Environmental Engineer		
Company Name & Mailing address (<input checked="" type="checkbox"/> check if same as source address)				
City	State	ZIP Code	County	Country
Phone number 906.387.7594		E-mail address brian.ciupak@neenah.com		

Contact 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		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name Brian Houghton		Title Mill Manager		
Company Name & Mailing address (<input checked="" type="checkbox"/> check if same as source address)				
City	State	ZIP Code	County	Country
Phone number 906.387.7594		E-mail address brian.houghton@neenah.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		

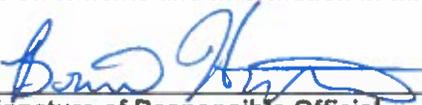
<input type="checkbox"/> Check here if an AI-001 Form is attached to provide more information for Part A. Enter AI-001 Form ID:

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 checked="" 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 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 checked="" 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 <u>all</u> 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)	
Brian Houghton, Mill Manager	
<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>	
	
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 all emission units with applicable requirements (including those identified in the existing ROP, Permits to Install and other equipment that have not yet been incorporated into the ROP) are required to be reported in MAERS. Are there any emissions and associated data that have not been reported in MAERS for the most recent emissions reporting year? If Yes , identify the emission unit(s) that was/were not reported in MAERS on an AI-001 Form. Applicable MAERS form(s) for unreported emission units must be included with this application.	<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 Yes , 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 checked="" type="checkbox"/> No
C4.	Has this stationary source added or modified equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NO _x , PM ₁₀ , PM _{2.5} , SO ₂ , VOC, lead) emissions? If Yes , include potential emission calculations (or the PTI and/or ROP revision application numbers, or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. If No , criteria pollutant potential emission calculations do not need to be included.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C5.	Has this stationary source added or modified equipment since the last ROP renewal that changes the PTE for hazardous air pollutants (HAPs) regulated by Section 112 of the federal Clean Air Act? If Yes , include potential emission calculations (or the PTI and/or ROP revision application numbers or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. Fugitive emissions must be included in HAP emission calculations. If No , HAP potential emission calculations do not need to be included.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C6.	Are any emission units subject to the Cross-State Air Pollution Rule (CSAPR)? If Yes , identify the specific emission unit(s) subject to CSAPR on an AI-001 Form.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C7.	Are any emission units subject to the federal Acid Rain Program? If Yes , identify the specific emission unit(s) subject to the federal Acid Rain Program on an AI-001 Form. Is an Acid Rain Permit Renewal Application included with this application?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
C8.	Are any emission units identified in the existing ROP subject to compliance assurance monitoring (CAM)? If Yes , identify the specific emission unit(s) subject to CAM on an AI-001 Form. If a CAM plan has not been previously submitted to EGLE, one must be included with the ROP renewal application on an AI-001 Form. If the CAM Plan has been updated, include an updated copy. Is a CAM plan included with this application? If a CAM Plan is included, check the type of proposed monitoring included in the Plan: 1. Monitoring proposed by the source based on performance of the control device, or 2. Presumptively Acceptable Monitoring, if eligible	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" 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 Yes , 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 Yes , 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: AI-CAM,AI-MAP	

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 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 type="checkbox"/> Yes <input checked="" 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 source-wide 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 streamline 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)

<p>H8. Does the source propose to add, change and/or delete emission limit 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.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>H9. Does the source propose to add, change and/or delete material limit 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.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>H10. Does the source propose to add, change and/or delete process/operational restriction 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.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>H11. Does the source propose to add, change and/or delete design/equipment parameter 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.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>H12. Does the source propose to add, change and/or delete testing/sampling 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.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>H13. Does the source propose to add, change and/or delete monitoring/recordkeeping 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.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>H14. Does the source propose to add, change and/or delete reporting 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.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SRN:

Section Number (if applicable):

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: B1470

Section Number (if applicable):

1. Additional Information ID
AI-MARKUP

Additional Information

2. Is This Information Confidential?

Yes No

Attached is a copy of the marked up ROP, though no changes are being requested at this time.

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

**KEEP ALL CONDITIONS
NO CHANGES, ADDITIONS, OR DELETIONS**

EFFECTIVE DATE: March 12, 2019
REVISION DATE: September 26, 2019

ISSUED TO

**Neenah Paper Michigan, Inc.
Neenah Paper Michigan, Inc. – Munising, Michigan**

State Registration Number (SRN): B1470

LOCATED AT

501 E. Munising Avenue, Munising, Alger County, Michigan 49862

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B1470-2019a

Expiration Date: March 12, 2024

Administratively Complete ROP Renewal Application Due Between
September 12, 2022 and September 12, 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 Michigan Air Pollution Control Rule 210(1), this ROP constitutes the permittee's authority to operate the stationary source identified above in accordance with the general conditions, special conditions and attachments contained herein. Operation of the stationary source and all emission units listed in the permit are subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-B1470-2019a

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(5) of Act 451. Pursuant to Michigan Air Pollution Control Rule 214a, the terms and conditions herein, identified by the underlying applicable requirement citation of Rule 201(1)(a), constitute a federally enforceable PTI. The PTI terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

Michigan Department of Environment, Great Lakes, and Energy

Ed Lancaster, Marquette 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).² **(R 336.1370)**
10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

Emission Limits

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

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

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

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).² **(R 336.2001)**
14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**
15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

Monitoring/Recordkeeping

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

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which 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.² **(R 336.1912)**

Permit Shield

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

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

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

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

Revisions

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

Reopenings

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

Renewals

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

Stratospheric Ozone Protection

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

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).
39. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates as provided in 40 CFR 68.10(a):
- 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.² **(R 336.1201(1))**
44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.² **(R 336.1201(8), Section 5510 of Act 451)**
45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.² **(R 336.1219)**
46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.² **(R 336.1201(4))**

Footnotes:

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

²This 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

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Each Individual HAP	Less than 9.5 tpy ²	12-month rolling time period as determined at the end of each calendar month	All process equipment source-wide including grandfathered and exempt equipment	SC V.2 SC VI.1 SC VI.2	R 336.1205(1)(a)&(b)
2. Aggregate HAPs	Less than 23.5 tpy ²	12-month rolling time period as determined at the end of each calendar month	All process equipment source-wide including grandfathered and exempt equipment	SC V.2 SC VI.1 SC VI.2	R 336.1205(1)(a)&(b)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

- The permittee shall determine emission rates for Hydrogen Chloride, Arsenic, Phosphorous, Manganese, Barium, Chromium, and lead and determine the Hydrogen Chloride control efficiency from EU05 (using exhaust emissions and the chlorine in the coal) by testing at owner's expense, in accordance with Department requirements. The permittee must complete the test once every five years, thereafter. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 63, Appendix A. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. Verification of emission rates includes the submittal of 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.² **(R 336.1205(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004)**
- The permittee shall determine the HAP content of any coating as received and as applied, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using USEPA Test Method 311 or other appropriate test method.² **(R 336.1205(1)(a) & (b))**

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 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. Formulation data (which identifies HAP content down to the 0.1 percent) can be used in completing calculations.² **(R 336.1205(1)(a) & (b))**
2. The permittee shall keep the following information on a monthly basis:
 - a. The quantity of each HAP containing material used or emitted.
 - b. The HAP emission factor of each HAP containing material used or emitted. (Emission factors are to be based on testing at the facility, manufacturer's formulation data, or as approved by the AQD District Supervisor.)
 - c. Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
 - d. Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205(1)(a)&(b))**

See Appendix 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. The permittee shall submit any performance test 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)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

C. EMISSION UNIT CONDITIONS

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

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

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU05	BOILER #1, BAGHOUSE AND STACK: The boiler can burn coal and natural gas. The boiler capacity is 202 MMBTU/hr heat input. The baghouse is utilized to reduce emissions of particulate. The Spray Dry Absorber (SDA) is used to reduce HAP emissions. EU05 is a CAM subject emission unit subject to the requirements of 40 CFR Part 64.	01/01/1958 / 1997/ 05/01/2015	FGJJJJJJ-EU05
EU15	BOILER #2 AND STACK: This boiler is only capable of burning #2 fuel oil. Boiler produces 150,000 lbs. of steam per hr. Boiler capacity is 202 MMBTU/hour heat input.	1970	FGJJJJJJ-EU15
EUPM1COATER	Paper Machine coater #1 and associated equipment and natural gas fueled oven.	1989	FGPM1COATER
EUPAPERMACHINE1	Paper machine #1 uses steam heated dryers.	1903 & 1989	NA
EUPAPERMACHINE2	Paper machine #2 uses steam heated dryers.	1903	NA
EUPM1SATURATOR	Paper machine #1 saturator uses natural gas and steam heated dryers.	1989	FGSATURATORS&COATERS
EUPM2SATURATOR	Paper machine #2 saturator uses natural gas and steam heated dryers.	1903	FGSATURATORS&COATERS
EUSATURATOR15	Saturator #15 uses steam heated dryers and ovens.	1964	FGSATURATORS&COATERS
EUSATURATOR18	Saturator #18 uses steam heated dryers and ovens.	1968	FGSATURATORS&COATERS
EUCOATER16	Coater #16 uses steam heated ovens.	1966	FGSATURATORS&COATERS
EUCOATER17	Coater #17 uses steam heat and natural gas ovens.	1966	FGSATURATORS&COATERS
EUCOATER19	Coater #19 uses steam heat and natural gas ovens.	1976	FGSATURATORS&COATERS

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCOLDCLEANER	Any existing cold cleaner (placed into operation prior to 7/1/79) or new cold cleaner (placed into operation after 7/1/79) that is exempt from NSR permitting by R 336.1281(h) or R 336.1285 (r)(iv).	2000	FGCOLDCLEANERS
EUPOWERGENERATOR	Emergency diesel-fired power generator located (7.63 MMBTU/hr heat input) in the Power House that would be used to restart the mill operations in the event of a power failure.	1978	FGEMERGENCYENGINES
EUFIREPUMPGEN	Emergency fire pumps with diesel engine (6.02 MMBTU/hr heat input).	1972	FGEMERGENCYENGINES
EUWWTPGENERATOR	Emergency diesel-powered generator (3.40 MMBTU/hr heat input) that would allow the wastewater treatment system to continue operation in the event of a power failure.	1996	FGEMERGENCYENGINES
EUHEATERS	Five (5) natural gas-fired heating units (3 units – 7.975 MMBTU/hr, 1 unit – 5.5 MMBTU/hr, 1 unit – 1.925 MMBTU/hr)	Prior to 1978	NA

**EU05
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Boiler, baghouse, stack, coal, and ash handling: Boiler EU05 is capable of burning coal and natural gas. The boiler capacity is 202 MMBTU/Hr heat input. The baghouse is utilized to reduce emissions of particulate. Sorbent Dry Absorber (SDA) will be installed to reduce HAP emissions.

EU05 is a CAM subject emission unit subject to the requirements of 40 CFR Part 64. The CAM subject pollutant for the emission unit is PM-10.

Flexible Group ID: FGJJJJJJ-EU05

POLLUTION CONTROL EQUIPMENT

Fabric filter baghouse to control particulate matter emissions and a spray dry absorber (SDA) to control HAP emissions.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.30 lbs/1000 lbs of exhaust gases corrected to 50% excess air ²	Hourly	EU05	SC V.1	R 336.1331(1)(a)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Coal	Sulfur Content less than or equal to 1.5 percent by weight (calculated on the basis of 12,000 BTUs per pound of coal) ²	Continuous	EU05	SC VI. 2	R 336.1401(1)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. If less than three baghouse modules (out of five) are operating at the baghouse collector, the permittee shall implement corrective action and maintain a record of action taken to prevent reoccurrence.² **(R 336.1910)**
2. The permittee shall operate and maintain EU05 according to the approved Preventative Maintenance and Malfunction Abatement Plan (PM/MAP). At a minimum the plan shall contain the following:² **(R 336.1910, R336.1911)**
 - a. Operation and maintenance criteria for EU05, add-on control device(s), and for the process and control device(s) monitoring equipment as well as a standardized checklist to document the operation and maintenance of the equipment;
 - b. The work practice standards for the add-on control device(s) and monitoring equipment;
 - c. Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur; and

- d. A systematic procedure for identifying process equipment, add-on control device(s) and monitoring equipment malfunctions and for implementing corrective actions to address such malfunctions.
3. If at any time the PM/MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the PM/MAP within 45 days after such an event occurs. The permittee shall also amend the PM/MAP within 45 days if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the PM/MAP and any amendments to the PM/MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the PM/MAP or amended PM/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.² **(R 336.1911)**
4. Upon detecting an excursion of the opacity limit, the permittee shall restore operation of EU05 to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. An excursion is two or more consecutive 1-hour block average opacity values greater than 20%. **(40 CFR 64.6, 40 CFR 64.7)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain the baghouse collector for EU05 with a pressure drop indicator.² **(R 336.1205(1)(a), R 336.1910)**
2. The permittee shall not operate EU05 unless the SDA is installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes operating and maintaining the control device in accordance with an approved PM/MAP.² **(R 336.1205(1)(a), R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years.² **(R 336.1213(3)(b)(ii))**

1. The permittee shall verify PM emission rates from EU05 by testing at the owner's expense, in accordance with the Department requirements once every three years from the date of the previous stack test. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. ² **(R 336.1331, R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.² **(R 336.1213(3)(b)(ii))**

1. The permittee shall carry out an Inspection and Maintenance Program for EU05, Coal Handling and Storage Equipment, Ash Handling and Storage Equipment and Associated Air Cleaning Devices as detailed in Appendix 4 to assure that the air cleaning devices are installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law.² **(R 336.1910)**
2. The permittee shall monitor and record the fuel sulfur content for EU05 as detailed in Appendix 4.² **(R 336.1401(1))**
3. The permittee shall continuously monitor and record the pressure drop as an indicator of proper operation of the fabric filter baghouse. The pressure drop gauges (magnehelic gauges) will be maintained per the manufacturer's operation and maintenance procedures. Out of range values will be alarmed and corrective actions documented. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205(1)(a), R 336.1910, 40 CFR 64.6(c)(1)(i and ii))**

4. When EU05 is operating, the permittee shall operate, calibrate, and maintain a COM system on the baghouse for EU05. The permittee shall keep a summary record of all six-minute averages of opacity greater than 20%, except for one six-minute average per hour of not more than 27% opacity, including cause if known, and corrective action taken. Also, the permittee shall keep a summary record of opacity monitor downtime. The permittee shall submit these summary records with the semiannual reports.² **(R 336.1301)**
5. The COM system shall comply with Performance Specification 1 of Appendix B and Procedure 3 of Appendix F, 40 CFR Part 60.² **(R 336.2150(1)(a), 40 CFR 64.6(c)(1)(iii))**
6. Data recorded during monitoring malfunctions, associated repairs, and required QA/QC activities shall not be used for 40 CFR Part 64 compliance. **(40 CFR 64.6, 40 CFR 64.7, 40 CFR 64.9)**
7. The permittee shall utilize COM-recorded opacity as an indicator of the proper operation of the fabric filter baghouse. The indicator range of opacity defining proper function of the fabric filter baghouse is less than 20%. Six-minute average values shall be based on 36 or more equally spaced instantaneous opacity measurements per six-minute period. The COM shall be calibrated in accordance with 40 CFR Part 60, Subpart A. **(40 CFR 64.6(c)(1)(i and ii))**
8. The opacity monitor shall continuously monitor opacity. The averaging period is six minutes. The monitor shall be calibrated daily. The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 64.6(c)(1)(iii))**
9. An excursion is two or more consecutive 1-hour block average opacity values greater than 20%. **(40 CFR 64.6(c)(2))**
10. The permittee shall continuously monitor the specific gravity of the SDA reagent and the SDA flue gas exit temperature and record hourly as an indicator of proper operation of the scrubber for comparison to acceptable operating ranges identified in the PM/MAP. Acceptable operating ranges will be defined through stack testing or manufacturer's recommended operation and both testing information and operating ranges will be included in the PM/MAP. The PM/MAP will also identify periods of operation (i.e., startup, shutdown, SDA maintenance, etc.) where these operating ranges will not apply as well as define expected responses to operation outside of the acceptable operating ranges. **(40 CFR 64.6(c)(1)(i and ii))**
11. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). **(40 CFR 64.7(d))**
12. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**
13. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
14. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and

other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

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. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR 64.9(a)(2)(i))**
- 5. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**
- 6. 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. SV05	86 ²	135 ²	R 336.1225

IX. OTHER REQUIREMENT(S)

- 1. The permittee shall maintain the continuous opacity monitor associated with EU05. This includes, but is not limited to, maintaining the necessary parts for routine repairs of the monitor, and maintaining the monitor according to manufacturer's specifications (e.g., equipment calibration, etc.). **(40 CFR 64.6, 40 CFR 64.7)**
- 2. The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**

3. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.² **(40 CFR Part 63, Subparts A and JJJJJJ)**

Footnotes:

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

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

EU15
EMISSION UNIT CONDITIONS

DESCRIPTION

Boiler #2 and stack: Boiler #2 has a rated capacity of 202 MMBtu/hour heat input and burns #2 fuel oil. The boiler produces 150,000 lbs. of steam per hour. Boiler #2 is being used as a “limited-use” boiler as defined in 40 CFR, Part 63, Subpart JJJJJJ.

