**From:** Haque, Sultana
**To:** EGLE-ROP
**Cc:** Rich Menard; Slayback, Jeffrey; Lemley, Benjamin
**Subject:** Renewable Operating Permit (ROP) Renewal Application, ROP Number MI-ROP-N1315-2018, SRN N1315
**Date:** Wednesday, February 8, 2023 3:59:07 PM
**Attachments:** image001.png
LP Sagola ROP Renewal Application_February 2023.pdf

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TRC respectfully submits this ROP renewal application on behalf of the Louisiana-Pacific Corporation for its facility in Sagola, Michigan.

Please contact Rich Menard at 906-542-7360 or rich.menard@lpcorp.com or Jeff Slayback at 513-386- 6288 or jslayback@trccompanies.com. If you have any question.

Thank you,

Sultana

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

TRC

1540 Eisenhower Place, Ann Arbor, Michigan 48108
**T** 734.585.7782 | **F** 734.971.9022 | **C** 734.395.9230
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February 8, 2023

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

Subject: Renewable Operating Permit (ROP) Renewal Application
Louisiana-Pacific Corporation, Sagola Mill, SRN N1315
ROP Number MI-ROP-N1315-2018

Dear Mr. Conklin:

TRC respectfully submits this ROP renewal application on behalf of the Louisiana-Pacific Corporation for its facility in Sagola, Michigan (Sagola Mill). Louisiana-Pacific (LP) currently operates Sagola Mill under ROP number MI-ROP-N1315-2018 and the permit will expire on December 21, 2023. An administratively Complete ROP Renewal Application is due Between June 21, 2022 and June 21, 2023. LP was issued a Permit to Install (PTI) number 24-22A on December 14, 2022 to expand and convert the existing Sagola Mill to respond to market demand for siding and similar specialty engineered wood panel products. The expansion and conversion of the Sagola Mill included number of changes to the existing oriented strand board plant and installation of new equipment in an expanded building footprint. These changes were approved in the PTI and needs to be incorporated into the existing ROP. Therefore, content of the PTI has been proposed to be incorporated into the ROP where applicable.

This application contains the required information for an administratively complete ROP renewal application that includes the following:

- Attachment 1: EGLE Forms.
- Attachment 2: Relevant Emission Calculations
- Attachment 3: Mark-up of the existing ROP.
- Attachment 4: Plans referenced in an applicable permit requirement.
- Attachment 5: Copy of PTI number 24-22A.

A copy of the completed application has been submitted electronically via email to EGLE-ROP@michigan.gov.

If you have any questions or concerns, or need additional information, please contact Rich Menard, LP Sagola Plant Environmental Manager at 906-542-7360 or rich.menard@lpcorp.com or me at 513-386-6288 or jslayback@trccompanies.com.

Sincerely,

TRC

Jeff Slayback
Project Manager

Attachments

cc: Rich Menard, LP Sagola

# Attachment 1

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

# RENEWABLE OPERATING PERMIT APPLICATION
# C-001: CERTIFICATION

*This information is required by Article II, Chapter 1, part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to provide this information may result in civil and/or criminal penalties. Please type or print clearly.*

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

| Form Type **C-001** | SRN N1315 |
|---|---|

| Stationary Source Name Louisiana-Pacific Corporation, Sagola Plant | |
|---|---|
| City Sagola | County Dickinson |

## SUBMITTAL CERTIFICATION INFORMATION

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

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

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

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

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

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

**AI**

## CONTACT INFORMATION

| Contact Name Richard Menard | Title Plant Environmental Manager |
|---|---|
| Phone number 906-542-7360 | E-mail address rich.menard@lpcorp.com |

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

| Responsible Official Name Brett Wienen | | | Title Plant Manager | |
|---|---|---|---|---|
| Mailing address N8504 Highway M-95 | | | | |
| City Sagola | State MI | ZIP Code 49881 | County Dickinson | Country USA |

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

Brett Wienen — Signature of Responsible Official

2/7/23 — Date

EGLE

# RENEWABLE OPERATING PERMIT
# RENEWAL APPLICATION FORM

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

## GENERAL INSTRUCTIONS

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

## PART A: GENERAL INFORMATION

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

### SOURCE INFORMATION

| SRN | SIC Code | NAICS Code | Existing ROP Number | Section Number (if applicable) |
|---|---|---|---|---|
| N1315 | | 321219 | MI-ROP-N1315-2018 | |

| Source Name |
|---|
| Louisiana-Pacific Corporation, Sagola Plant |

| Street Address |
|---|
| N8504 Highway M-95 |

| City | State | ZIP Code | County |
|---|---|---|---|
| Sagola | MI | 49881 | Dickinson |

| Section/Town/Range (if address not available) |
|---|
| |

| Source Description |
|---|
| Engineered wood panel products (siding) and oriented strand board manufacturing plant. |

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

### OWNER INFORMATION

| Owner Name | Section Number (if applicable) |
|---|---|
| Louisiana-Pacific Corporation | |

| Mailing address (☐ check if same as source address) |
|---|
| 414 Union Street<br>Suite 2000 |

| City | State | ZIP Code | County | Country |
|---|---|---|---|---|
| Nashville | TN | 37219 | Davidson | USA |