Flexible Group ID: FGJJJJJJ-EU15

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Sulfur Dioxide	1.7 pounds per million BTUs of heat input for fuel oil	According to Method	EU15	SC VI.1	R 336.1402(1)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. No. 2 fuel oil	Maximum sulfur content of 1.6% calculated on the basis of 18,000 BTUs per pound of fuel oil.	According to Method	EU15	SC VI.1 SC. VI.2	R 336.1213(2)

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

See Appendix 5

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 obtain and keep records of the sulfur content of the fuel oil burned in EU15 as detailed in Appendix 4. (R 336.1213(3))

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)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

- 1. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers. (40 CFR Part 63, Subparts A and JJJJJJ)

Footnotes:

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

D. FLEXIBLE GROUP 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
FGPM1COATER	Paper Machine #1 coater, dryers and stack. Paper machine #1 converts pulp and water mixture into a sheet of uniform thickness. The dryers are used to remove moisture at a predetermined rate. Paper is coated on the machine.	EUPM1COATER
FGSATURATORS&COATERS	Paper Machine #1 saturator, Paper Machine #2 saturator, Saturators #15 and 18 and ovens, and Coaters #16, 17 and 19.	EUPM1SATURATOR EUPM2SATURATOR EUSATURATOR15 EUSATURATOR18 EUCOATER16 EUCOATER17 EUCOATER19
FGCOLDCLEANERS	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	EUCOLDCLEANER
FGEMERGENCYENGINES	Emergency engines exempt from the requirements of Rule 201 pursuant to Rules 278 and 285(g). These engines are used to run the mill, the fire pump and the wastewater treatment system in the event of a power failure. Each is an existing emergency, combustion ignition (CI) reciprocating internal combustion engine (RICE) greater than 500 brake hp.	EUPOWERGENERATOR EUFIREPUMPGEN EUWWTPGENERATOR
FGJJJJJJ-EU05	Conditions for any existing large (≥ 10 MMBtu/hour heat input) coal-fired industrial, commercial or institutional boiler as defined in 40 CFR 63.11237 (excluding limited use boilers) that is located at, or is part of, an area source of hazardous air pollutants (HAP), as defined in 40 CFR 63.2, except as specified in 40 CFR 63.11195.	EU05

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FJJJJJ-EU15	Conditions for existing oil-fired, industrial, commercial or institutional limited-use boiler as defined in 40 CFR 63.11237 that is located at, or is part of, an area source of hazardous air pollutants (HAP), as defined in 40 CFR 63.2, except as specified in 40 CFR 63.11195.	EU15

**FGPM1COATER
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Paper Machine #1 coater, dryers and stack. Paper machine #1 converts pulp and water mixture into a sheet of uniform thickness. The dryers are used to remove moisture at a predetermined rate. Paper is coated on the machine.

Emission Unit: EUPM1COATER

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	7.8 tpy ²	12-month rolling time period as determined at the end of the calendar month	FGPM1COATER	SC VI.2, SC VI.3	R 336.1702
2. VOC	12 pph ²	Hourly	FGPM1COATER	SC V.1 SCVI.2 SC VI.3	R 336.1702
3. Acrylonitrile	0.19 mg/m ³ , corrected to 70°F and 29.92 inches Hg ¹	Hourly	FGPM1COATER	SC V.1 SCVI.2 SC VI.3	R 336.1225
4. Formaldehyde	6.3 mg/m ³ , corrected to 70°F and 29.92 inches Hg ¹	Hourly	FGPM1COATER	SC V.1 SCVI.2 SC VI.3	R 336.1225

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not fire any fuel in the dryers of FGPM1COATER other than sweet natural gas.² **(R 336.1205(1)(a))**
2. The permittee shall handle all VOC and/or HAP containing materials, including coatings, reducers, solvents and thinners, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary.² **(R 336.1205(1)(a) & (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 of the AQD District Supervisor, the permittee shall verify VOC, acrylonitrile, and formaldehyde emission rates from FGPM1COATER by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved USEPA Method listed in:

Pollutant	Test Method Reference
VOC	40 CFR Part 60, Appendix A
HAPs	40 CFR Part 63, Appendix A

An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1225, R 336.1702, R 336.2001, R 336.2003, R 336.2004)**

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 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1225, R 336.1702)**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.17021702)**
3. The permittee shall keep the following information on a monthly basis for FGPM1COATER:
 - a. Gallons (with water) of each coating used.
 - b. VOC content (with water) of each coating as applied.
 - c. VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - d. VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702)**

4. The permittee shall monitor and record the paper machine feed rate from the paper machine #1 on a continuous basis in a manner and with instrumentation acceptable to the AQD. All data shall be kept on file and made available to the Department upon request.² **(R 336.1205(1)(a) & (b))**

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. The permittee shall submit any performance test 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. SVPM1COATER	44.8 x 30.3 ²	90 ²	R 336.1225

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**FGSATURATORS&COATERS
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Paper Machine #1 saturator, Paper Machine #2 saturator, Saturator #15 and #18 and ovens, and Coaters #16, #17, and #19.

Emission Units: EUPM1SATURATOR, EUPM2SATURATOR, EUSATURATOR15, EUSATURATOR18, EUCOATER16, EUCOATER17, EUCOATER19

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOCs	2.9 lb/gal (minus water) ^a as applied	Daily volume-weighted average.	Each emission unit in FGSATURATORS& COATERS	SC VI.2 SC VI.3	R 336.1610(2)(f) R 336.1702(d)

^a The phrase “minus water” shall also include compounds which are used as organic solvents and which are excluded from the definition of volatile organic compound. **(R 336.1602(4))**

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall handle all VOC and/or HAP containing materials, including coatings, reducers, solvents and thinners, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1205(3), R 336.1213(2))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

See Appendix 5

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 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1213(3))**
2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, including the weight percent of each component. The data may consist of Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1213(3))**
3. The permittee shall keep the following information on a daily basis for FGSATURATORS&COATERS:
 - a. Gallons (with water) of each coating used.
 - b. VOC content (minus water and with water) of each coating as applied.
 - c. VOC emission calculations determining the volume-weighted average VOC content of the coatings as applied on a daily basis.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1213(3))**

See Appendix 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
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**FGEMERGENCYENGINES
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Emergency engines exempt from the requirements of Rule 201 pursuant to Rules 278 and 285(g). These engines are used to run the mill, the fire pump and the wastewater treatment system in the event of a power failure. Each is an existing emergency, combustion ignition (CI) reciprocating internal combustion engine (RICE) greater than 500 brake hp.

Emission Units: EUPOWERGENERATOR, EUFIREPUMPGEN, EUWWTPGENERATOR

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

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

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Diesel fuel	Maximum sulfur content of 15 ppm (0.0015 percent by weight)	Continuous	FGEMERGENCYENGINES	SC VI. 2	40 CFR 63.6604(b), 40 CFR 80.510(b)
2. Diesel fuel	Minimum cetane index of 40 or maximum aromatic content of 35 volume percent	Continuous	FGEMERGENCYENGINES	SC VI. 3	40 CFR 63.6604(b), 40 CFR 80.510(b)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

- 1. The permittee shall install a non-resettable hour meter on each engine in FGEMERGENCYENGINE. **(40 CFR 63.6640(f))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. For each engine in FGEMERGENCYENGINE, 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 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 63.6640(f), 40 CFR 63.6660)**
2. The permittee shall obtain and keep records of the sulfur content of the fuel oil burned as detailed in Appendix 4. **(R 336.1213(3))**
3. The permittee shall obtain and keep records of the cetane index or aromatic content of the fuel oil burned in FGEMERGENCYENGINES. **(40 63.6604(b), 40 CFR 80.510(b))**

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)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. **(40 CFR Part 63, Subparts and ZZZZ)**

**FGCOLDCLEANERS
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

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

Emission Unit: EUCOLDCLEANER

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

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

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Cleaning Solvents	Less than 5% by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof	Continuous	FGCOLDCLEANERS	SC VI. 2(g)	R 336.1213(2)

III. PROCESS/OPERATIONAL RESTRICTION(S)

- Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. (R 336.1611(2)(b), R 336.1707(3)(b))
- The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. (R 336.1213(3))

IV. DESIGN/EQUIPMENT PARAMETER(S)

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

- a. The air/vapor interface of the cold cleaner is no more than ten square feet. **(R 336.1281(h))**
- b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. **(R 336.1285(r)(iv))**
2. The cold cleaner shall be equipped with a device for draining cleaned parts. **(R 336.1611(2)(b), R 336.1707(3)(b))**
3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. **(R 336.1611(2)(a), R 336.1707(3)(a))**
4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. **(R 336.1707(3)(a))**
5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120°F, then the cold cleaner must comply with at least one of the following provisions:
 - a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. **(R 336.1707(2)(a))**
 - b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. **(R 336.1707(2)(b))**
 - c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. **(R 336.1707(2)(c))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. For each new cold cleaner in which the solvent is heated, the solvent temperature shall be monitored and recorded at least once each calendar week during routine operating conditions. **(R 336.1213(3))**
2. The permittee shall maintain the following information on file for each cold cleaner: **(R 336.1213(3))**
 - a. A serial number, model number, or other unique identifier for each cold cleaner.
 - b. The date the unit was installed, manufactured or that it commenced operation.
 - c. The air/vapor interface area for any unit claimed to be exempt under Rule 281(h).
 - d. The applicable Rule 201 exemption.
 - e. The Reid vapor pressure of each solvent used.
 - f. If applicable, the option chosen to comply with Rule 707(2).
 - g. Chemical content of the cleaning solvent used in each cold cleaner
3. The permittee shall maintain written operating procedures for each cold cleaner. These written procedures shall be posted in an accessible, conspicuous location near each cold cleaner. **(R 336.1611(3), R 336.1707(4))**
4. As noted in Rule 611(2)(c) and Rule 707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in non-closed containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20%, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis. **(R 336.1213(3), R 336.1611(2)(c), R 336.1707(3)(c))**

VII. REPORTING

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

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

NA

**FGJJJJJJ-EU05
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Conditions for any existing large (≥ 10 MMBtu/hour heat input) coal-fired industrial, commercial or institutional boiler as defined in 40 CFR 63.11237 (excluding limited use boilers) that is located at, or is part of, an area source of hazardous air pollutants (HAP), as defined in 40 CFR 63.2, except as specified in 40 CFR 63.11195.

Emission Unit: EU05

POLLUTION CONTROL EQUIPMENT

Fabric filter baghouse to control particulate matter emissions and spray dry absorber (SDA) to control HAP emissions.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Mercury	2.2×10^{-05} lb/mmBtu heat input	Hourly except for periods of startup and shutdown	EU05	SC V.1-11	40 CFR 63.11201(a) and Table 1.6.a
2. CO	420 ppmvd @ 3% O ₂	Hourly except for periods of startup and shutdown	EU05	SC V.1-5	40 CFR 63.11201(a) and Table 1.6.b

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee must comply with each work practice standard, emission reduction measure, and management practice specified in Table 2 to 40 CFR Part 63, Subpart JJJJJJ that applies to EU05. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in Table 2 of 40 CFR Part 63, Subpart JJJJJJ satisfies the energy assessment requirement. A facility that operates under an energy management program established through energy management systems compatible with ISO 50001, that includes the affected units, also satisfies the energy assessment requirement. **(40 CFR 63.11201(b))**
- The permittee must comply with the operating limit specified in Table 3 of 40 CFR Part 63, Subpart JJJJJJ for boilers that operate dry control systems. The boiler must maintain opacity to less than or equal to 10% opacity (daily block average). **(40 CFR 63.11201(c))**
- The permittee must minimize startup and shutdown periods following the manufacturer's recommended procedures, if available. If manufacturer's recommended procedures are not available, the permittee must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. The permittee must submit a signed statement in the Notification of Compliance Status report that indicates that the permittee conducted startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available. **(40 CFR 63.11214(d), 40 CFR 63.11223(g))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee must conduct all performance tests according to 40 CFR 63.7(c), (d), (f), and (h). The permittee must also develop a site-specific test plan according to the requirements in 40 CFR 63.7(c). **(40 CFR 63.11212(a))**
2. The permittee must conduct each stack test according to the requirements in Table 4 of 40 CFR Part 63, Subpart JJJJJJ. **(40 CFR 63.11212(b))**
3. The permittee must conduct performance stack tests at the representative operating load conditions while burning the type of fuel or mixture of fuels that have the highest emissions potential for each regulated pollutant, and the permittee must demonstrate initial compliance and establish the permittee's operating limits based on these performance stack tests. For subcategories with more than one emission limit, these requirements could result in the need to conduct more than one performance stack test. Following each performance stack test and until the next performance stack test, the permittee must comply with the operating limit for operating load conditions specified in Table 3 of 40 CFR Part 63, Subpart JJJJJJ. **(40 CFR 63.11212(c))**
4. The permittee must conduct a minimum of three separate test runs for each performance stack test required in 40 CFR 63.11212, as specified in Section 63.7(e)(3) and in accordance with the provisions in Table 4 of 40 CFR Part 63, Subpart JJJJJJ. **(40 CFR 63.11212(d))**
5. To determine compliance with the emission limits, the permittee must use the F-Factor methodology and equations in Sections 12.2 and 12.3 of USEPA Method 19 of Appendix A-7 to 40 CFR Part 60 of this chapter to convert the measured mercury concentrations that result from the performance test to pounds per million Btu heat input emission rates. **(40 CFR 63.11212(e))**
6. If the permittee elects to demonstrate compliance with an applicable mercury emission limit through fuel analysis, the permittee must conduct fuel analyses according to 40 CFR 63.11213 and Table 5 of 40 CFR Part 63, Subpart JJJJJJ and follow the procedures in paragraphs (c)(1) through (3) of 40 CFR 63.11211, as listed below. **(40 CFR 63.11211(c))**
 - a. If the permittee burns more than one fuel type, the permittee must determine the fuel type, or mixture, the permittee could burn in the boiler that would result in the maximum emission rates of mercury. **(40 CFR 63.11211(c)(1))**
 - b. The permittee must determine the 90th percentile confidence level fuel mercury concentration of the composite samples analyzed for each fuel type using Equation 1 of 40 CFR 63.11211:

$$P_{90} = \text{mean} + (\text{SD} * t) \quad (\text{Eq. 1})$$

Where:

P_{90} = 90th percentile confidence level mercury concentration, in pounds per million Btu.

mean = Arithmetic average of the fuel mercury concentration in the fuel samples analyzed according to 40 CFR 63.11213, in units of pounds per million Btu.