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

| SRN: N1315 | Section Number (if applicable): |
|---|---|

## PART A: GENERAL INFORMATION (continued)

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

### CONTACT INFORMATION

| Contact 1 Name | | | Title | |
|---|---|---|---|---|
| Rich Menard | | | Plant Environmental Manager | |
| Company Name & Mailing address (☒ check if same as source address) | | | | |
| City | State | ZIP Code | County | Country |
| | | | | |
| Phone number | | E-mail address | | |
| 906-542-7360 | | rich.menard@lpcorp.com | | |

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

### RESPONSIBLE OFFICIAL INFORMATION

| Responsible Official 1 Name | | | Title | |
|---|---|---|---|---|
| Brett Wienen | | | Plant Manager | |
| Company Name & Mailing address (☒ check if same as source address) | | | | |
| City | State | ZIP Code | County | Country |
| | | | | |
| Phone number | | E-mail address | | |
| 906-542-7332 | | brett.wienen@lpcorp.com | | |

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

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

| SRN: N1315 | Section Number (if applicable): |
|---|---|

## PART B: APPLICATION SUBMITTAL and CERTIFICATION by Responsible Official

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

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

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

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

Brett Wienan Plant Manager

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

Brett Wienen — **Signature of Responsible Official**

2/7/23 — **Date**

| SRN: N1315 | Section Number (if applicable): |
|---|---|

## PART C: SOURCE REQUIREMENT INFORMATION

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

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

☒ Check here if an AI-001 Form is attached to provide more information for Part C. Enter AI-001 Form ID: **AI-C001**

EGLE

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

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

| SRN: N1315 | Section Number (if applicable): |
|---|---|

1. Additional Information ID
**AI-**C001

**Additional Information**

2. Is This Information Confidential? ☐ Yes ☒ No

C4 - Potential emission calculations for criteria air pollutants are attached in Attachment 2.
C5 - Potential emission calculations for HAPs are attached in Attachment 2.
C8 - Emission units subject to CAM are EUFORMING, FGDRYERS, FGBH1, FGBH2, FGBH4, FGBH5, FGBH6, FGBH7 and FGBH8. A copy of the CAM Plan is included in Attachment 4.

| SRN: N1315 | Section Number (if applicable): |
|---|---|

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

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

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

If No, go to Part E.

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

| **Emission Unit ID** | **Emission Unit Description** | **Rule 212(4) Citation** [e.g. Rule 212(4)(c)] | **Rule 201 Exemption Rule Citation** [e.g. Rule 282(2)(b)(i)] |
|---|---|---|---|
| IEUBLRS | Natural gas-fired service water heaters, low-pressure steam generators | Rule 212(4)(c) | Rule 282(2)(b)(i) |
| IEUHTRS | Natural gas-fired air make-up units and space heaters | Rule 212(4)(c) | Rule 282(2)(b)(i) |
| EUPFMIXTANK | Resin mix tank | Rule 212(4)(d) | Rule 284(2)(i) |
| EUPFMETERTANK | Resin metering tank | Rule 212(4)(d) | Rule 284(2)(i) |
| EURESINTANK1 | Resin tank | Rule 212(4)(d) | Rule 284(2)(i) |
| EURESINTANK2 | Resin tank | Rule 212(4)(d) | Rule 284(2)(i) |
| EURESINTANK3 | Resin tank | Rule 212(4)(d) | Rule 284(2)(i) |
| EURESINTANK4 | Resin tank | Rule 212(4)(d) | Rule 284(2)(i) |
| EUWAXTANK1 | Wax storage tank | Rule 212(4)(d) | Rule 284(2)(i) |
| EUWAXTANK2 | Wax storage tank | Rule 212(4)(d) | Rule 284(2)(i) |
| EUSPACEHEATERS | Natural gas space heaters | Rule 212(4)(c) | Rule 282(2)(b)(i) |
| EULPTANK | LP gas tanks | Rule 212(4)(d) | Rule 284(2)(b) |
| EUPRESSUREWASH | Kerosene fired hot water pressure washer | Rule 212(4)(c) | Rule 282(2)(b)(ii) |

Comments:

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

| SRN: N1315 | Section Number (if applicable): |
|---|---|

## PART E: EXISTING ROP INFORMATION

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

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

Comments:

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

| SRN: N1315 | Section Number (if applicable): |
|---|---|

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

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

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

| Permit to Install Number | Emission Units/Flexible Group ID(s) | Description (*Include Process Equipment, Control Devices and Monitoring Devices*) | Date Emission Unit was Installed/ Modified/ Reconstructed |
|---|---|---|---|
| 24-22A | See attached AI-F001 Form | See attached AI-F001 Form | See attached AI-F001 Form |
| | | | |
| | | | |
| | | | |

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

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

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

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

Comments:
Response to F1, F2, F3
See attached F-001 Form
Response to F4

SVBH1, SVBH2, SVBH3, SVBH4, SVBH5, SVBH6, SVBH7, SVBH8, SVPANELOV1, SVPANELOV2, SVLAP1OV1, SVLAP1OV2, SVLAP1XOV1, SVLAP1XOV2, SVLAP2OV1, SVLAP2OV2, SVLAP2XOV1, SVLAP2XOV2

☒ Check here if an AI-001 Form is attached to provide more information for Part F. Enter AI-001 Form ID: **AI-F001**

EGLE

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

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

| SRN: N1315 | Section Number (if applicable): |
|---|---|

1. Additional Information ID
**AI-**F001

**Additional Information**

2. Is This Information Confidential? ☐ Yes ☒ No

F1 - Emission units and flexible groups in the PTI No. 24-22A is Attached.
F2, F3 - A mark-up copy of the existing ROP is included in Attachment 3 and a copy of the PTI number 24-22A is included in Attachment 5.

**AI-F001**
**List of Emission Units in PTI No. 24-22A**

| Emission Unit ID | Emission Unit Description | Installation/Modification Date | Flexible Group ID |
|---|---|---|---|
| EUPRESS | Press System (EUPRESS) including the mat forming line with a paper overlay system and the board press. The paper overlay system will unroll, measure, cut, and apply the paper to the formed mat prior to the board press. The board press will include embossing plates to provide the SmartSide® wood grain finish. Emissions from EUPRESS are controlled by a single device that oxidizes VOCs and HAPs either thermally (RTO) or catalytically (RCO). When operating as a RCO a layer of catalyst is placed in the combustion chamber, which allows the oxidation of VOC and HAPs to occur at lower temperatures. If the catalyst deactivates, the RCO can be converted to a RTO simply by increasing the temperature in the combustion chamber. Exposing the catalyst to high temperatures for prolonged periods of time deactivates the catalyst thus a RTO cannot be converted to a RCO unless the new layer of catalyst is placed in the combustion chamber. | 1988 /1996 /2004 /2008 /2022 | N/A |
| EUFORMING | Forming line system includes blenders, formers, fines blender, fines former, flying cut off saw, mat forming line controlled by baghouse dust collector BH2. | 1988 /1998 /2022 | FGBH2, FGBH1 |
| EUSAWLINE | Sawline system includes first and second pass saws and controlled by baghouse dust collector BH4. | 1988 / 1998 /2022 | FGBH4, FGBH1, FGBH5 |
| EUPULVERIZING1 | #1 Fuel fines pulverizing mill | 2003 | FGBH3 |
| EUPULVERIZING2 | #2 Fuel fines pulverizing mill | 2003 | FGBH3 |
| EUSANDER | Sanding operations controlled by a baghouse dust collector BH7. | 1988 /1998 | FGBH7, FGBH1, FGBH5 |
| EUTGPATTERN | Tongue and Groove machine controlled by a baghouse dust collector BH7. | 1988 /1998 | FGBH7, FGBH1, FGBH5 |
| EUHAMMERMILL1 | Primary fuel fines hammermill. | 1988 /1998 | FGBH7, FGBH1, FGBH5 |
| EUFUELBIN | Fuel fines bin. | 1988 /2003 | FGBH1, FGBH3 |
| EUPANELLINE | Board (panel) sawing, trimming, scoring, sanding, and finishing controlled by baghouse dust collector BH6. | 2022 | FGBH6, FGBH5 |
| EUPANELOV | Direct heated natural gas-fired oven on the Panel finishing line, total heat input 5.0 million Btu/hr. | 2022 | FGFINISHOVENS |
| EULAPLANE1 | Board (lap) sawing, trimming, scoring, sanding, and finishing controlled by baghouse dust collector BH6. | 2022 | FGBH6, FGBH5 |
| EULAP1OV | Direct heated natural gas-fired oven on the Lap finishing lane 1, total heat input 5.0 million Btu/hr | 2022 | FGFINISHOVENS |
| EULAP1XOV | Direct heated natural gas-fired oven on the Lap finishing lane 1, total heat input 6.3 million Btu/hr. | 2022 | FGFINISHOVENS |
| EULAPLANE2 | Board (lap) sawing, trimming, scoring, sanding, and finishing controlled by baghouse dust collector BH6. | 2022 | FGBH6, FGBH5 |
| EULAP2OV | Direct heated natural gas-fired oven on the Lap finishing lane 2, total heat input 5.0 million Btu/hr. | 2022 | FGFINISHOVENS |
| EULAP2XOV | Direct heated natural gas-fired oven on the Lap finishing lane 2, total heat input 6.3 million Btu/hr. | 2022 | FGFINISHOVENS |
| EUVSLINE | Board (vented soffit) sawing, trimming, sanding, and finishing controlled by baghouse dust collector BH8. | 2022 | FGBH8, FGBH5 |

| Emission Unit ID | Emission Unit Description | Installation/Modification Date | Flexible Group ID |
|---|---|---|---|
| EUPRIMER | Non-VOC/HAP primer application on Panel, Lap, and VS lines by high-pressure spray or fan coater. | 2022 | N/A |
| EUHOG | Downgrade hog and room aspirations controlled by baghouse dust collector BH8. | 2022 | FGBH8, FGBH5 |
| EUOVERFINES | Overlay fines hammermill, storage bin, and metering bin controlled by baghouse dust collector BH5. | 2022 | FGBH5 |
| EUSCREENS | Aspiration from rotary screeners, conveyors, and dry bins controlled by baghouse dust collector BH1. | 2022 | FGBH1 |