SD = Standard deviation of the mercury concentration in the fuel samples analyzed according to 40 CFR 63.11213, in units of pounds per million Btu.

t = t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table. **(40 CFR 63.11211(c)(2))**

- c. To demonstrate compliance with the applicable mercury emission limit, the emission rate that the permittee calculates for the boiler using Equation 1 of this 40 CFR must be less than the applicable mercury emission limit. **(40 CFR 63.11211(c)(3))**

7. The permittee must conduct fuel analyses according to the procedures in paragraphs (b) and (c) of 40 CFR 63.11213, stated in SC V.8 and SC V.9, respectively, and Table 5 of 40 CFR Part 63, Subpart JJJJJJ, as applicable. The permittee is not required to conduct fuel analyses for fuels used for only startup, unit shutdown, and transient flame stability purposes. The permittee is required to conduct fuel analyses only for fuels and units that are subject to emission limits for mercury in Table 1 of 40 CFR Part 63, Subpart JJJJJJ. **(40 CFR 63.11213(a))**
8. At a minimum, the permittee must obtain three composite fuel samples for each fuel type according to the procedures in Table 5 of 40 CFR Part 63, Subpart JJJJJJ. Each composite sample must consist of a minimum of three samples collected at approximately equal intervals during a test run period. **(40 CFR 63.11213(b))**
9. The permittee must determine the concentration of mercury in the fuel in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 5 of 40 CFR Part 63, Subpart JJJJJJ. **(40 CFR 63.11213(c))**
10. The permittee must conduct all applicable performance (stack) tests according to 40 CFR 63.11212 on a triennial basis, except as specified in paragraphs (c) and (d) of 40 CFR 63.11220, stated in SC V.11. Triennial performance tests must be completed no more than 37 months after the previous performance test. **(40 CFR 63.11220(a))**
11. If the permittee demonstrates compliance with the mercury emission limit based on fuel analysis, the permittee must conduct a fuel analysis according to 40 CFR 63.11213 for each type of fuel burned as specified in paragraphs (d)(1) and (3) of 40 CFR 63.11220, as listed below.
 - a. When demonstrating initial compliance with the mercury emission limit, if the mercury constituents in the fuel or fuel mixture are measured to be equal to or less than half of the mercury emission limit, the permittee does not need to conduct further fuel analysis sampling but must continue to comply with all applicable operating limits and monitoring requirements. **(40 CFR 63.11220(d)(1))**
 - b. When demonstrating initial compliance with the mercury emission limit, if the mercury constituents in the fuel or fuel mixture are greater than half of the mercury emission limit, the permittee must conduct quarterly sampling. **(40 CFR 63.11220(d)(3))**

See Appendix 5

VI. MONITORING/RECORDKEEPING

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

1. If the permittee demonstrates compliance with any applicable emission limit through performance stack testing and subsequent compliance with operating limits (including the use of CPMS), with a CEMS, or with a COMS, the permittee must develop a site-specific monitoring plan according to the requirements in paragraphs (c)(1) through (3) of 40 CFR 63.11205, as listed below, for the use of any CEMS, COMS, or CPMS. This requirement also applies to the permittee if the permittee petitions the USEPA Administrator for alternative monitoring parameters under 40 CFR 63.8(f). **(40 CFR 63.11205(c))**
 - a. For each CMS required in 40 CFR 63.11205 (including CEMS, COMS, or CPMS), the permittee must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan that addresses paragraphs (c)(1)(i) through (vi) of 40 CFR 63.11205, as listed below. The permittee must submit this site-specific monitoring plan, if requested, at least 60 days before the permittee's initial performance evaluation of the permittee's CMS. This requirement to develop and submit a site-specific monitoring plan does not apply to affected sources with existing CEMS or COMS operated according to the performance specifications under Appendix B to 40 CFR Part 60 of this chapter and that meet the requirements of 40 CFR 63.11224. **(40 CFR 63.11205(c)(1))**
 - i. Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device). **(40 CFR 63.11205(c)(1)(i))**
 - ii. Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems. **(40 CFR 63.11205(c)(1)(ii))**

- iii. Performance evaluation procedures and acceptance criteria (e.g., calibrations). **(40 CFR 63.11205(c)(1)(iii))**
 - iv. Ongoing operation and maintenance procedures in accordance with the general requirements of 40 CFR 63.8(c)(1)(ii), (c)(3), and (c)(4)(ii). **(40 CFR 63.11205(c)(1)(iv))**
 - v. Ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR 63.8(d). **(40 CFR 63.11205(c)(1)(v))**
 - vi. Ongoing recordkeeping and reporting procedures in accordance with the general requirements of 40 CFR 63.10(c) (as applicable in Table 8 of 40 CFR Part 63, Subpart JJJJJJ), (e)(1), and (e)(2)(i). **(40 CFR 63.11205(c)(1)(vi))**
- b. The permittee must conduct a performance evaluation of each CMS in accordance with the permittee's site-specific monitoring plan. **(40 CFR 63.11205(c)(2))**
 - c. The permittee must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan. **(40 CFR 63.11205(c)(3))**
2. The permittee must monitor and collect data according to 40 CFR 63.11221 and the site-specific monitoring plan required by 40 CFR 63.11205(c), stated in SC VI.1. **(40 CFR 63.11221(a))**
 3. The permittee must operate the monitoring system and collect data at all required intervals at all times the affected source is operating and compliance is required, except for periods of monitoring system malfunctions or out-of-control periods (see 40 CFR 63.8(c)(7) of 40 CFR 63), repairs associated with monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in the permittee's site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The permittee is required to complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable. **(40 CFR 63.11221(b))**
 4. The permittee may not use data collected during monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods or required monitoring system quality assurance or quality control activities in calculations used to report emissions or operating levels. Any such periods must be reported according to the requirements in 40 CFR 63.11225. The permittee must use all the data collected during all other periods in assessing the operation of the control device and associated control system. **(40 CFR 63.11221(c))**
 5. Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in the permittee's site-specific monitoring plan), failure to collect required data is a deviation of the monitoring requirements. **(40 CFR 63.11221(d))**
 6. The permittee must demonstrate continuous compliance with each emission limit and operating limit in Tables 1 and 3 of 40 CFR Part 63, Subpart JJJJJJ that applies to the permittee according to the methods specified in Table 7 of 40 CFR Part 63, Subpart JJJJJJ and to paragraphs (a)(1) through (4) of 40 CFR 63.11222, as listed below. **(40 CFR 63.11222(a))**
 - a. Following the date on which the initial compliance demonstration is completed or is required to be completed under 40 CFR 63.7 and 63.11196, the permittee must continuously monitor the operating parameters. Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits specified in paragraph (a) of 40 CFR 63.11222 constitutes a deviation from the operating limits established under 40 CFR Part 63, Subpart JJJJJJ, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. Operating limits are confirmed or reestablished during performance tests. **(40 CFR 63.11222(a)(1))**

- b. If the permittee has an applicable mercury limit, the permittee must keep records of the type and amount of all fuels burned in each boiler during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would result in lower emissions of mercury than the applicable emission limit (if permittee demonstrates compliance through fuel analysis), or result in lower fuel input of mercury than the maximum values calculated during the last performance stack test (if permittee demonstrates compliance through performance stack testing). **(40 CFR 63.11222(a)(2))**
7. If the permittee's boiler is subject to a CO emission limit in Table 1 of 40 CFR Part 63, Subpart JJJJJJ, the permittee must install, calibrate, operate, and maintain an oxygen analyzer system, as defined in 40 CFR 63.11237, according to the manufacturer's recommendations and paragraphs (a)(7) and (d) of 40 CFR 63.11224, as applicable, by the compliance date specified in 40 CFR 63.11196. Oxygen monitors and oxygen trim systems must be installed to monitor oxygen in the boiler flue gas, boiler firebox, or other appropriate intermediate location. **(40 CFR 63.11224(a))**
8. The permittee must operate the oxygen analyzer system at or above the minimum oxygen level that is established as the operating limit according to Table 6 to this subpart when firing the fuel or fuel mixture utilized during the most recent CO performance stack test. Operation of oxygen trim systems to meet these requirements shall not be done in a manner which compromises furnace safety. **(40 CFR 63.11224(a)(7))**
9. If the permittee is using a control device to comply with the emission limits specified in Table 1 of 40 CFR Part 63, Subpart JJJJJJ, the permittee must maintain each operating limit in Table 3 of 40 CFR Part 63, Subpart JJJJJJ that applies to the permittee's boiler as specified in Table 7 of 40 CFR Part 63, Subpart JJJJJJ. If the permittee uses a control device not covered in Table 3 of 40 CFR Part 63, Subpart JJJJJJ, or the permittee wishes to establish and monitor an alternative operating limit and alternative monitoring parameters, the permittee must apply to the USEPA Administrator for approval of alternative monitoring under 40 CFR 63.8(f). **(40 CFR 63.11224(b))**
10. If the permittee demonstrates compliance with any applicable emission limit through stack testing and subsequent compliance with operating limits, the permittee must develop a site-specific monitoring plan according to the requirements in paragraphs (c)(1) through (4) of 40 CFR 63.11224, as listed below. This requirement also applies to the permittee if the permittee petitions the USEPA Administrator for alternative monitoring parameters under 40 CFR 63.8(f). **(40 CFR 63.11224(c))**
- a. For each CMS required in 40 CFR 63.11224, the permittee must develop, and submit to the USEPA Administrator for approval upon request, a site-specific monitoring plan that addresses paragraphs (c)(1)(i) through (iii) of 40 CFR 63.11224, as listed below. The permittee must submit this site-specific monitoring plan (if requested) at least 60 days before the permittee's initial performance evaluation of the permittee's CMS. **(40 CFR 63.11224(c)(1))**
- i. Installation of the CMS sampling probe or other interface at a measurement location relative to each affected unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device). **(40 CFR 63.11224(c)(1)(i))**
- ii. Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems. **(40 CFR 63.11224(c)(1)(ii))**
- iii. Performance evaluation procedures and acceptance criteria (e.g., calibrations). **(40 CFR 63.11224(c)(1)(iii))**
- b. In the permittee's site-specific monitoring plan, the permittee must also address paragraphs (c)(2)(i) through (iii) of 40 CFR 63.11224, as listed below. **(40 CFR 63.11224(c)(2))**
- i. Ongoing operation and maintenance procedures in accordance with the general requirements of 40 CFR 63.8(c)(1), (3), and (4)(ii). **(40 CFR 63.11224(c)(2)(i))**
- ii. Ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR 63.8(d). **(40 CFR 63.11224(c)(2)(ii))**
- i. Ongoing recordkeeping and reporting procedures in accordance with the general requirements of 40 CFR 63.10(c), (e)(1), and (e)(2)(i). **(40 CFR 63.11224(c)(2)(iii))**
- c. The permittee must conduct a performance evaluation of each CMS in accordance with the permittee's site-specific monitoring plan. **(40 CFR 63.11224(c)(3))**

- d. The permittee must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan. **(40 CFR 63.11224(c)(4))**
11. If the permittee has an applicable opacity operating limit under this rule, the permittee must install, operate, certify and maintain each COMS according to the procedures in paragraphs (e)(1) through (8) of 40 CFR 63.11224, as listed below. **(40 CFR 63.11224(e))**
- a. Each COMS must be installed, operated, and maintained according to PS 1 of 40 CFR Part 60, Appendix B. **(40 CFR 63.11224(e)(1))**
 - b. The permittee must conduct a performance evaluation of each COMS according to the requirements in 40 CFR 63.8 and according to PS 1 of 40 CFR Part 60, Appendix B. **(40 CFR 63.11224(e)(2))**
 - c. As specified in 40 CFR 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. **(40 CFR 63.11224(e)(3))**
 - d. The COMS data must be reduced as specified in 40 CFR 63.8(g)(2). **(40 CFR 63.11224(e)(4))**
 - e. The permittee must include in the permittee's site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in 40 CFR 63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS. **(40 CFR 63.11224(e)(5))**
 - f. The permittee must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of 40 CFR 63.8(e). The permittee must identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit. **(40 CFR 63.11224(e)(6))**
 - g. The permittee must calculate and record 6-minute averages from the opacity monitoring data and determine and record the daily block average of recorded readings, except as provided in 40 CFR 63.11221(c), stated in SC VI.4. **(40 CFR 63.11224(e)(7))**
 - h. For purposes of collecting opacity data, the permittee must operate the COMS as specified in 40 CFR 63.11221(b), stated in SC VI.3. For purposes of calculating data averages, the permittee must use all the data collected during all periods in assessing compliance, except that the permittee must exclude certain data as specified in 40 CFR 63.11221(c), stated in SC VI.4. Periods when COMS data are unavailable may constitute monitoring deviations as specified in 40 CFR 63.11221(d), stated in SC VI.5. **(40 CFR 63.11224(e)(8))**
12. The permittee must maintain the records specified in paragraphs (c)(1) through (7) of 40 CFR 63.11225, as listed below. **(40 CFR 63.11225(c))**
- a. As required in 40 CFR 63.10(b)(2)(xiv), the permittee must keep a copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted. **(40 CFR 63.11225(c)(1))**
 - b. The permittee must keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR 63.11214 and 63.11223 as specified in paragraphs (c)(2)(ii) and (iv) of 40 CFR 63.11225, as listed below. **(40 CFR 63.11225(c)(2))**
 - i. For each boiler required to conduct an energy assessment, the permittee must keep a copy of the energy assessment report. **(40 CFR 63.11225(c)(2)(iii))**
 - ii. For each boiler subject to an emission limit in Table 1 of 40 CFR Part 63, Subpart JJJJJJ, the permittee must also keep records of monthly fuel use by each boiler, including the type(s) of fuel and amount(s) used. **(40 CFR 63.11225(c)(2)(iv))**
 - c. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation that were done to demonstrate compliance with the mercury emission limits. Supporting documentation should include results of any fuel analyses. The permittee can use the results from one fuel analysis for multiple boilers provided they are all burning the same fuel type. **(40 CFR 63.11225(c)(3))**
 - d. Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment. **(40 CFR 63.11225(c)(4))**
 - e. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR 63.11205(a) including corrective actions to restore the malfunctioning

boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation. **(40 CFR 63.11225(c)(5))**

- f. The permittee must keep the records of all inspection and monitoring data required by 40 CFR 63.11221 and 63.11222, and the information identified in paragraphs (c)(6)(i) through (vi) of 40 CFR 63.11225, as listed below, for each required inspection or monitoring. **(40 CFR 63.11225(c)(6))**
 - i. The date, place, and time of the monitoring event. **(40 CFR 63.11225(c)(6)(i))**
 - ii. Person conducting the monitoring. **(40 CFR 63.11225(c)(6)(ii))**
 - iii. Technique or method used. **(40 CFR 63.11225(c)(6)(iii))**
 - iv. Operating conditions during the activity. **(40 CFR 63.11225(c)(6)(iv))**
 - v. Results, including the date, time, and duration of the period from the time the monitoring indicated a problem to the time that monitoring indicated proper operation. **(40 CFR 63.11225(c)(6)(v))**
 - vi. Maintenance or corrective action taken (if applicable). **(40 CFR 63.11225(c)(6)(vi))**

- 13. The permittee's records must be in a form suitable and readily available for expeditious review. The permittee must keep each record for 5 years following the date of each recorded action. The permittee must keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. The permittee may keep the records off site for the remaining 3 years. **(40 CFR 63.11225(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. The permittee must submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed according to Table 2 to 40 CFR Part 63, Subpart JJJJJJ and is an accurate depiction of the permittee's facility. **(40 CFR 63.11214(c))**
- 5. The permittee must report each instance in which the permittee did not meet each emission limit and operating limit in Tables 1 and 3 of 40 CFR Part 63, Subpart JJJJJJ that apply to the permittee. These instances are deviations from the emission limits in 40 CFR Part 63, Subpart JJJJJJ. These deviations must be reported according to the requirements in 40 CFR 63.11225. **(40 CFR 63.11222(b))**
- 6. The permittee must submit the notifications specified in paragraphs (a)(1) through (5) of 40 CFR 63.11225, as listed below, to the administrator. **(40 CFR 63.11225(a))**
 - a. The permittee must submit all of the notifications in 40 CFR 63.7(b); 63.8(e) and (f); and 63.9(b) through (e), (g), and (h) that apply to the permittee by the dates specified in those Sections except as specified in paragraphs (a)(2) and (4) of 40 CFR 63.11225. **(40 CFR 63.11225(a)(1))**
 - b. An Initial Notification must be submitted no later than January 20, 2014 or within 120 days after the source becomes subject to the standard. **(40 CFR 63.11225(a)(2))**
 - c. If the permittee is required to conduct a performance stack test the permittee must submit a Notification of Intent to conduct a performance test at least 60 days before the performance stack test is scheduled to begin. **(40 CFR 63.11225(a)(3))**
 - d. The permittee must submit the Notification of Compliance Status no later than 120 days after the applicable compliance date specified in 40 CFR 63.11196, stated in SC IX.4 or SC IX.5, unless the permittee must conduct a performance stack test. If the permittee must conduct a performance stack test, the permittee must submit the Notification of Compliance Status within 60 days of completing the performance stack test. The permittee must submit the Notification of Compliance Status in accordance with paragraphs (a)(4)(i) and

- (vi) of 40 CFR 63.11225, as listed below. The Notification of Compliance Status must include the information and certification(s) of compliance in paragraphs (a)(4)(i) through (v) of 40 CFR 63.11225, as applicable, and signed by a responsible official. **(40 CFR 63.11225(a)(4))**
- i. The permittee must submit the information required in 40 CFR 63.9(h)(2), except the information listed in 40 CFR 63.9(h)(2)(i)(B), (D), (E), and (F). If the permittee conducts any performance tests or CMS performance evaluations, the permittee must submit that data as specified in paragraph (e) of 40 CFR 63.11225, stated in SC VII.7 and SC VII.8. If the permittee conducts any opacity or visible emission observations, or other monitoring procedures or methods, the permittee must submit that data to the Administrator at the appropriate address listed in 40 CFR 63.13. **(40 CFR 63.11225(a)(4)(i))**
 - ii. "This facility has had an energy assessment performed according to 40 CFR 63.11214(c)." **(40 CFR 63.11225(a)(4)(iii))**
 - iii. For units that install bag leak detection systems: "This facility complies with the requirements in 40 CFR 63.11224(f)." **(40 CFR 63.11225(a)(4)(iv))**
 - iv. For units that do not qualify for a statutory exemption as provided in 40 CFR 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit." **(40 CFR 63.11225(a)(4)(v))**
 - v. The notification must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through USEPA's Central Data Exchange (CDX) <https://cdx.epa.gov/>. However, if the reporting form specific to 40 CFR Part 63, Subpart JJJJJJ is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in 40 CFR 63.13. **(40 CFR 63.11225(a)(4)(vi))**
- e. If the permittee is using data from a previously conducted emission test to serve as documentation of conformance with the emission standards and operating limits of 40 CFR Part 63, Subpart JJJJJJ, the permittee must include in the Notification of Compliance Status the date of the test and a summary of the results, not a complete test report, relative to 40 CFR Part 63, Subpart JJJJJJ. **(40 CFR 63.11225(a)(5))**
7. The permittee must prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the information specified in paragraphs (b)(1) through (4) of 40 CFR 63.11225, as listed below. The permittee must submit the report by March 15 if the permittee had any instance described by paragraph (b)(3) of 40 CFR 63.11225. **(40 CFR 63.11225(b))**
- a. Company name and address. **(40 CFR 63.11225(b)(1))**
 - b. Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of 40 CFR Part 63, Subpart JJJJJJ. The permittee's notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official: **(40 CFR 63.11225(b)(2))**
 - i. For units that do not qualify for a statutory exemption as provided in 40 CFR 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit." **(40 CFR 63.11225(b)(2)(ii))**
 - ii. "This facility complies with the requirement in 40 CFR 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available." **(40 CFR 63.11225(b)(2)(iii))**
 - c. If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken. **(40 CFR 63.11225(b)(3))**
 - d. The total fuel use by each affected boiler subject to an emission limit, for each calendar month within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by the permittee or USEPA through a petition process to be a non-waste under 40 CFR 241.3(c), whether the fuel(s) were processed from discarded non-hazardous secondary materials within the meaning of 40 CFR 241.3, and the total fuel usage amount with units of measure. **(40 CFR 63.11225(b)(4))**

8. Within 60 days after the date of completing each performance test (defined in 40 CFR 63.2) as required by 40 CFR Part 63, Subpart JJJJJJ the permittee must submit the results of the performance tests, including any associated fuel analyses, required by 40 CFR Part 63, Subpart JJJJJJ to USEPA's WebFIRE database by using CEDRI that is accessed through USEPA's CDX <https://cdx.epa.gov/>. Performance test data must be submitted in the file format generated through use of USEPA's Electronic Reporting Tool (ERT) (see <https://www3.epa.gov/ttn/chief/ert/index.html>). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to USEPA. The electronic media must be clearly marked as CBI and mailed to USEPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to USEPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, the permittee must also submit these reports, including CBI, to the delegated authority in the format specified by the delegated authority. For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator shall submit the results of the performance test in paper submissions to the Administrator at the appropriate address listed in 40 CFR 63.13. **(40 CFR 63.11225(e)(1))**

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
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. At all times the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that 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 63.11205(a))**
2. Table 8 of 40 CFR Part 63, Subpart JJJJJJ shows which parts of the General Provisions in Sections 63.1 through 63.15 apply to the permittee. **(40 CFR 63.11235)**
3. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. **(40 CFR Part 63, Subparts A and JJJJJJ)**

Footnotes:

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

**FGJJJJJJ-EU15
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Conditions for existing oil-fired industrial, commercial or institutional limited-use boiler as defined in 40 CFR 63.11237 that is located at, or is part of, an area source of hazardous air pollutants (HAP), as defined in 40 CFR 63.2, except as specified in 40 CFR 63.11195.

Emission Unit: EU15

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

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

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must comply with each work practice standard, emission reduction measure, and management practice specified in Table 2 of 40 CFR Part 63, Subpart JJJJJJ that applies to the permittee’s boiler. **(40 CFR 63.11201(b))**
2. The permittee must conduct a performance tune-up according to 40 CFR 63.11223(b), stated in SC III.4, and the permittee must submit a signed statement in the Notification of Compliance Status report that indicates that the permittee conducted a tune-up of the boiler. **(40 CFR 63.11214(b))**
3. For affected sources subject to the work practice standard or the management practices of a tune-up, the permittee must conduct a performance tune-up according to paragraph (b) of 40 CFR 63.11223, stated in SC III.4, and keep records as required in 40 CFR 63.11225(c), stated in SC VI.1, to demonstrate continuous compliance. The permittee must conduct the tune-up while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. **(40 CFR 63.11223(a))**
4. Except as specified in paragraph (f) of 40 CFR 63.11223, stated in SC III.5, the permittee must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in paragraphs (b)(1) through (7) of 40 CFR 63.11223, as listed below. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. **(40 CFR 63.11223(b))**
 - a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. **(40 CFR 63.11223(b)(1))**

- b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.11223(b)(2))**
 - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. **(40 CFR 63.11223(b)(3))**
 - d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject. **(40 CFR 63.11223(b)(4))**
 - e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.11223(b)(5))**
 - f. Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (b)(6)(i) through (iii) of 40 CFR 63.11223, as listed below. **(40 CFR 63.11223(b)(6))**
 - i. The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler. **(40 CFR 63.11223(b)(6)(i))**
 - ii. A description of any corrective actions taken as a part of the tune-up of the boiler. **(40 CFR 63.11223(b)(6)(ii))**
 - iii. The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. **(40 CFR 63.11223(b)(6)(iii))**
 - g. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup. **(40 CFR 63.11223(b)(7))**
5. Limited-use boilers must conduct a tune-up every 5 years as specified in paragraphs (b)(1) through (7) of 40 CFR 63.11223, stated in SC III.4. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. The permittee may delay the burner inspection specified in paragraph (b)(1) of 40 CFR 63.11223 and inspection of the system controlling the air-to-fuel ratio specified in paragraph (b)(3) of 40 CFR 63.11223 until the next scheduled unit shutdown, but the permittee must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months. Limited-use boilers are not subject to the emission limits in Table 1 of 40 CFR Part 63, Subpart JJJJJJ the energy assessment requirements in Table 2 of 40 CFR Part 63, Subpart JJJJJJ, or the operating limits in Table 3 of 40 CFR Part 63, Subpart JJJJJJ. **(40 CFR 63.11223(f))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

- 1. The boiler shall comply with the definition of limited-use boiler: the boiler that burns any amount of solid or liquid fuels and has a federally enforceable average annual capacity factor of no more than 10 percent. **(40 CFR 63.11200(g))**

V. TESTING/SAMPLING

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

NA

See Appendix 5

VI. MONITORING/RECORDKEEPING

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

1. The permittee must maintain the records specified in paragraphs (c)(1) through (7) of 40 CFR 63.11225, as listed below. **(40 CFR 63.11225(c))**
 - a. As required in 40 CFR 63.10(b)(2)(xiv), the permittee must keep a copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted. **(40 CFR 63.11225(c)(1))**
 - b. The permittee must keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR 63.11214 and 63.11223 as specified in paragraphs (c)(2)(i) through (vi) of 40 CFR 63.11225, as listed below. **(40 CFR 63.11225(c)(2))**
 - i. Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned. **(40 CFR 63.11225(c)(2)(i))**
 - ii. The permittee must keep records of monthly fuel use, including the type(s) of fuel and amounts(s) used. **(40 CFR 63.11225(c)(2)(iv))**
 - iii. For each boiler that meets the definition of limited-use boiler, the permittee must keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent and records of fuel use for the days the boiler is operating. **(40 CFR 63.11225(c)(2)(vi))**
 - c. Records of the occurrence and duration of each malfunction of the boiler. **(40 CFR 63.11225(c)(4))**
 - d. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR 63.11205(a), stated in SC IX.4, including corrective actions to restore the malfunctioning boiler to its normal or usual manner of operation. **(40 CFR 63.11225(c)(5))**
2. The permittee's records must be in a form suitable and readily available for expeditious review. The permittee must keep each record for 5 years following the date of each recorded action. The permittee must keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. The permittee may keep the records off site for the remaining 3 years. **(40 CFR 63.11225(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. The permittee must submit the notifications specified in paragraphs (a)(1) through (5) of 40 CFR 63.11225, as listed below, to the administrator. **(40 CFR 63.11225(a))**
 - a. The permittee must submit all of the notifications in 40 CFR 63.7(b); 63.8(e) and (f); and 63.9(b) through (e), (g), and (h) that apply to the permittee by the dates specified in those 40 CFR except as specified in paragraphs (a)(2) and (4) of 40 CFR 63.11225. **(40 CFR 63.11225(a)(1))**
 - b. An Initial Notification must be submitted no later than January 20, 2014 or within 120 days after the source becomes subject to the standard. **(40 CFR 63.11225(a)(2))**
 - c. The permittee must submit the Notification of Compliance Status no later than 120 days after the applicable compliance date specified in 40 CFR 63.11196, stated in SC IX.3. The permittee must submit the Notification of Compliance Status in accordance with paragraphs (a)(4)(i) and (vi) of 40 CFR 63.11225, as listed below. The Notification of Compliance Status must include the information and certification(s) of compliance in paragraphs (a)(4)(i) through (v) of 40 CFR 63.11225, as applicable, and signed by a responsible official. **(40 CFR 63.11225(a)(4))**
 - i. The permittee must submit the information required in 40 CFR 63.9(h)(2), except the information listed in 40 CFR 63.9(h)(2)(i)(B), (D), (E), and (F). **(40 CFR 63.11225(a)(4)(i))**

- ii. “This facility complies with the requirements in 40 CFR 63.11214 to conduct an initial tune-up of the boiler.” **(40 CFR 63.11225(a)(4)(ii))**
- iii. For units that do not qualify for a statutory exemption as provided in 40 CFR 129(g)(1) of the Clean Air Act: “No secondary materials that are solid waste were combusted in any affected unit.” **(40 CFR 63.11225(a)(4)(v))**
- iv. The notification must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through USEPA’s Central Data Exchange (CDX) <https://cdx.epa.gov/>. However, if the reporting form specific to 40 CFR Part 63, Subpart JJJJJJ is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in 40 CFR 63.13. **(40 CFR 63.11225(a)(4)(vi))**

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
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

- 1. At all times the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that 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 63.11205(a))**
- 2. Table 8 of 40 CFR Part 63, Subpart JJJJJJ shows which parts of the General Provisions in 40 CFRs 63.1 through 63.15 apply to the permittee. **(40 CFR 63.11235)**
- 3. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. **(40 CFR Part 63, Subparts A and JJJJJJ)**

Footnotes:

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

E. NON-APPLICABLE REQUIREMENTS

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

APPENDICES

Appendix 1. 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 ₂ 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
EGLE	Michigan Department of Environment, Great Lakes, and Energy	HAP	Hazardous Air Pollutant
EU	Emission Unit	Hg	Mercury
FG	Flexible Group	hr	Hour
GACS	Gallons of Applied Coating Solids	HP	Horsepower
GC	General Condition	H ₂ S	Hydrogen Sulfide
GHGs	Greenhouse Gases	kW	Kilowatt
HVLP	High Volume Low Pressure*	lb	Pound
ID	Identification	m	Meter
IRSL	Initial Risk Screening Level	mg	Milligram
ITSL	Initial Threshold Screening Level	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	NMOC	Non-methane Organic Compounds
MAP	Malfunction Abatement Plan	NO _x	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 ₂	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

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

Appendix 4. Recordkeeping

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in EU05, and EU15. Alternative formats must be approved by the AQD District Supervisor.

1. EU05 - Coal Shipments Received:

- a. For each coal shipment received, the permittee shall record the date received, source of coal and shipper, tons received, and a laboratory analysis of ash content, sulfur content, and moisture content to demonstrate compliance with the 1.5% sulfur content limitation. The determination of sulfur content (percent by weight) of fuel shall be carried out in accordance with a procedure acceptable to the Air Quality Division. The records of ash content and sulfur content shall specify whether they were measured on a dry basis or "as received."
- b. At least once per calendar year, the permittee shall have a coal analysis performed of the ash content, sulfur content, and moisture content. This analysis shall be independent of the analysis received from the coal supplier with each coal delivery. The determination of sulfur content (percent by weight) of fuel shall be carried out in accordance with ASTM Method 3177-75 or Method 4239-85 or a procedure acceptable to the District Supervisor.

2. EU05 - Boiler Inspection and Maintenance Program:

The permittee shall carry out an Inspection and Maintenance Program for EU05, the associated Bag House dust collection system, Opacity Meter, Ash Handling and Coal Handling and Storage equipment. The program shall include keeping a Daily Log which details equipment problems found, repairs done and/or corrective action taken and a Preventative Maintenance Log of scheduled and completed maintenance on the equipment listed above.

3. EU15 - Fuel Oil Analysis:

For each fuel oil shipment received, the permittee shall obtain from the fuel oil supplier a laboratory analysis of the sulfur content. The determination of sulfur content (percent by weight) shall be carried out in accordance with any of the following procedures: ASTM Method D129-64 or ASTM Method 1552-83 or ASTM Method 2622-87 or ASTM Method 1266-87, or an alternative method approved by the AQD District Supervisor. For each fuel oil shipment received, the permittee shall also record the date received, source of fuel oil and supplier, and gallons received. These records shall be retained by the permittee for a minimum of five years and made available to the Air Quality Division upon request.

4. FGSATURATORS&COATERS & FGPM1COATER-Coating Records:

- a. FGSATURATORS&COATERS: The permittee shall keep monthly records for the latex used at all coaters and saturators on a facility wide basis. The records will represent the volume throughput on either a wet pound or total gallon basis. The VOC content of each coating or saturant (minus water) shall be less than 2.9 lbs. per gallon as applied for #1 Paper Machine Saturator, #2 Paper Machine Saturator, #15 Saturator, #18 Saturator, #6 Coater, #17 Coater and #19 Coater.

- b. FGPM1COATER: The permittee shall be able to demonstrate that the VOC content of as applied coatings on the #1 Paper Machine Coater are at levels equal to or less than 12.0 lbs per hour and at less than 7.8 tons per year.

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 ROP amendments or modifications were issued after the effective date of ROP No. MI-ROP-B1470-2013. 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-B1470-2013a is being reissued as Source-Wide PTI No. MI-PTI-B1407-20XX.

Permit to Install Number	ROP Revision Application Number/Issuance Date	Description of Change	Corresponding Emission Unit(s) or Flexible Group(s)
24-15	201600016 / April 6, 2016	Incorporate PTI 24-15 to install a spray dry absorbent (SDA) system to control hazardous air pollutants (HAPs) (hydrogen chloride emissions) and qualify as an area source of HAPs. The SDA was installed and began operating prior to January 31, 2016.	EU05 and FGFACILITY

The following table lists the ROP amendments or modifications issued after the effective date of ROP No. MI-ROPB1470-2019.

Permit to Install Number	ROP Revision Application Number/Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
108-16A	201900079 / September 26, 2019	The Administrative Amendment was to incorporate PTI 108-16A into the ROP. The PTI went through a Public Comment Period from February 27, 2019 until March 29, 2019. The PTI was to increase the emission limits for HAPs for the existing paper mill. Additionally, the PTI removed some permitted Conditions, and made the Flexible Group and Emission Unit names consistent throughout the ROP. The two emission limits that were removed were associated with the facility since 1989 and requesting to have them removed was not due to difficulties in meeting the limits but rather the burden of it due to the configuration of the equipment. The PTI did not go through New Source Review at this time, since the main change was to increase the HAP opt-out limits.	EU05 FGPM1COATER SOURCE-WIDE

Appendix 7. Emission Calculations

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

The permittee shall use the following calculations in conjunction with monitoring, testing or record keeping data to determine compliance with the applicable requirements referenced in the Source-Wide Conditions for EU05. The example is for hydrogen chloride (HCl) and the tested emission factor is in lb/MMBtu.

$$HCl \text{ Emissions} = \text{Coal Burned (Tons)} * \text{Heat Input} \left(\frac{MMBtu}{ton} \right) * \text{Emission Factor} \left(\frac{lb}{MMBtu} \right)$$

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FGPM1COATER and FGSATURATORS&COATERS.