**AI-F001**
**List of Flexible Groups in PTI No. 24-22A**

| Flexible Group ID | Flexible Group Description | Associated Emission Unit IDs |
|---|---|---|
| FGBH1 | A baghouse controlling particulate emissions from EUSCREENS, EUFORMING, EUSAWLINE, EUTGPATTERN, EUSANDER, EUHAMMERMILL1, and EUFUELBIN. | EUSCREENS, EUFORMING, EUSAWLINE, EUTGPATTERN, EUSANDER, EUHAMMERMILL1, EUFUELBIN |
| FGBH2 | A baghouse controlling particulate emissions from EUFORMING. | EUFORMING |
| FGBH3 | A baghouse controlling particulate emissions from EUPULVERIZNG1, EUPULVERIZNG2, EUHAMMERMILL1, EUFUELBIN and fuel fines material transfer. | EUPULVERIZNG1, EUPULVERIZNG2, EUHAMMERMILL1, EUFUELBIN |
| FGBH4 | A baghouse controlling particulate emissions from EUSAWLINE. | EUSAWLINE |
| FGBH5 | A baghouse controlling particulate emissions from EUOVERFINES, EUSAWLINE, EUPANELLINE, EULAPLANE1, EULAPLANE2, EUTGPATTERN, EUSANDER and fuel fines material transfer. | EUOVERFINES, EUSAWLINE, EUPANELLINE, EULAPLANE1, EULAPLANE2, EUTGPATTERN, EUSANDER |
| FGBH6 | A baghouse controlling particulate emissions from EUPANELLINE, EULAPLANE1, and EULAPLANE2. | EUPANELLINE, EULAPLANE1, EULAPLANE2 |
| FGBH7 | A baghouse controlling particulate emissions from EUPATTERN and EUSANDER. | EUTGPATTERN, EUSANDER |
| FGBH8 | A baghouse controlling particulate emissions from EUVSLINE and EUHOG. | EUVSLINE, EUHOG |
| FGFINISHOVENS | Direct natural gas fired ovens on the Panel finishing line and Lap finishing lanes 1 and 2. | EUPANELOV, EULAP1OV, EULAP1XOV, EULAP2OV, EULAP2XOV |
| FGBLRS/HTRS | Two (2) natural gas-fired service water heaters and thirty-nine (39) natural gas-fired air make-up units and space heaters. | NA |

| SRN: N1315 | Section Number (if applicable): |
|---|---|

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

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

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

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

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

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

Comments:

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

| SRN: N1315 | Section Number (if applicable): |
|---|---|

## PART H: REQUIREMENTS FOR ADDITION OR CHANGE

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

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

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

| SRN: N1315 | Section Number (if applicable): |
|---|---|

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

| | |
|---|---|
| H8. Does the source propose to add, change and/or delete **emission limit** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. | ☐ Yes ☐ No |
| H9. Does the source propose to add, change and/or delete **material limit** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. | ☐ Yes ☐ No |
| H10. Does the source propose to add, change and/or delete **process/operational restriction** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. | ☐ Yes ☐ No |
| H11. Does the source propose to add, change and/or delete **design/equipment parameter** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. | ☐ Yes ☐ No |
| H12. Does the source propose to add, change and/or delete **testing/sampling** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. | ☐ Yes ☐ No |
| H13. Does the source propose to add, change and/or delete **monitoring/recordkeeping** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. | ☐ Yes ☐ No |
| H14. Does the source propose to add, change and/or delete **reporting** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. | ☐ Yes ☐ No |

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

| | |
|---|---|
| H15. Does the source propose to add, change and/or delete **stack/vent restrictions**? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. | ☐ Yes ☐ No |
| H16. Does the source propose to add, change and/or delete any **other** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. | ☐ Yes ☐ No |
| H17. Does the source propose to add terms and conditions for an alternative operating scenario or intra-facility trading of emissions? If Yes, identify the proposed conditions in a mark-up of the corresponding section of the ROP and provide a justification below. | ☐ Yes ☐ No |
| ☐ Check here if an AI-001 Form is attached to provide more information for Part H. Enter AI-001 Form ID: **AI-** | |

# Attachment 2

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**Facility Wide PTE**
**ROP Renewal Application**

| | CO TPY | NOx TPY | $PM_{10}$ TPY | $PM_{2.5}$ TPY | $SO_2$ TPY | VOC TPY |
|---|---|---|---|---|---|---|
| ***Potential Emissions*** | | | | | | |
| EUTOH-WOOD - Geka Thermal Oil Heater, fired with wood and bark | 125.27 | 73.58 | 50.59 | 50.59 | 6.57 | 2.19 |
| EUTOH-NG - Geka Thermal Oil Heater, fired with natural gas | 8.67 | 12.40 | 0.74 | 0.74 | 63.07 | 0.57 |
| FGDRYERS - Wood flake dryers controlled by wet ESP and RTO | 633.95 | 153.76 | 23.54 | 23.54 | 2.79 | 52.39 |
| EUPRESS - Board Press with RCO/RTO | 79.05 | 155.00 | 11.16 | 11.16 | 0.03 | 12.40 |
| FGBH1 through FGBH8 - See Baghouse Operation Summary | - | - | 13.95 | 13.95 | - | 3.66 |
| FGFINISHOVENS - Panel and Lap Line Ovens | 9.96 | 6.04 | 0.06 | 0.05 | 0.07 | 0.65 |
| FGCIRICEMACT - Compression ignition emergency engines | 0.46 | 2.13 | 0.15 | 0.15 | 0.14 | 0.17 |
| FGSIRICEMACT - Spark ignition emergency engines | 0.02 | 0.03 | 0.00 | 0.00 | 0.00 | 0.04 |
| EUPRIMER - Finishing Line Primer Application | - | - | 1.02 | 1.02 | - | - |
| IEUBLRS - Service water heaters, low pressure steam gen. | 2.16 | 2.63 | 0.01 | 0.01 | 0.02 | 0.14 |
| IEUHTRS - Space heaters, Air Make-Up Units | 8.31 | 9.90 | 0.05 | 0.04 | 0.06 | 0.54 |
| **Total Potential Emissions** | 867.85 | 415.46 | 101.27 | 101.25 | 72.75 | 72.76 |

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**Facility Wide PTE**
**ROP Renewal Application**

| | $CO_2$ TPY | $CH_4$ TPY | $N_2O$ TPY | $CO_2e$ TPY |
|---|---|---|---|---|
| ***Potential Emissions*** | | | | |
| EUTOH-WOOD - Geka Thermal Oil Heater, fired with wood and bark | 54,355 | 4.17 | 2.09 | 55,081 |
| EUTOH-NG - Geka Thermal Oil Heater, fired with natural gas | 12,299 | 0.23 | 0.02 | 12,311.46 |
| FGDRYERS - Wood flake dryers controlled by wet ESP and RTO | 135,887 | 10.43 | 5.22 | 137,701.57 |
| EUPRESS - Board Press with RCO/RTO | 5,637 | 0.11 | 0.01 | 5,642.75 |
| FGBH1 through FGBH8 - See Baghouse Operation Summary | - | - | - | - |
| FGFINISHOVENS - Panel and Lap Line Ovens | 14,144 | 0.27 | 0.03 | 14,158.18 |
| FGCIRICEMACT - Compression ignition emergency engines | 28 | 0.00 | 0.00 | 28.12 |
| FGSIRICEMACT - Spark ignition emergency engines | 5 | 0.04 | 0.00 | 5.84 |
| EUPRIMER - Finishing Line Primer Application | - | - | - | - |
| IEUBLRS - Service water heaters, low pressure steam gen. | 3,075 | 0.06 | 0.01 | 3,078 |
| IEUHTRS - Space heaters, Air Make-Up Units | 11,810 | 0.22 | 0.02 | 11,822 |
| **Total Potential Emissions** | 237,238 | 15.53 | 7.39 | 239,828 |

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**Facility Wide PTE**
**ROP Renewal Application**