1. FGPM1COATER: VOC emissions in pounds/hour = Coating or saturant flow in gallons/hour X VOC content in pounds/gallon minus water.
2. FGPM1COATER: VOC emissions in tons/year = VOC emissions in pounds/hour X hours of operation divided by 2000 pounds per ton minus water.
3. FGSATURATORS&COATERS: VOC concentration in pounds/gallon = Coating or Saturant Manufacturer's Formulation Data concentration in pounds of VOC/gallon minus water.
4. FGPM1COATER: ACRYLONITRILE emission in milligrams/meter³ = Coating Manufacturer's Formulation Data for acrylonitrile concentration in mg/kilogram of coating times the kilograms of coating/hr divided by the meters³ of air/hr.
5. FGPM1COATER: FORMALDEHYDE emissions in milligrams/meter³ = Coating Manufacturer's Formulation Data for formaldehyde concentration in mg/kilogram of coating times the kilograms of coating/hr divided by the meters³ of air/hr.
6. EU05: The permittee shall use the following calculation in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in EU05. Alternative calculations must be approved by the AQD District Supervisor.

$$\text{Annual emissions from use of SDA (tons)} = \text{(Annual coal use, tons)} * \text{(Heating value of coal, btu/ton)} * \text{(Emission factor, lb/mmbtu)}$$

$$\text{Annual emissions – uncontrolled (tons)} = \text{(Annual coal use, tons)} * \text{(Heating value of coal, btu/ton)} * \text{(Uncontrolled emission factor, lb/mmbtu)}$$

The permittee shall use emission factors derived from stack testing performed on EU05 or based on Cl content of the coal. If other emission factors are used, the permittee shall obtain approval from the AQD District Supervisor before using the emission factors to calculate emissions. The permittee shall use emission factors contained in the most recent AP-42 (Compilation of Air Pollutant Emission Factors) or the most recent FIRE (Factor Information Retrieval) database associated with a coal-fired boiler if vendor or stack testing data is not available.

7. EU15: The permittee shall use the following calculation in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in EU15. Alternative calculations must be approved by the AQD District Supervisor.

Values for percent sulfur and for heat value of fuel oil, which are obtained from analytical data, can be used in the following equation to determine % sulfur on the basis of 18,000 Btu per pound of fuel oil:

$$S = \left(\frac{S_{oil}}{1} \right) * \left(\frac{18,000 \text{ Btu}}{H_{oil}} \right)$$

Where:

S = % sulfur on the basis of 18,000 Btu per pound of fuel oil

H_{oil} = actual Heat Value of the fuel oil in Btu per pound of fuel oil

S_{oil} = actual percent Sulfur in the fuel oil

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 40 CFR 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.



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: B1470

Section Number (if applicable):

1. Additional Information ID

AI-CAM

Additional Information

2. Is This Information Confidential?

Yes No

Neenah Paper Michigan, Inc. has an existing Compliance Assurance Monitoring (CAM) Plan for the Boiler 1 (EU05) Spray Dry Absorber and Baghouse Dust Collector. This plan was updated in December 6, 2019 and is attached in the ROP Renewal Application Package.

Compliance Assurance Monitoring Plan
Boiler 1 (EU05)
Spray Dry Absorber and Baghouse Dust Collector

Neenah Paper, Inc.
Munising, Michigan

Version 6

December 6, 2019

**Compliance Assurance Monitoring Plan
Boiler 1 (EU05)
Spray Dry Absorber and Baghouse Dust Collector**

**Prepared for:
Neenah Paper Michigan, Inc
Munising, Michigan**

December 6, 2019

Version 6

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List of Abbreviations/Acronyms

AQD	Air Quality Division of the MDEQ	NaCl	sodium chloride
Btu	British thermal unit	NaOH	sodium hydroxide
COMS	continuous opacity monitoring system	O&M	Operations and Maintenance
°F	degrees Fahrenheit	PM	particulate matter
EU	emission unit	QIP	Quality Improvement Plan
HAP	hazardous air pollutant	ROP	Title V Renewable Operating Permit
HCl	hydrochloric acid	SDA	Spray Dry Absorber
MDEQ	Michigan Department of Environmental Quality	tpy	tons per year
MMBtu/hr	million Btus per hour		

Part 1 – HCl Emissions Monitoring Plan (SDA Control)

I. Background

A. Emissions Unit

Description: Babcock & Wilcox Coal-Fired Spreader Stoker Boiler
Identification: Boiler 1 (EU05)
Facility: Neenah Paper Michigan, Inc – Munising, Michigan

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Permit No.: ROP No. MI-ROP-B1470-2019

Emission Limits:

Individual HAPs (Primarily HCl) 9.5 tpy, 12-month rolling time period as determined at the end of each calendar month
Aggregate HAPs (Primarily HCl) 23.5 tpy, 12-month rolling time period as determined at the end of each calendar month
Monitoring and Record Keeping Requirements: Calculate the monthly quantity of HCl emitted using emission factors based on stack testing
Record the individual and aggregate HAP emissions monthly and on a 12-month rolling time period

C. Control Technology

Spray Dry Absorber (SDA).

II. Monitoring Approach

The key elements of the monitoring approach are presented below:

A. Indicator for Meeting Emission Limit

SDA Outlet Temperature and Reagent Specific Gravity.

Measurement Approach

The SDA Outlet Temperature and Reagent Specific Gravity will be monitored continuously and a representative reading (not start-up, shutdown, etc.) will be recorded once per day. Emissions limits are on an annual basis – 12-month rolling totals are calculated to demonstrate compliance with annual emission limits.

B. Indicator Range

SDA Outlet Temperature: The SDA Outlet Temperature will be maintained above 220°F during normal operation, except during start-up and shutdown to reduce HCl emissions while firing coal. Typical SDA Outlet Temperature is between 265°F and 290°F.
Reagent Specific Gravity: The Reagent Specific Gravity will be maintained above 1.010 during normal operation, except during start-up and shutdown, to reduce HCl emissions while firing coal. Typical operation is between 1.020 and 1.067.

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Consult with the Neenah Munising Mill Environmental Engineer before acting.

C. Quality Improvement Plan Threshold

A QIP will be developed upon request of the MDEQ-AQD if an excessive number of excursions have been reported. An excursion is defined as a daily SDA Outlet Temperature below 220°F or a daily Reagent Specific Gravity below 1.010 while firing coal. The boiler starts up on natural gas and switches to coal when load reaches 35%.

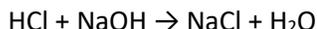
D. Performance Criteria

Monitoring Data Representativeness:	The SDA Outlet Temperature, Reagent Specific Gravity, and Reagent Flow act as SDA performance indicators. <ul style="list-style-type: none">If the specific gravity is lower than 1.010 the sodium hydroxide content of the reagent is too low and HAP control has dropped below 80%.If the SDA Outlet Temperature drops below 220°F has deviated, water may condense within the equipment which will eventually affect control equipment performance.
Verification of Monitoring Operational Status:	<ul style="list-style-type: none">Data is not recorded during non-operation of monitoring equipment. All required system monitoring equipment will be maintained and calibrated per the manufacturer's recommendations. Calibration records will be maintained for future reference. The measuring devices will be installed, calibrated, maintained, and operated in accordance with manufacturer's recommendations.
QA/QC Practices and Criteria:	At least once per 12-months, the internal condition of the SDA system will be evaluated, and required repairs made to the spray nozzles, inlet and outlet ducts, the pumping system, suction pipe, and pumping system valves. After corrective action has been taken, proper operation of the measuring devices will be verified. Monitoring data will be recorded continuously and recorded once per day.
Monitoring Frequency and Collection Procedure:	

III. Justification

A. Indicator for Meeting Emission Limit

The SDA is a caustic system containing a co-current reaction tower between the boiler and the baghouse. Incoming hot flue gas is sprayed with a diluted solution of water and NaOH using dual atomizing nozzles. Atomizing nozzles produce a fine mist of droplets; the contact between the fine mist and air results in adiabatic cooling of the hot flue gas. The chemical reaction that occurs between caustic and gaseous components results in removal of pollutants. The NaOH reacts with HCl in the exhaust gases to produce NaCl, which is a solid at the exhaust gas temperature of EU05, and is subsequently captured in the baghouse as a dry, filterable PM. The chemical reaction between HCl and caustic is:



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B. Rationale for Selection of Performance Indicator

The SDA Outlet Temperature and Reagent Specific Gravity were selected as performance indicators because they are indicative of operation of the SDA system in a manner necessary to remove HCl as intended and to comply with the HAP emission limit. When the SDA system is operating properly, the Reagent Specific Gravity will not be below 1.010 and the SDA Outlet Temperature will not be below 220°F. Parameter values outside of the specified ranges will indicate a malfunctioning control device as described as follows.

The caustic solution application rate is held constant, therefore specific gravity is varied to ensure the appropriate amount of absorbent is applied to neutralize the HCl in the flue gas. Reagent Specific Gravity is a direct indication of the concentration, therefore, the greater the specific gravity, the greater the NaOH concentration in the absorbent. For a malfunction in which the Reagent Specific Gravity is below 1.010, there will not be enough base present to neutralize the HCl in the flue gas, which will result in elevated HCl emissions. It should be noted that the HCl emission limit is a 12-month rolling total, so even operation for extended periods of time at a Reagent Specific Gravity below 1.010 will not likely lead to excessive emissions. In addition, Neenah can account for operating hours when the SDA is not operating properly by estimating hourly or daily emissions as *uncontrolled* while firing coal.

The absorption process requires intimate contact between the sorbent and flue gas. This is accomplished as the hot exhaust gases travel through the SDA. When the SDA Outlet Temperature drops below 220°F, water can condense within the exhaust system and will compromise the control system integrity. The temperature of the flue gas must also be above the adiabatic saturation temperature of the flue gas so the water can evaporate. Water present in the system will react with acid gases to cause condensation of the acid gases in the exhaust system.

C. Rationale for Selection of Indicator Level

The performance indicators were selected because they are within the ranges demonstrated through stack testing and recommended by the manufacturer. When excursions outside the selected indicator ranges occur, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented.

Part 2 – Particulate CAM

I. Background

A. Emissions Unit

Description: Babcock & Wilcox Coal-Fired Spreader Stoker Boiler
Identification: Boiler 1 (EU05)
Facility: Neenah Paper Michigan, Inc – Munising, Michigan

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Permit No.: ROP No. MI-ROP-B1470-2019

Emission Limits:

Particulate: 0.30 pounds per 1,000 pounds of exhaust gas, corrected to 50% excess air

Visible Emissions: Maintain 6-minute average of less than (or equal to) 20% opacity, except up to one 6-minute average of more than 20% opacity but less than (or equal to) 27% opacity is allowed per hour. EU05 is also limited to 10% opacity as a daily block average.

Monitoring and Record Keeping Requirements: A calibrated COMS must be in operation whenever the boiler is in operation.

C. Control Technology

Baghouse Dust Collector.

II. Monitoring Approach

The key elements of the monitoring approach are presented below:

A. Indicator for Meeting Emission Limit

Opacity monitor readings.

B. Measurement Approach

- Visible emissions will be measured continuously using an opacity monitor (COMS). The opacity readings will be rolled up and recorded as 6-minute averages.

C. Indicator Range

Opacity: The visible emissions acceptable range will be 0% to 20% opacity.

D. Quality Improvement Plan Threshold

A QIP will be developed upon request of the MDEQ-AQD if an excessive number of excursions have been reported. An excursion is defined as two continuous hours over 20% opacity as measured by the COMS.

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Consult with the Neenah Munising Mill Environmental Engineer before acting.

E. Performance Criteria

Monitoring Data Representativeness:	Opacity readings indicate performance of the baghouse dust collector. A properly operating baghouse will provide good control of particulate emissions. <ul style="list-style-type: none">• High opacity indicates particulate emissions are increased
Verification of Monitoring Operational Status:	Data is not recorded during non-operation of monitoring equipment. <ul style="list-style-type: none">• The COMS will be maintained in good working condition per the manufacturer's O&M procedures required by Appendix B of 40 CFR Part 60.• The pressure drop gauges (magnehelic gauges) will be maintained per the manufacturer's O&M procedures.
QA/QC Practices and Criteria:	<ul style="list-style-type: none">• The COMS is calibrated daily; the monitor is manually calibrated on a quarterly basis with certified <i>high, medium, and low</i> opacity filters. Annual audits will also be performed as required by the MDEQ.• The pressure drop gauges will be calibrated as suggested by the manufacturer.• After corrective action is taken, the affected monitor• will be tracked to verify that the corrective action was effective.
Monitoring Frequency and Collection Procedure:	Monitoring data will be measured continuously. Excessive opacity triggers an alarm and corrective actions will be documented.

III. Justification

A. Background

The boiler is a Babcock and Wilcox spreader stoker that burns bituminous coal with a sulfur content less than 1.5% (normalized to 12,000 Btu/lb). The boiler is rated at 202 MMBtu/hour heat input.

Particulates are controlled by a five-module baghouse dust collector

B. Rationale for Selection of Performance Indicator

Opacity is a recognized indicator of particulate emissions; opacity and particulate emissions are directly related. Excessive opacity will indicate a malfunctioning control device.

C. Rationale for Selection of Indicator Level

Opacity was selected because it is an instantaneous indicator of baghouse dust collector performance. When high opacity is detected, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented.



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: B1470

Section Number (if applicable):

1. Additional Information ID

AI-MAP

Additional Information

2. Is This Information Confidential?

Yes No

Neenah Paper Michigan, Inc. has an existing Preventive Maintenance and Startup/Shutdown/Malfunction Plan (MAP) for the Boiler 1 (EU05) Baghouse Dust Collector and Spray Dryer Absorber. This plan was updated on December 6, 2019 and is attached in the ROP Renewal Application Package.

Preventive Maintenance and
Startup/Shutdown/Malfunction Plan
EU05 (Boiler 1)
Baghouse Dust Collector and Spray Dryer Absorber

Neenah Paper, Inc. Munising, Michigan

Version 7

December 6, 2019

**Preventive Maintenance and
Startup/Shutdown/Malfunction Plan
EU05 (Boiler 1)
Baghouse Dust Collector and Spray Dryer Absorber**

**Neenah Paper Michigan, Inc.
Munising, Michigan**

December 6, 2019

VERSION 7

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List of Abbreviations/Acronyms

Btu	British thermal unit
Btu/hr	Btus per hour
CAM	compliance assurance monitoring (as required by 40 CFR 64)
CFR	Code of Federal Regulations
COMS	continuous opacity monitoring system
°F	degrees Fahrenheit
EU	emission unit
EU05	Boiler 1, a coal- and natural gas-fired 202 MMBtu/hr heat input boiler
HAP	hazardous air pollutant(s)
HCl	hydrochloric acid (a HAP)
I&M	inspection and maintenance
IB GACT	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Area Source Boilers
Neenah	Neenah Paper Michigan, Inc.
lb	pound(s)
MDEQ	Michigan Department of Environmental Quality
MMBtu/hr	million British thermal units per hour
NaOH	sodium hydroxide or caustic
O ₂	oxygen
PM	particulate matter
PM _{2.5}	fine particulate matter less than 2.5 microns
PM ₁₀	fine particulate matter less than 10 microns
ppm	parts per million
PTI	Permit to Install 24-15
ROP	Renewable Operating Permit MI-ROP-B1470-2013a
SDA	spray dryer absorber
SO ₂	sulfur dioxide
TAC	toxic air contaminant
VE	visible emissions

1.0 Introduction

This Preventive Maintenance and Malfunction Abatement Plan (MAP) has been prepared for Neenah Paper Michigan, Inc. to comply with Sections III.2 and IV.2 of PTI 108-16A (for EU05) and with Michigan Air Pollution Control Rules R 336.1910 (Rule 910) and R 336.1911 (Rule 911). The purpose of this Preventive Maintenance and Malfunction Abatement Plan is to describe actions that will be taken to minimize the frequency and extent of any malfunction event(s), and how Neenah will manage any malfunction of equipment related to EU05 and its air pollution control technology (baghouse dust collector and Spray Dry Absorber [SDA]). Figure 1 presents a flow diagram of the SDA and Appendix 1 contains a flow diagram of the baghouse dust collector.