| Potential HAP Emissions (TPY) | EUTOH-WOOD | EUTOH-NG | FGDRYERS | EUPRESS | FGBH1 through FGBH8 | FGFINISHOVENS | FGCIRICEMACT | FGSIRICEMACT | EUPRIMER | IEUBLRS | IEUHTRS | Total Individual HAP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | - | - | - | - | - | - | - | - | - | - | - | - |
| 1,1,2-Trichloroethane | - | - | - | - | - | - | - | - | - | - | - | - |
| 1,3 Butadiene | - | - | - | - | - | - | 0.00 | - | - | - | - | 0.00 |
| 1,3-Butadiene | - | - | - | - | - | - | - | - | - | - | - | - |
| 1,3-Dichloropropene | - | - | - | - | - | - | - | - | - | - | - | - |
| 2,2,4-Trimethylpentane | - | - | - | - | - | - | - | - | - | - | - | - |
| 2-Methylnaphthalene | - | - | - | - | - | - | - | - | - | - | - | - |
| Acenaphthene | - | - | - | - | - | - | - | - | - | - | - | - |
| Acenaphthylene | - | - | - | - | - | - | - | - | - | - | - | - |
| Acetaldehyde | - | - | - | - | - | - | 0.00 | - | - | - | - | 0.00 |
| Acrolein | - | - | - | - | - | - | 0.00 | - | - | - | - | 0.00 |
| Arsenic | - | 2.06E-05 | - | 9.45E-06 | - | 2.37E-05 | - | - | - | 0.00 | 0.00 | 0.00 |
| Benzene | - | 2.16E-04 | - | 9.92E-05 | - | 2.49E-04 | 0.00 | - | - | 0.00 | 0.00 | 0.00 |
| Benzo(b)fluoranthene | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo(g,h,i)perylene | - | - | - | - | - | - | - | - | - | - | - | - |
| Benzo€pyrene | - | - | - | - | - | - | - | - | - | - | - | - |
| Beryllium | - | 1.24E-06 | - | 5.67E-07 | - | 1.42E-06 | - | - | - | 0.00 | 0.00 | 0.00 |
| Biphenyl | - | - | - | - | - | - | - | - | - | - | - | - |
| Cadmium | - | 1.13E-04 | - | 5.20E-05 | - | 1.30E-04 | - | - | - | 0.00 | 0.00 | 0.00 |
| Carbon Tetrachloride | - | - | - | - | - | - | - | - | - | - | - | - |
| Chlorobenene | - | - | - | - | - | - | - | - | - | - | - | - |
| Chloroform | - | - | - | - | - | - | - | - | - | - | - | - |
| Chromium | - | 1.44E-04 | - | 6.61E-05 | - | 1.66E-04 | - | - | - | 0.00 | 0.00 | 0.00 |
| Chrysene | - | - | - | - | - | - | - | - | - | - | - | - |
| Cobalt | - | 8.66E-06 | - | 3.97E-06 | - | 9.96E-06 | - | - | - | 0.00 | 0.00 | 0.00 |
| Dichlorobenzene | - | 1.24E-04 | - | 5.67E-05 | - | 1.42E-04 | - | - | - | 0.00 | 0.00 | 0.00 |
| Ehtylene Dibromide | - | - | - | - | - | - | - | - | - | - | - | - |
| Ethylbenzene | - | - | - | - | - | - | - | - | - | - | - | - |
| Fluoranthene | - | - | - | - | - | - | - | - | - | - | - | - |
| Fluorene | - | - | - | - | - | - | - | - | - | - | - | - |
| Formaldehyde | - | 7.73E-03 | 2.98E+01 | 2.59E+01 | - | 8.89E-03 | 0.00 | - | - | 0.00 | 0.01 | 55.70 |
| Hydrogen Chloride | 5.78E+00 | - | - | - | - | - | - | - | - | - | - | 5.78 |
| Manganese | - | 3.92E-05 | - | 1.79E-05 | - | 4.50E-05 | - | - | - | 0.00 | 0.00 | 0.00 |
| Mercury | 1.50E-03 | 2.68E-05 | - | 1.23E-05 | - | 3.08E-05 | - | - | - | 0.00 | 0.00 | 0.00 |
| Methanol | - | - | - | - | - | - | - | - | - | - | - | - |
| Methylene Chloride | - | - | - | - | - | - | - | - | - | - | - | - |
| Naphthalene | - | 6.29E-05 | - | 2.88E-05 | - | 7.23E-05 | 0.00 | - | - | 0.00 | 0.00 | 0.00 |
| n-Hexane | - | 1.86E-01 | - | 8.50E-02 | - | 2.13E-01 | - | - | - | 0.05 | 0.18 | 0.71 |
| Nickel | - | 2.16E-04 | - | 9.92E-05 | - | 2.49E-04 | - | - | - | 0.00 | 0.00 | 0.00 |
| PAH | - | - | - | - | - | - | 0.00 | - | - | - | - | 0.00 |
| Phenanthrene | - | - | - | - | - | - | - | - | - | - | - | - |
| Phenol | - | - | - | - | - | - | - | - | - | - | - | - |
| Polycyclic Organic Matter | - | 9.09E-06 | - | 4.17E-06 | - | 1.05E-05 | - | - | - | 0.00 | 0.00 | 0.00 |
| Pyrene | - | - | - | - | - | - | - | - | - | - | - | - |
| Selenium | - | 2.47E-06 | - | 1.13E-06 | - | 2.84E-06 | - | - | - | 0.00 | 0.00 | 0.00 |
| Styrene | - | - | - | - | - | - | - | - | - | - | - | - |
| Tetrachloroethane | - | - | - | - | - | - | - | - | - | - | - | - |
| Toluene | - | 3.50E-04 | - | 1.61E-04 | - | 4.03E-04 | 0.00 | - | - | 0.00 | 0.00 | 0.00 |
| Vinyl Chloride | - | - | - | - | - | - | - | - | - | - | - | - |
| Xylene | - | - | - | - | - | - | - | - | - | - | - | - |
| Zylenes | - | - | - | - | - | - | 0.00 | - | - | - | - | 0.00 |

**Total Potential HAP Emissions** 62.20
**Maximum Single HAP** 55.70 Formaldehyde

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**ROP Renewal Application**
**Thermal Oil Heater (EUTOH-NG/EUTOH-WOOD)**

| Throughput | Units | Fuel |
|---|---|---|
| 30,660 | ton dry fuel/yr | Wood |
| 1,020 | Natural gas HHV | Btu/scf |
| 0.024 | $10^6$ scf/hr | NG |
| 8,760 | hr/yr | |
| 60 | MMBtu/hr | Wood |
| 24 | MMBtu/hr | NG |

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**ROP Renewal Application**
**Thermal Oil Heater (EUTOH-WOOD)**

| CAP | Emissions (tpy) | Emissions (lbs/hr) | Emission Factor | Units | Basis |
|---|---|---|---|---|---|
| **CO** | 125.27 | 28.60 | | | MI-ROP-N1315-2018 |
| **NOx** | 73.58 | 16.80 | | | MI-ROP-N1315-2018 |
| **$PM_{10}$** | 50.59 | 11.55 | | | MI-ROP-N1315-2018 |
| **$PM_{2.5}$** | 50.59 | 11.55 | | | MI-ROP-N1315-2018 |
| **$SO_2$** | 6.57 | 1.50 | 0.025 | lb/MMBtu | AP-42, Table 1.6-2 |
| **VOC** | 2.19 | 0.50 | | | MI-ROP-N1315-2018 |
| | | | | | |
| **GHG** | **Emissions (tpy)** | **Emissions (lbs/hr)** | **Emission Factor** | **Units** | **Basis** |
| **$CO_2$** | 54,355 | 12409.74 | 93.8 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-1 |
| **$CH_4$** | 4.17 | 0.95 | 7.20E-03 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-2 |
| **$N_2O$** | 2.09 | 0.48 | 3.60E-03 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-2 |
| **$CO_2e$** | 55,080.63 | 12575.49 | | | GWP for $CO_2$, $CH_4$ and $N_2O$ are 1, 25 and 298 respectively |
| | | | | | |
| **HAP - ETOH-Wood** | **Emissions (tpy)** | **Emissions (lbs/hr)** | **Emission Factor** | **Units** | **Basis** |
| **Arsenic** | | | | | |
| **Benzene** | | | | | |
| **Beryllium** | | | | | |
| **Cadmium** | | | | | |
| **Chromium** | | | | | |
| **Cobalt** | | | | | |
| **Dichlorobenzene** | | | | | |
| **Formaldehyde** | | | | | |
| **Hydrogen Chloride** | 5.78 | 1.32 | 2.20E-02 | lb/MMBtu | Subpart DDDDD Limit |
| **n-Hexane** | | | | | |
| **Manganese** | | | | | |
| **Mercury** | 1.50E-03 | 3.42E-04 | 5.70E-06 | lb/MMBtu | Subpart DDDDD Limit |
| **Naphthalene** | | | | | |
| **Nickel** | | | | | |
| **Polycyclic Organic Matter** | | | | | |
| **Selenium** | | | | | |
| **Toluene** | | | | | |

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**ROP Renewal Application**
**Thermal Oil Heater (EUTOH-NG)**

| CAP | Emissions (tpy) | Emissions (lbs/hr) | Emission Factor | Units | Basis |
|---|---|---|---|---|---|
| **CO** | 8.67 | 1.98 | | | MI-ROP-N1315-2018 |
| **NOx** | 12.40 | 2.83 | | | MI-ROP-N1315-2018 |
| **$PM_{10}$** | 0.74 | 0.17 | | | MI-ROP-N1315-2018 |
| **$PM_{2.5}$** | 0.74 | 0.17 | | | Assumed equal to PM10 |
| **$SO_2$** | 63.07 | 14.40 | 0.6 | lb/MMBtu | AP-42, Table 1.4-2 |
| **VOC** | 0.57 | 0.13 | | | MI-ROP-N1315-2018 |
| | | | | | |
| **GHG** | **Emissions (tpy)** | **Emissions (lbs/hr)** | **Emission Factor** | **Units** | **Basis** |
| **$CO_2$** | 12,299 | 2807.94 | 53.06 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-1 |
| **$CH_4$** | 0.23 | 0.05 | 1.00E-03 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-2 |
| **$N_2O$** | 0.02 | 0.01 | 1.00E-04 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-2 |
| **$CO_2e$** | 12,311.46 | 2810.84 | | | GWP for $CO_2$, $CH_4$ and $N_2O$ are 1, 25 and 298 respectively |
| | | | | | |
| **HAP - ETOH-Wood** | **Emissions (tpy)** | **Emissions (lbs/hr)** | **Emission Factor** | **Units** | **Basis** |
| **Arsenic** | 2.06E-05 | 4.71E-06 | 0.0002 | lb/106 scf | AP-42, Table 1.4-4 |
| **Benzene** | 2.16E-04 | 4.94E-05 | 0.0021 | lb/106 scf | AP-42, Table 1.4-3 |
| **Beryllium** | 1.24E-06 | 2.82E-07 | 0.000012 | lb/106 scf | AP-42, Table 1.4-4 |
| **Cadmium** | 1.13E-04 | 2.59E-05 | 0.0011 | lb/106 scf | AP-42, Table 1.4-4 |
| **Chromium** | 1.44E-04 | 3.29E-05 | 0.0014 | lb/106 scf | AP-42, Table 1.4-4 |
| **Cobalt** | 8.66E-06 | 1.98E-06 | 0.000084 | lb/106 scf | AP-42, Table 1.4-4 |
| **Dichlorobenzene** | 1.24E-04 | 2.82E-05 | 0.0012 | lb/106 scf | AP-42, Table 1.4-3 |
| **Formaldehyde** | 0.01 | 0.00 | 0.075 | lb/106 scf | AP-42, Table 1.4-3 |
| **n-Hexane** | 1.86E-01 | 4.24E-02 | 1.8 | lb/106 scf | AP-42, Table 1.4-3 |
| **Manganese** | 3.92E-05 | 8.94E-06 | 0.00038 | lb/106 scf | AP-42, Table 1.4-4 |
| **Mercury** | 2.68E-05 | 6.12E-06 | 2.60E-04 | lb/106 scf | AP-42, Table 1.4-4 |
| **Naphthalene** | 6.29E-05 | 1.44E-05 | 0.00061 | lb/106 scf | AP-42, Table 1.4-3 |
| **Nickel** | 2.16E-04 | 4.94E-05 | 0.0021 | lb/106 scf | AP-42, Table 1.4-4 |
| **Polycyclic Organic Matter** | 9.09E-06 | 2.08E-06 | 0.0000882 | lb/106 scf | AP-42, Table 1.4-3 |
| **Selenium** | 2.47E-06 | 5.65E-07 | 0.000024 | lb/106 scf | AP-42, Table 1.4-4 |
| **Toluene** | 3.50E-04 | 8.00E-05 | 0.0034 | lb/106 scf | AP-42, Table 1.4-3 |