Neenah currently implements a comprehensive Inspection and Maintenance (I&M) Program for EU05 and its associated baghouse and Spray Dry Absorber (SDA). Records of the maintenance and repairs performed for EU05, baghouse dust collector (baghouse), and SDA are kept in Neenah's Oracle tracking system.

Rule 910 states:

An air-cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with these rules and existing law.

Rule 911 states:

- (1) Upon request of the department, a person responsible for the operation of a source of an air contaminant shall prepare a malfunction abatement plan to prevent, detect, and correct malfunctions or equipment failures resulting in emissions exceeding any applicable emission limitation.*
- (2) A malfunction abatement plan required by subrule (1) of this rule shall be in writing and shall, at a minimum, specify all of 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.*
- (3) A malfunction abatement plan required by subrule (1) of this rule shall be submitted to the department and shall be subject to review and approval by the department. If, in the opinion of the commission, the plan does not adequately carry out the objectives as set forth in subrules (1) and (2) of this rule, then the department may disapprove the plan, state its reasons for disapproval, and order the preparation of an amended plan within the time period specified in the order. If, within the time period specified in the order, an amended plan is submitted which, in the opinion of the department, fails to meet the objective, then the department, on its own initiative, may amend the plan to cause it to meet the objective.*
- (4) Within 180 days after the department approves a malfunction abatement plan, a person responsible for the preparation of a malfunction abatement plan shall implement the malfunction abatement plan required by subrule (1) of this rule.*

2.0 Defining Malfunctions

Michigan Air Pollution Control Rule R 336.1113(a) (Rule 113(a)) defines a malfunction as:

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

A true malfunction must have a reasonable potential to cause:

- An operating parameter to stray from an acceptable range or value that has been established to indicate compliance with an emission limit or
- An exceedance in an established emission rate

The following emission limits apply to EU05:

Pollutant	Emissions Limit (with averaging time)	Underlying Applicable Requirement	Comments
Carbon monoxide	420 ppm (@ 3% O ₂)	IB GACT	Stack test
Particulate matter	0.03 lb/1,000 lb exhaust (adjusted to 50% excess air)	PTI/ROP Rule 331(a)	Stack test
Mercury	2.2 x 10 ⁻⁶	IB GACT	Compliance demonstrated through fuel monitoring
Sulfur dioxide	1.5% S in fuel by weight (adjusted to 12,000 Btu/lb)	Rule 401	Compliance demonstrated through fuel monitoring
Individual HAPs (most notably HCl)	9 tons/12 month rolling total	PTI/ROP – Rule 205(3)	Emission factors developed through stack testing, performance testing and manufacturer’s recommendations
Total HAPs	22.5 tons/12 month rolling total	PTI/ROP – Rule 205(3)	Emission factors developed through stack testing, performance testing and manufacturer’s recommendations
Visible Emissions	20%, 6-minute average with one 6-minute average of no more than 27% per hour/10% block daily average	Rule 301 and IB GACT	Continuous Opacity Monitoring System

Most malfunctions of the control equipment will not result in emissions exceedances. However, the systems must be returned to service as soon as possible in order to maintain maximum emission control. If a malfunction or failure occurs that cannot be corrected by an operator, then a Work Order will be issued to repair the system

Following is a list of malfunction events covered by this Plan.

- Failure of EU05 that results in emissions exceeding the allowed rate contained in Neenah’s PTI and ROP. With the air pollution control technology currently used for EU05, any malfunction of EU05 will be controlled by the baghouse. The only limit for EU05 contained in the PTI and ROP is PM and, to a lesser extent, HAP emissions (primarily HCl) as contained in FGFACILITY of the PTI. HCl is a byproduct of combusting coal that contains available chloride, as coal fuel use will be reduced or completely stopped during a malfunction of EU05, a malfunction of EU05 is not likely to result in any exceedance of HCl emissions.

- Failure of emission control system components, e.g. broken bags, monitoring equipment (such as equipment used for measuring the pressure drop across the baghouse filters) and data acquisition equipment to demonstrate compliance with emission limits.
- Sudden and unavoidable failure of EU05 and/or control equipment, not due to poor operation or maintenance.

3.0 Emission Control Devices

The PTI/ROP requires the at minimum the following information to be included in the Preventive Maintenance and Malfunction Abatement Plan:

- Operation and maintenance criteria for EU05, add-on control devices and for process and control device(s) monitoring equipment, and a standardized checklist to document the operation and maintenance of control equipment.
- Work practice standards for the add-on control device(s) and monitoring equipment.
- Procedures to be followed to ensure that the equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur.
- A systematic procedure for identifying process equipment, add-on control device(s) and monitoring equipment malfunctions and for implementing corrective actions to address such malfunctions.

The air pollution control devices for EU05 consist of the following:

- An SDA, which was installed to reduce emissions of HCl.
- A baghouse, which reduces emissions that consist of solid (or filterable) portions of PM (as well as filterable PM₁₀ and PM_{2.5}). The only pollutants with emission limits are PM and SO₂ (SO₂ is limited via a maximum sulfur content in coal fuel used in EU05). There are no emission limits for PM₁₀ and PM_{2.5}, although PM₁₀ is the regulated pollutant for CAM purposes.

Table 1 summarizes the control devices with targeted, and collaterally controlled, pollutants for EU05.

Table 1 – Control Devices Description

Control Equipment	Emissions Controlled
SDA	HCl (targeted pollutant)
	SO ₂ (collaterally controlled)
	Condensable PM (collaterally controlled)
Baghouse (Filterable Portions Only)	PM
	PM ₁₀ (collaterally controlled)
	PM _{2.5} (collaterally controlled)

3.1 Spray Dry Absorber

The **SDA** is a caustic system containing a co-current reaction tower between the boiler and the baghouse. Incoming hot flue gas is sprayed with a dilute solution of water and NaOH using dual atomizing nozzles. Atomizing nozzles produce a fine mist of droplets, the contact between the fine mist and air results in adiabatic cooling of the hot flue gas. The chemical reaction that occurs between caustic and gaseous components results in removal of pollutants. The NaOH reacts with HCl in the exhaust gases to produce sodium chloride, which is a solid at the exhaust gas temperature of EU05, and is subsequently captured in the baghouse as a dry, filterable PM. The chemical reaction between HCl and caustic is:

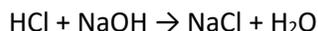


Figure 1 identifies a typical SDA control technology injection system as it would be applied to a boiler's exhaust gas system.

The SDA system includes caustic receiving tanks, caustic storage tanks, piping, injectors, tanks for combining concentrated caustic with water, pumps, and metering devices. The SDA system injectors are placed at a point inside the exhaust gas ductwork downstream of EU05 and before the baghouse, which provides for adequate residence time for acid gases to react with the caustic. The SDA uses a specific gravity setpoint to control the concentration of water and sodium hydroxide which in turn correlates to a HCl removal efficiency and emission factor. The specific gravity setpoint can be increased, increasing the concentration of caustic being sprayed into the tower, which increases the removal of HCl from the flue gas, to a point. The CAM Plan (included as Appendix 5) further describes operation of the SDA and its control of HCl emissions.

The Reagent Specific Gravity and SDA Outlet Temperature were selected as performance indicators because they are indicative of operation of the SDA system in a manner necessary to remove HCl as intended and to comply with the HAP emission limit. When the SDA system is operating properly, the Reagent Specific Gravity will be greater than (or equal to) 1.010 and the SDA Outlet Temperature will be greater than (or equal to) 220°F. Parameter values outside of the specified ranges will indicate a malfunctioning control device as described as follows.

The caustic solution application rate is held constant, therefore specific gravity is varied to ensure the appropriate amount of absorbent is applied to neutralize the HCl in the flue gas. Reagent Specific Gravity is a direct indication of the concentration, therefore, the greater the specific gravity, the greater the NaOH concentration in the absorbent. For a malfunction in which the specific gravity is below the specified range, there will not be enough base present to neutralize the HCl in the flue gas, which will result in elevated HCl emissions.

The absorption process requires intimate contact between the sorbent and flue gas. The SDA Outlet Temperature must be above 220°F to prevent condensation in the control equipment and associated exhaust system.

There is duplicative backup support equipment, such as additional tanks and pumps, should some of the equipment be taken out of service for any reason, including a malfunction. The SDA backup equipment reduces the possibility for exceeding the single HAP limit contained in SC I.1 for FGFACILITY due to failure of some of the equipment associated with the SDA. The SDA is designed to reduce uncontrolled HCl such that Neenah qualifies as a minor (area) source of HAP emissions.

3.2 Baghouse Dust Collector

Baghouse or fabric filter dust collectors are used to remove particulate matter (PM) from the coal-fired boiler exhaust gas. Generally, all fabric filters have: a tube sheet to which the bags are attached, an inlet for drum exhaust air, an outlet for filtered air, and an opening at the bottom through which the collected dust can drop out. Fabric filter dust collectors are very effective in ensuring compliance and are considered the best available control technology (BACT) for PM control. Additional information on baghouse dust collectors is included in Attachment 2, including a diagram illustrating how the system operates. In a reverse air baghouse dust collector, exhaust gas containing PM enters the lower section of the collector where it is evenly distributed, maintaining a consistent flow through the collector as well as a consistent pressure drop.

As presented in Attachment 2, PM collects on the 'dirty side' (or exterior) of the bag as the exhaust air travels through the bags. The collector operates on a pre-programmed cleaning cycle during which two rotating distributors allow air to flow to the clean side of the bags in one compartment at a time; this releases the dust cake from the filter bags. Clean filtered air is routed to the clean air plenum and into the exhaust stack. This baghouse dust collector has five separate modules and is required to operate at least three baghouse modules

at any one time. If less than three modules are in operation while firing coal, the plant is required to take corrective action.

Because modules can be taken out of service for cleaning, smooth uninterrupted operation of the fabric filter dust collector at constant operating pressure is possible. Neenah monitors baghouse pressure drop to ensure that bags in service are not blindered nor leaking. Bag leaks can be caused by many things including: torn bags, worn bags, improperly fitting bags, and dislodged bags. Fabric filter leaks can be very small or large; they can occur instantaneously or progress over time, depending on the failure mode. However, leaks do not always result in an exceedance of observed opacity which is measured using a continuous opacity monitor.

To ensure proper operation of the baghouse dust collector, differential pressure drop, and inlet temperature of the fabric filter dust collector is monitored continuously and maintained in ranges identified by the manufacturer as acceptable. The monitoring results are continuously monitored and recorded; any out of range values are addressed and corrective actions are logged. The **baghouse** uses a dry filtering mechanism (woven bags) which control solid PM emissions from EU05 while combusting coal fuel. Coal contains inert material (ash) that remains after combustion. A portion of the ash is retained inside the boiler and is removed from the stoker grates. The rest of the ash becomes fly ash, which is entrained in the exhaust gas stream exiting the boiler. The dry filter bags in the baghouse capture the fly ash, which is then removed from each internal bag via compressed air pulsing. The fly ash is deposited in the bottom hoppers of the baghouse; these hoppers are regularly emptied to ensure proper functioning of the baghouse. After the fly ash is removed from the baghouse, it is transported to a landfill for permanent disposal. A small portion of the collected material in the baghouse consists of sodium chloride as a result of the reaction between caustic and HCl in the exhaust gas stream.

3.3 Monitoring Operating Parameters

While EU05 does not directly monitoring emissions, it does monitor control equipment operating parameters to ensure compliance with its emission limits; as described in the CAM Plan (Appendix 5), these include:

- Baghouse: Opacity (using a COMS)
- SDA: Reagent Specific Gravity (which indicates solution concentration) and SDA Outlet Temperature

4.0 Source Description

EU05 is a stoker coal-fired and natural gas-fired boiler with a design heat input of 202 MMBtu/hr. Coal is the primary fuel during normal operation. EU05 is currently capable of accommodating natural gas fuel up to approximately 35% of EU05's heat input.

The steam from EU05 is used for generating electricity for use by Neenah's Mill as well as for various other Mill needs.

5.0 Minimizing Emissions During Startup and Shutdown

Boiler emissions during start-up and shutdown are minimized primarily by following proper procedures. Boiler start-up is governed by an internal procedure for start-up (PH-OPER-100-NO.1 BOILER START-UP), while boiler shutdown is governed by a separate internal procedure (PH-OPER-101-NO.1 BOILER SHUTDOWN). Neenah has other procedures in place to ensure boiler and control equipment proper operation. The boiler is started on natural gas and natural gas is fired at low loads and during a controlled shutdown to ensure exhaust gases are compliant are compliant with emission limits. In most cases, boiler load (measured by steam pressure) must be above 30% to operate control equipment, because low exhaust temperatures would allow condensation of

water and would form acid in the exhaust system. Though Neenah will not begin firing coal unless the baghouse dust collector and SDA are in operation. As a result, both the baghouse dust collector and SDA will be bypassed until the exhaust gas temperature is high enough to avoid condensing acid within the control equipment exhaust system. The baghouse dust collector is bypassed until the exhaust gas temperature is at least 220°F while the SDA is disabled until the SDA Inlet Temperature is above 220°F.

6.0 Responsible Personnel

The responsible personnel for purposes of this Preventive Maintenance and Malfunction Abatement Plan are as follows:

Table 2 – Responsible Personnel

Position	Responsibility
Mill Manager (or equivalent)	Total mill operations
Engineering Manager	Corrective actions, malfunction response, and routine inspections
Maintenance	Preventative maintenance inspections and repairs
Environmental Manager (or equivalent)	Pollution control equipment monitoring and oversight
Outside Contractors (as necessary)	Calibration, repairs, and maintenance of equipment instrumentation

7.0 Preventive Maintenance Program, Operational Variables, and Corrective Procedures

Preventive maintenance will include equipment inspections, scheduled replacement of parts, and maintaining an inventory of critical spare parts. The facility’s I&M database system tracks and maintains records of each preventive maintenance action and/or repair completed and will track maintenance and repairs performed.

Equipment inspections generally fall under two categories:

- Inspections that take place while EU05 is operating.
- Less frequent inspections that take place while EU05 is not operating.

I&M that occurs during EU05 operation is typically on a more frequent basis than I&M that occurs when EU05 is not operating (shutdown). The frequency and scope of these inspections will depend on the manufacturer recommendations and operator experience.

A comprehensive preventive maintenance schedule is kept at Neenah’s Mill in Munising and is incorporated by reference. A copy of the schedule is available to the MDEQ upon written request.

Neenah will utilize internal resources as well as outside vendors to conduct maintenance, repairs, and calibration, as necessary.

7.1 Items Inspected and Operational Variables

The following table provides general information regarding: 1) frequency of inspection, 2) normal operating ranges and monitoring of operational variables, and 3) corrective procedures for the air cleaning devices for EU05.

Table 3 – Inspection Procedures and Operational Variables

Description of Observation	Method of Observation	Normal Operating Range	Frequency of Observation	Comments
VE	COMS	Less than 20% opacity	Continuous	Opacity readings greater than 20% may indicate a potential issue with the EU05 baghouse.
Baghouse Pressure Differential	Pressure gauge	0.5 to 5.5 inches of water	Pressure drop across the baghouse is continuously monitored by gauges affixed to the equipment; readings are electronically recorded. If electronic recording becomes unavailable, the pressure drop readings will be manually recorded once per operating day.	When maximum allowable differential is exceeded, the baghouse will automatically start the cleaning cycle.
Reagent Specific Gravity	Metering equipment is used to measure NaOH and water to achieve a proper mix	Specific gravity set point is adjustable, typically it is between 1.030 and 1.040 with a minimum of 1.010	Continuous, recorded once per day	Drift from set point may indicate a potential issue with the SDA system.
SDA Outlet Temperature	A meter is used to monitor and control the SDA temperature	Temperature set point is adjustable, typically 265°F-290°F with a minimum of 220°F	Continuous, recorded once per day	Drift from set point may indicate a potential issue with the SDA system.
Monitoring Devices ¹	Calibration and Certification of Accuracy	According to manufacturer instructions	Annually	N/A

¹ Monitoring Devices consist of: (a) baghouse differential pressure measuring devices, (b) COMS and (c) SDA metering equipment.

² The control efficiency can be adjusted upward or downward as needed to meet its 12-month rolling total emission rate by adjusting the specific gravity (or concentration) of the reagent while keeping the flow rate constant

N/A not applicable

7.2 Weekly Maintenance Schedule

1. Inspect the tank levels, check for leaks and check temperatures.
2. Inspect air compressors and dryers.
3. Make sure the SDA ash cleanout is functioning properly and the tote is not over filling.
4. Clean all six SDA injector nozzle/lances twice per month (biweekly). These are the nozzles that inject the caustic solution into the exhaust gases from EU05.
5. Inspect Air Dryers No. 8 and 9.
6. Maintain a record of the observation(s) and service(s) performed.

7.3 Monthly Maintenance Schedule

1. Change the oil in the SDA rotary air lock.
2. Inspect paddle mixer paddles and pins, grease purge lines on shafts, grease stub shaft bearings, lubricate roller chain.
3. Change the filter on the fly ash vacuum blower.
4. Visually check equipment operation, as needed.
5. Maintain a record of the observation(s) and service(s) performed.

7.4 Quarterly Maintenance Schedule

1. Lubricate as necessary.
2. Change the oil in the fly ash vacuum blower.
3. Paddle Mixer -inspect roller chain and adjust as needed.
4. Change oil in gear box.
5. Grease idler sprocket shaft.
6. Change water filters on nozzle water supply and blend tank blow down line.
7. Change the oil in the gear box for the SDA screw conveyor.
8. Maintain a record of the observation(s) and service(s) performed.

7.5 Semiannual Routine Maintenance

1. Change the oil in the chemical pumps.
2. Change the oil or clean out the conveyor gear box.
3. Check the drive bolts on the conveyors and blowers.
4. Lubricate Paddle Mixer motor.
5. Maintain a record of the observation(s) and service(s) performed.

7.6 Annual Routine Maintenance

1. Inspect and clean the SDA tower.
2. Inspect the baghouse and SDA for any signs of needed maintenance.
3. Lubricate the compressor motor.
4. Calibrate all instruments.
5. Using a kit, conduct routine preventive maintenance for the NaOH pumps.
6. Inspect and change oil on the rotary air lock for the paddle mixer.
7. Inspect and lubricate the rotary air lock for the SDA scrubber tower.
8. Inspect and clean the motor control center. Check all terminals for secure connections.
9. Inspect the SDA screw conveyor and change out any worn parts.
10. Maintain a record of the observation(s) and service(s) performed.

7.7 Corrective Action

If a malfunction occurs which causes, or may cause, excess emissions during EU05 operations, the equipment causing the potential excess emission rate will be evaluated – as soon as practicable in accordance with safe operating procedures – to determine the proper procedure to correct the issue or determine that the malfunction will not cause excess emissions.

EU05 may continue to operate consistent with good air pollution control practices until the SDA and/or baghouse can be repaired and brought back on-line before resuming normal operation. EU05 can switch to natural gas firing; however, the unit cannot operate at loads higher than 35% of maximum capacity using only this fuel.

If a malfunction occurs, the Mill Manager, or designated representative, will determine whether EU05 can continue to operate consistent with the requirements of the PTI and ROP. If not, appropriate plant personnel will follow the procedure outlined below:

- Define and correct the issue, which may include investigating the following conditions:
 - Malfunction of the NaOH solution feed to the EU05 exhaust gases
 - Baghouse is plugged with solids
 - Baghouse bag(s) torn
 - Malfunction of baghouse exit gas fan to stack
 - Malfunction of baghouse differential pressure system
 - Pressure drop across the baghouse deviates from appropriate range
 - Malfunction of baghouse monitoring system
- Determine if EU05 can continue to operate within compliance of the limitations specified in the facility's PTI and/or ROP. If not, action shall be taken to correct the issue in accordance with safe operating procedures.
- Notify the appropriate staff of any issues that occur and/or if there are any questions regarding compliance or action(s) which should be taken to correct the issue.
- If the issue is one that calls for immediate corrective action, contact any one of the individuals listed in Section 5.0, Table 2.

7.8 Preventive Maintenance Records

The following records will be maintained:

1. Inspections and service of the baghouse and SDA. All records will include the date, findings, and corrective actions taken or repairs made, if necessary.
2. All significant unscheduled maintenance activities performed on the baghouse and/or SDA. Records will include the date, findings, and corrective actions taken or repairs made, if necessary.

7.9 Common Baghouse Malfunctions

Table 4 – Baghouse Operating Issues and Solutions

Symptom	Cause	Solution
High baghouse pressure drop	Bag cleaning mechanism not properly adjusted	Increase cleaning frequency
		Clean for longer duration
	Compressed air pressure too low	Increase pressure
		Decrease duration and frequency
		Check compressed air dryer and clean if necessary
		Check for obstructions in piping
	Pulsing valves failed	Check diaphragm
		Check pilot valves
	Cleaning timer failure	Check to see if timer is indexing to all contacts
		Check output on all terminals
	Not capable of removing dust from bags	Check for condensation on bags
		Analyze dust and bags to determine if there is an issue
		Dry clean or replace bags
		Reduce airflow
	Excessive re-entrainment of dust	Empty hopper continuously
Clean rows of bags randomly, rather than sequentially		
Isolate suspect module		
Incorrect pressure drop reading	Clean out pressure taps	
	Check hoses for leaks	
	Check diaphragm in gauge	
Dirty discharge at stack	Bags leaking	Replace bags
		Tie off leaking bags and replace them later
		Isolate leaking compartment or module
	Bag clamps not sealing	Check and tighten clamps
		Smooth out cloth under clamp and re-clamp
	Failure of seals in joints at clean/dirty air connection	Caulk or weld seams
	Insufficient filter cake	Allow more dust buildup on bags by cleaning less frequently
Bags too porous	Send bag in for permeability test and review with manufacturer	
Cleaning cycle too frequent	Reduce cleaning cycle, if possible	
Dirty discharge at stack	Pulse too long	Reduce pulsing duration

Table 4 – Baghouse Operating Issues and Solutions

Symptom	Cause	Solution
	Pressure too high	Reduce supply pressure, if possible
High compressed air consumption	Diaphragm valve failure	Check diaphragm and springs
		Check pilot valve
Reduced compressed air pressure	Compressed air consumption too high	See previous solutions
	Restrictions in compressed air piping	Check compressed air piping
	Compressed air dryer plugged	Bypass dryer temporarily, if possible
		Replace dryer
	Compressor worn out	Replace rings
		Check for worn components
		Rebuild compressor or consult manufacturer
	Pulsing valves not working	Check pilot valves, springs, and diaphragms
Timer failed	Check terminal outputs or replace circuit board	
Insufficient preheating	Run the system with hot air only before process gas flow is introduced	
Moisture in baghouse	Internal baghouse too cold	Insulate unit
		Lower dew point by keeping moisture out of system
	Cold spots through insulation	Eliminate cold spots via insulation
	Water/moisture in compressed air	Check automatic drains
		Install after cooler
Re-pressurizing air causing condensation	Install dryer	
Material bridging in hopper	Dust stored in hoppers	Preheat re-pressurizing air
	Hopper slope insufficient	Remove dust continuously
	Too much dust	Use vibrators
	Cleaning cycle too frequent	Install primary collector
High rate of bag failure, bags wearing out	Inlet air improperly baffled from bags	Slow down periodic cleaning
	Pulsing pressure too high	Consult vendor
	Cages have barbs	Reduce pressure
		Remove cages and smooth out barbs

7.10 Common SDA Malfunctions

Table 5 – SDA Operating Issues and Solutions

Symptom	Cause	Solution
SDA Reduced Injection Rate	Pump failure	Switch to backup pump
		Replace/fix pump motor
		Dismantle pump to remove any obstruction(s)
		Reset breaker
	Plugged piping	Replace pump
		Detect where plug is and clean out obstruction
Plugged injector(s)	Loss of compressed air	Detect injectors that may be plugged, and dismantle and remove any obstruction(s)
		Replace compressor
		Replace/fix compressor motor
Dilute Ratio of NaOH and Water	NaOH and water blending not working correctly	Repair damaged air tank
		Evaluate reason and repair
	NaOH metering system not working	Replace recirculation pump/motor
		Evaluate reason and repair or replace
Ran out of NaOH	Replace density meter.	
SDA clean out conveyor inoperable.	Ran out of NaOH	Obtain NaOH from supplier; preferably prior to running out
		Broken belts
		Replace belts.
		Material clog
Lance pressures not matching.	Check valve failure	Clean out bottom of SDA tower.
		Motor inoperable
		Replace motor / reset breaker or overload.
Empty pump cavity fault.	Loss of prime on pump	Replace speed sensor.
		Speed sensor malfunction
Loss of compressed air pressure of flow	Leaks	Replace check valve.
		Air filter dirty
		Prime pump.
		Switch pumps.
		Repair leaks.
		Replace Filter

8.0 Major Parts Kept Onsite for Quick Replacement

Following is a list of general spare parts kept onsite facilitating quick replacement for the SDA. A detailed list, which includes each part's description and part number, is kept at Neenah for ordering should some of the parts be depleted.

Quantity	Description
4	Various valves
8	Various transmitters
2	Various drives
4	Ethernet boards for drives
1	Fly ash vacuum blower
13	Various electrical motors
11	Various drive belts
2	Air filters for compressors
1	Compressor separator
1	Progressive cavity screw pump
6	Injection nozzles
3	Various filters
1	Flow regulator (lance assembly)
1	Separator (compressor)
1	Spare SDA injector lance
2	Manhole gaskets

9.0 HAP Emissions Tracking and Monitoring

Neenah Paper ensures compliance with the source-wide individual HAP emission limit of 9.5 tons per 12-month rolling total in ROP MI-ROP-B1470-2019 by closely tracking the HCl emissions from EU05. Emission factors are obtained by engineering testing, performance testing or compliance testing, with the use of Method 26A, Fourier-transform infrared spectroscopy or Tunable Diode Laser. An explanation of emission calculations is included as Appendix 2. A summary of the emission factors developed from the most recent testing is included as Appendix 3, which contains an emission factor summary table of controlled and uncontrolled emission factors used in the emission tracking spreadsheet. The current method was discussed with the air quality inspector and District Supervisor before being implemented. HCl emissions are calculated for reporting by using the coal throughput in EU05 and using HCl emission factors that have been determined by both compliance testing, performance and engineering testing. Different emission factors are generated based on the control efficiency of the SDA. The control efficiency of the SDA can be adjusted by adjusting the specific gravity setpoint which changes the concentration of NaOH being injected into the reaction tower. As additional information is collected from the SDA and additional testing is performed the emission factors will be updated accordingly and the Preventive Maintenance and Malfunction Abatement Plan will be revised.

Emissions are calculated using emission factors multiplied by the fuel throughput in conjunction with its heating value. Daily coal use is determined by using a gravimetric weigh belt feeder. The coal usage is shown in tons per hour and totalized on a daily and monthly basis.

SDA downtime logs are filled out by the Powerhouse crew and times are checked against records in the Process Information (PI) system to ensure accuracy. SDA downtimes greater than five minutes during EU05 operation are recorded and included in the emissions tracking spreadsheet.

Uncontrolled HCl emissions (tons/12 months) =

$(\text{coal burned without control equipment} - \text{tons/mo}) \times (\text{heat input} - \text{MMBtu/ton}) \times (\text{uncontrolled emission factor} - \text{lb/MMBtu}) \times (\text{ton}/2,000 \text{ lb})$

Controlled HCl emissions (tons/12 months) =

$(\text{coal burned with control equipment} - \text{tons/mo}) \times (\text{heat input} - \text{MMBtu/ton}) \times (\text{controlled emission factor} - \text{lb/MMBtu}) \times (\text{ton}/2000 \text{ lbs})$

Total HCl emissions (tons/12 months) =

Uncontrolled HCl emissions (tons/12 months) + Controlled HCl emissions (tons/12 months)

A detailed summary of the MS Excel® equations used in the emission tracking spreadsheet can be found in Appendix 2. Appendix 3 contains an emission factor summary table of controlled and uncontrolled emission factors used in the emission tracking spreadsheet. The emissions tracking spread sheets can be updated when additional information or stack testing becomes available.

10.0 Reporting Malfunctions and Abnormal Conditions

Michigan Rules 912(2)-(5) require facilities to report of certain abnormal conditions, start-up, shutdown, or malfunctions associated with process and/or emission control systems subject to air quality requirements.

Michigan Rule 912(2) addresses reporting requirements for sources releasing emissions of HAPs and/or TACs in excess of applicable limitations for one hour or more. The requirement reads:

The owner or operator of a source, process, or process equipment shall provide notice of an abnormal condition, start-up, shutdown, or a malfunction that results in emissions of a hazardous air pollutant which continue for more than 1 hour in excess of any applicable standard or limitation established by the clean air act or the emissions of a toxic air contaminant which continue for more than 1 hour in excess of an emission standard established by a rule promulgated under the air pollution act or an emission limitation specified in a permit issued or order entered under the air pollution act.

Michigan Rule 912(3) addresses reporting requirements for sources releasing emissions of any air contaminant in excess of allowable emission rates for two hours or more. The rule reads:

The owner or operator of a source, process, or process equipment shall provide notice and a written report of an abnormal condition, start-up, shutdown, or a malfunction that results in emissions of any air contaminant continuing for more than 2 hours in excess of a standard or limitation established by any applicable requirement.

Rule 912(4) establishes the reporting timelines. The rule reads:

The notices required by this rule shall be provided to the department as soon as reasonably possible, but not later than 2 business days after the start-up or shutdown or after discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication.

The content requirements for reports submitted under Rule 912 are specified in Rule 912(5). The Rule reads:

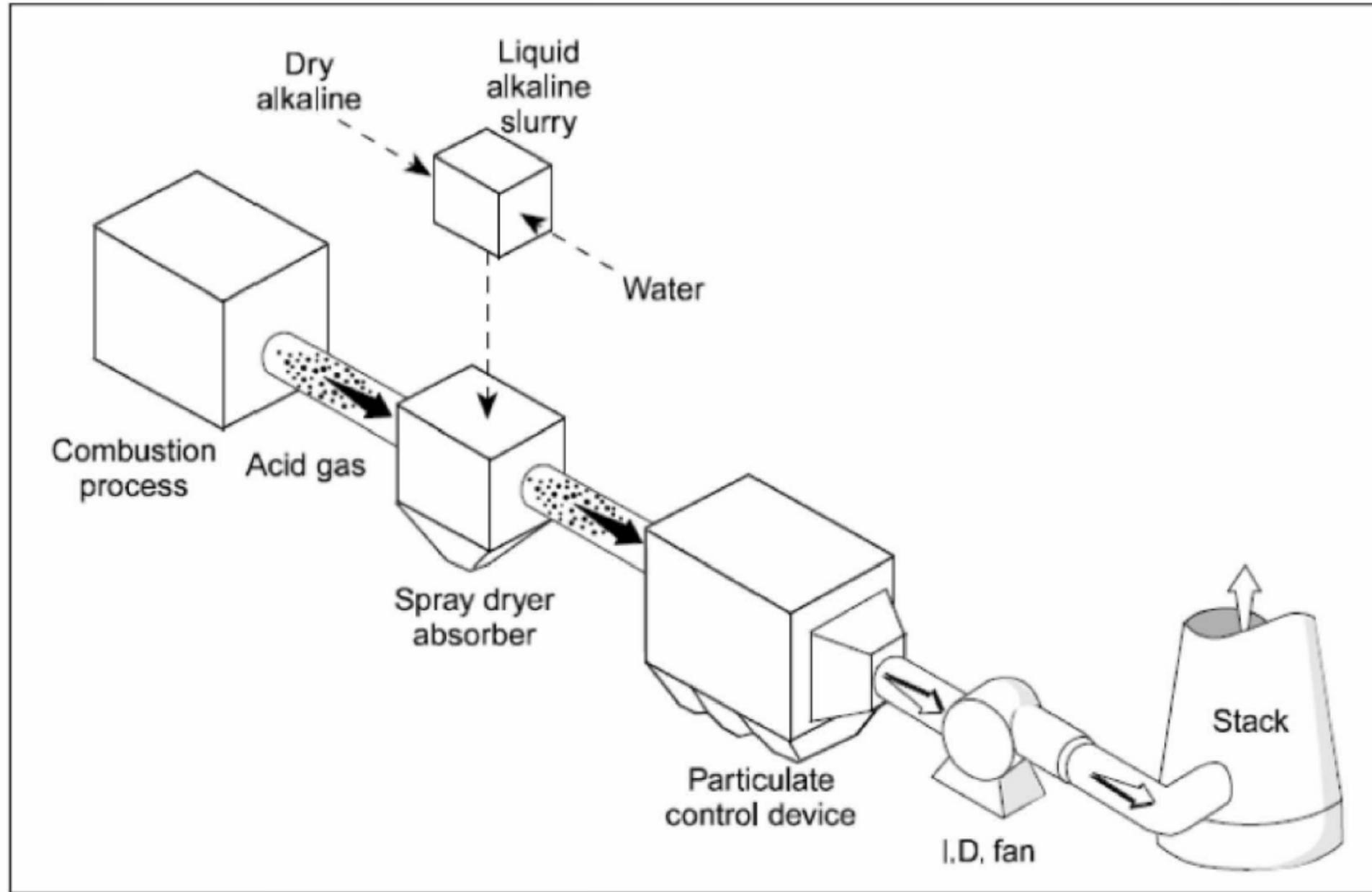
The written reports required under this rule shall be submitted within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the following information:

- (a) The time and date, the probable causes or reasons for, and the duration of the abnormal conditions, start-up, shutdown, or malfunction.*
- (b) An identification of the source, process, or process equipment that experienced abnormal conditions, was started up or shut down, or which malfunctioned and all other affected process or process equipment that have emissions in excess of an applicable requirement, including a description of the type and, where known or where it is reasonably possible to estimate, the quantity or magnitude of emissions in excess of applicable requirements.*
- (c) Information describing the measures taken and air pollution control practices followed to minimize emissions.*
- (d) For abnormal conditions and malfunctions, the report shall also include a summary of the actions taken to correct and to prevent a reoccurrence of the abnormal conditions or malfunction and the time taken to correct the malfunction.*

Neenah will report abnormal conditions or malfunctions associated with process and/or emission control systems in accordance with the requirements of Rule 912. An example form is included as Appendix 4.

Figures

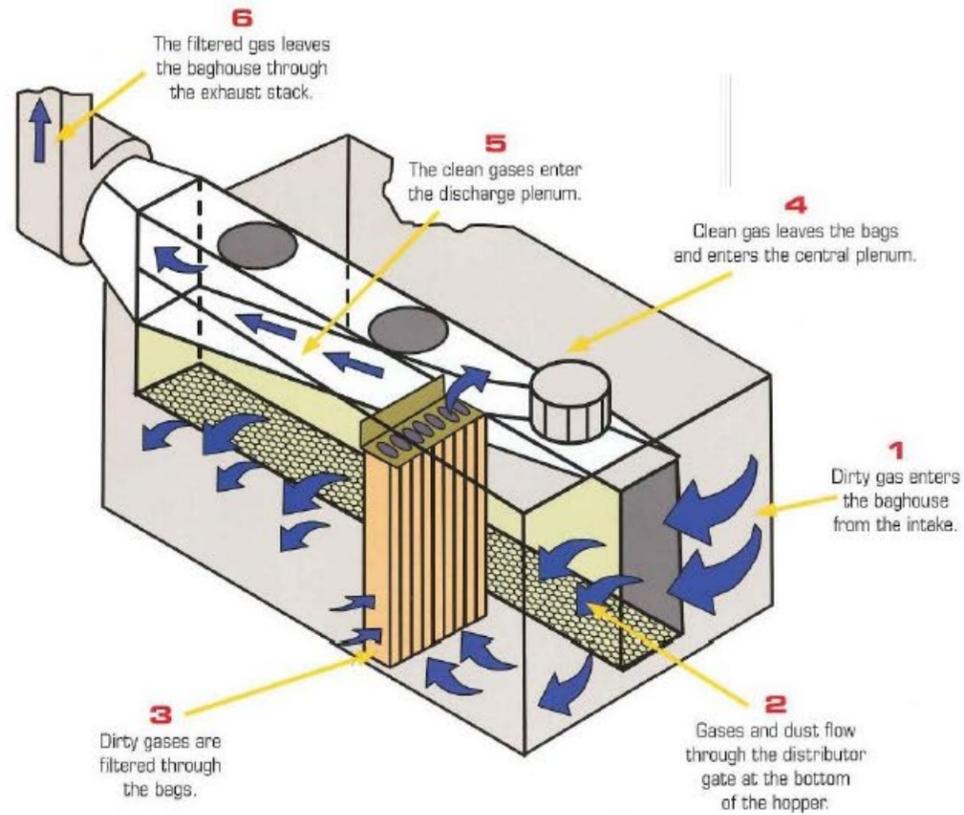
PLOT INFO: Z:\01919198\4848\CD\3001-190348.DWG LAYOUT: FIG01_SPRAY DRY ABSORBER DATE: 4/10/2016 TIME: 10:25:59 PM USER: ACS



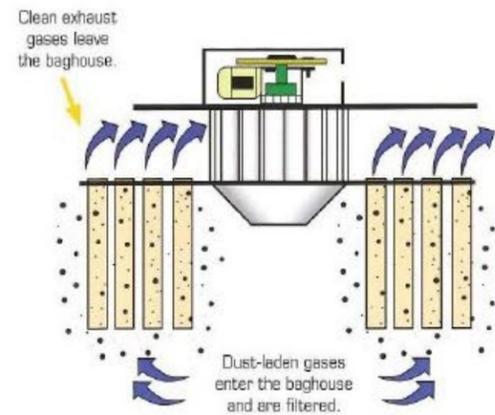
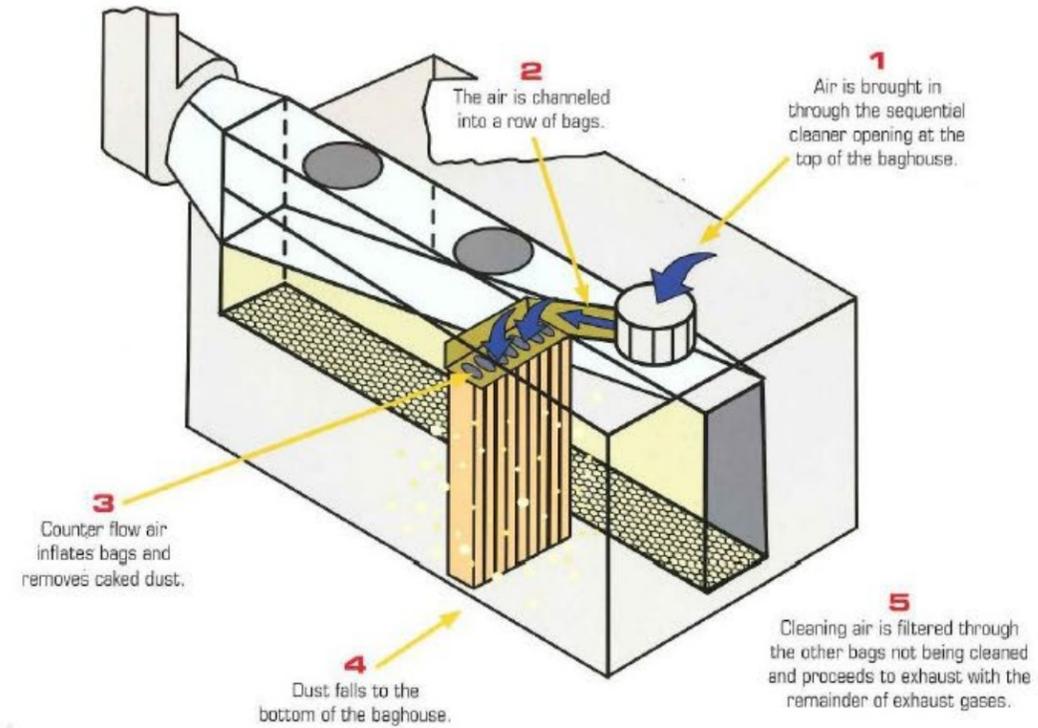
**SPRAY DRY
ABSORBER**

Appendix 1

AIR FLOW PROCESS



CLEANING CYCLE



AIR FLOW PROCESS

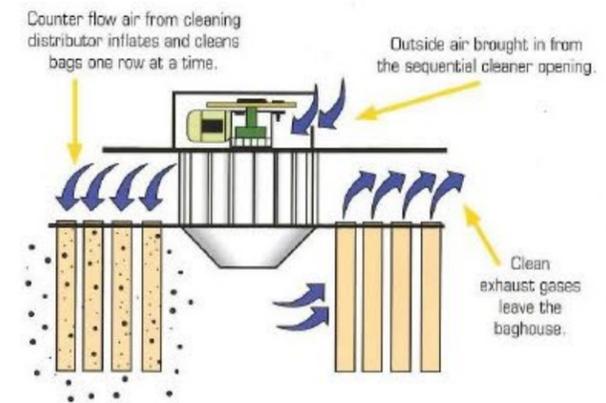
Particulate-laden exhaust gases enter the center of the lower baghouse section and are evenly distributed across the entire filtration medium through a specially designed gas plenum that maintains a consistent air flow and pressure across the full length of the baghouse. Each row of bags is isolated from the next to allow closer spacing of the bags, and each elliptical bag provides two times more filter cloth area per foot of bag.

A series of rotating cleaning distributors is located on top of the baghouse. Each cleaning distributor is responsible for approximately 18 isolated rows of bags. The cleaning distributor, while in the parked position, allows exhaust gases to pass through the bags. Dust particles are captured by the bag, and a dust cake layer is formed on the outside of the bag. Filtered exhaust air leaves the bag and passes through the parked cleaning distributor to the clean air plenum and exhaust system.

CLEANING CYCLE

When in the bag cleaning mode, the cleaning distributor rotates clockwise and stops in front of each row of bags, sending a quick burst of counter flow air into the bags. This gentle counter flow burst of air knocks the dust free from the bags and sends it to the bottom of the hopper, where it is removed by the dust auger.

Less than 5% of the total house filtration medium is cleaned at one time, allowing for smooth uninterrupted operation of the filter at constant operating pressure. The sequential cleaning distributor is controlled by means of a preset photohelic gauge, which maintains the house at optimum collection and production efficiency. Because of the smooth transfer of the sequential distributor, the continuous flow of production gases is uninterrupted during the cleaning cycle.



Appendix 2

HCl Actual Emissions (MS Excel Worksheet)
MS Excel® Workbook “Environmental & Emissions.xlsx”
Worksheet “Power House Daily Record”

Column I: Daily Coal Use (tons)

Input: Derived from the PI System as the flow of coal to the stocker in pounds per hour as measured by the gravimetric weigh belt feeder’s load cell and belt speed.

Column J: Hours EU05 Operated

Input: EU05 is the coal-fired boiler.

Column K: Hours EU05 Operated with SDA Offline

Input: These numbers are retrieved from the PI System as well as recorded by the boiler operator on the *SDA Shutdown Log*.

Column L: Controlled Emission Factor as derived from stack testing measurements. See Appendix 3

Input: Heat Value of the Coal (13,600 Btu/lb.) is derived from years of coal analytical data.

Column M: Daily Pounds of HCL emitted

Formula: =IF(J1335=0,0,(I1335/J1335*(J1335-K1335)*0.0136*L1335)+(I1335*K1335/J1335*0.157*0.0136))*2000

If Column J is blank or zero, return zero to prevent divide by zero errors. I.E. if EU05 did not operate, then no emission, else calculate emission as show below.

If there is a number in Column J, the following equation applies.

Daily Coal Use (tons) Hours EU05 Operated	x	2000 (lb/ton)	x	(Hours Operated - Hours Operated with SDA Offline)	x	Heat Value of Coal 13600 (BTU/lb) 1,000,000 (BTU/MMBTU)	x	Controlled Emission Factor (#HCL/MMBTU)
+ PLUS								
Daily Coal Use (tons) Hours EU05 Operated	x	2000 (lb/ton)	x	Hours Operated with SDA Offline	x	Heat Value of Coal 13600 (BTU/lb) 1,000,000 (BTU/MMBTU)	x	0.157 Uncontrolled Emission Factor (#HCL/MMBTU)
EQUALS								
Daily # HCL Emitted								

HCl Actual Emissions (MS Excel Worksheet)

MS Excel® Workbook “Environmental & Emissions.xlsx”
Worksheet “Summary”

Column A: Repetitive cycle of all 12 months

Column B: 12 repetitive year values for each month

Column C: Month and Year for Cumulative HCL emissions

Formula: =DATEVALUE(A22&B22)

Converts **Column A** Month and **Column B** Year to format compatible with “SUMIFS” function below.

Column E: Cumulative sum of monthly HCL emissions in pounds.

Formula: =SUMIFS('Powerhouse Daily Record'!M:M,'Powerhouse Daily Record'!\$A:\$A,">="&Summary!\$C28,'Powerhouse Daily Record'!\$A:\$A,"<="&EOMONTH(Summary!\$C28,0)).

Totals all HCL emission values calculated above in “Powerhouse Daily Record” worksheet Column M “Daily HCL Pounds” for the month requested in column “C”

Column G: 12 month Rolling HCL Emissions (Tons)

Formula: = IF(E28=0,"",SUM(E17:E28)/2000)

If there is nothing in Column E “Monthly HCL” emissions, leave cell blank.

If there is a number in Column E, SUM the last 12 rows and divide by 2000#/ton. This equation provides a running total of our yearly emissions.

Appendix 3

Appendix 3 2016 MAERS HCl Emission Factor Summary*

Emission Factor Type	HCl Emission Factor	Specific Gravity Setpoint	SDA Outlet Temperature °F	Test Report	Notes
Uncontrolled	0.1570 lb HCl/MMBtu	NA	NA	<i>Particulate Matter and Hydrochloric Acid Emissions Test Summary Report (March 25, 2016)</i>	Run #2 inlet lb/MMBTU.
Controlled	0.0110 lb HCl/MMBtu	1.067	265	Control factor from performance test February 2016. <i>Particulate Matter and Hydrochloric Acid Emissions Test Summary Report (March 25, 2016, page 3)</i>	Average of test results runs 3 &4. Method 26A used.
Controlled	0.0129 lb HCl/MMBtu	1.040	265	Based on compliance data <i>Test Report for the Verification of Air Pollutant Emissions From a Coal Fired Boiler and a Machine Coater (December 22, 2016)</i>	Method 26A compliance testing
Controlled	0.0139 lb HCl/MMBtu	1.034	265	Based on Compliance data from <i>TEST REPORT FOR THE VERIFICATION OF BOILIER AIR CONTAMINANT EMISSION RATES NOVEMBER 5, 2019</i>	Method 26A compliance testing. Average of 3 replicate data points
Controlled	0.0219 lb HCl/MMBtu	1.034	290	Based on Engineering data from <i>TEST REPORT FOR THE VERIFICATION OF BOILIER AIR CONTAMINANT EMISSION RATES NOVEMBER 5, 2019</i>	Average of test results runs 8 &9. Method 26A used. Boiler Limited to 110 KPPH when running these conditions
Controlled	0.0263 lb HCl/MMBtu	1.020	290	Based on Engineering data from <i>TEST REPORT FOR THE VERIFICATION OF BOILIER AIR CONTAMINANT EMISSION RATES NOVEMBER 5, 2019</i>	Average of test results runs 10 & 11. Method 26A used. Boiler Limited to 110 KPPH when running these conditions

* HCl emission factors used in emission tracking spreadsheet as of December 1, 2019.
Includes testing through October 3, 2019.

Appendix 4

ENVIRONMENTAL RELEASE REPORTING FORM

For internal use only.

To be completed by the Environmental Engineer

Date _____ Time of Report _____ Reported By _____

Location of Incident _____

Type of Incident Spill/Release Fire Explosion Other

Time Incident was Detected _____ a.m./p.m. Duration of Event _____

Name of Material(s) Released _____

Regulatory Status of Released Material: Michigan Critical Material Act 451, Part 31 Polluting Material

Oil RCRA CERCLA EPCRA/SARA

Amount Released _____ (lbs) RQ? Yes No

Container Type Drum UST AST Other _____

Release Characteristics Color _____ Odor _____ Other _____

Release Entering Drains Soil Surface Water Air Other _____

Weather Conditions Precipitation _____ Wind Direction/Speed _____

Company Response Personnel at Scene _____

Outside Response Personnel at Scene Spill Contractor(s) Fire Department

Regulatory _____ Governmental _____

Other _____

Injuries? No Yes (type of injuries) _____

Site or Building Evacuation? No Yes

Agencies Notified

MDEQ* Date _____ Time _____ Initials _____

Local Governmental Depts. Date _____ Time _____ Initials _____

PEAS Hotline Date _____ Time _____ Initials _____

EPA Response Center Date _____ Time _____ Initials _____

UST Release Hotline Date _____ Time _____ Initials _____

**Written report must be filed with the MDEQ within ten (10) days.*