Nots:
1. Stack Testing performed in September 2020 on Hayward Lines 1 and 2
2. NCASI formaldehyde emission factor is from 2013 update, for batch press, MDI and controlled process. Accounts for formaldehyde present in the paper overlay

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**ROP Renewal Application**
**Flake Dryers (FGDRYERS)**

| CAP | Emissions (tpy) | Emissions (lbs/hr) | Emission Factor | Units | Basis |
|---|---|---|---|---|---|
| **CO** | 225.68 | 51.53 | 3.640 | lb/TFP Hardwood | MI-ROP-N1315-2018 |
| **CO** | 408.27 | 93.21 | 4.390 | lb/TFP Softwood | MI-ROP-N1315-2018 |
| **CO** | 633.95 | 144.74 | | | Total based on combined material throughput limit |
| **NOx** | 38.44 | 8.78 | 0.620 | lb/TFP Hardwood | MI-ROP-N1315-2018 |
| **NOx** | 115.32 | 26.33 | 1.240 | lb/TFP Softwood | MI-ROP-N1315-2018 |
| **NOx** | 153.76 | 35.11 | | | Total based on combined material throughput limit |
| **$PM_{10}$** | 23.54 | 10.00 | 0.007 | gr/dscf | MI-ROP-N1315-2018 |
| **$PM_{2.5}$** | 23.54 | 10.00 | 0.007 | gr/dscf | MI-ROP-N1315-2018 |
| **$SO_2$** | 2.79 | 0.64 | 0.018 | lb/TFP | 2021 MAERS |
| **VOC** | 17.98 | 4.11 | 0.290 | lb/TFP Hardwood | MI-ROP-N1315-2018 |
| **VOC** | 34.41 | 7.86 | 0.370 | lb/TFP Softwood | MI-ROP-N1315-2018 |
| **VOC** | 52.39 | 11.96 | | | Total based on combined material throughput limit |

| GHG | Emissions (tpy) | Emissions (lbs/hr) | Emission Factor | Units | Basis |
|---|---|---|---|---|---|
| **$CO_2$** | 135,887 | 31024.35 | 93.8 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-1 |
| **$CH_4$** | 10 | 2.38 | 0.0072 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-2 |
| **$N_2O$** | 5 | 1.19 | 0.0036 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-2 |
| **$CO_2e$** | 137,701.57 | 31438.71 | | | GWP for $CO_2$, $CH_4$ and $N_2O$ are 1, 25 and 298 respectively |

| HAP - Press | Emissions (tpy) | Emissions (lbs/hr) | Emission Factor | Units | Basis |
|---|---|---|---|---|---|
| **Arsenic** | | | | | |
| **Benzene** | | | | | |
| **Beryllium** | | | | | |
| **Cadmium** | | | | | |
| **Chromium** | | | | | |
| **Cobalt** | | | | | |
| **Dichlorobenzene** | | | | | |
| **Formaldehyde** | 29.78 | 6.80 | | | MI-ROP-N1315-2018 |
| **n-Hexane** | | | | | |
| **Manganese** | | | | | |
| **Mercury** | | | | | |
| **Naphthalene** | | | | | |
| **Nickel** | | | | | |
| **Polycyclic Organic Matter** | | | | | |
| **Selenium** | | | | | |
| **Toluene** | | | | | |

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**ROP Renewal Application**
**Board Press with RCO/RTO (EUPRESS)**

| Throughput | Units |
|---|---|
| 310,000 | TFP/yr |
| 385,440 | MSF/yr |
| 44 | MSF/hr |
| 8,760 | hr/yr |
| 11 | MMBtu/hr |

Note: Maximum auxiliary fuel (natural gas) heat input during operation is 11 MMBtu/hr

**Emission Factor Basis - LP Mill that Produces Similar Type of Product**

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**Hayward - Press Line 1 - 09/24/2020**

| | Test Results | Units | Factor | Units | | | |
|---|---|---|---|---|---|---|---|
| PM, Filterable | | 0.95 lb/hr | 0.048 | lb/TFP | PM, Primary | 0.95 | lb/hr |
| NOx | | 0.9 lb/hr | 0.046 | lb/TFP | PM, Filterable | 0.35 | lb/hr |
| CO | | 2.4 lb/hr | 0.122 | lb/TFP | | | |
| VOC | | 1.06 lb/hr | 0.054 | lb/TFP | | | |
| Production | | 19.72 TFP/hr | | | | | |
| | | 36.6 MSF/hr | | | | | |

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**Hayward - Press Line 2 - 09/23/2020**

| | Test Results | Units | Factor | Units | | | |
|---|---|---|---|---|---|---|---|
| PM, Filterable | | 0.68 lb/hr | 0.034 | lb/TFP | PM, Primary | 0.68 | lb/hr |
| NOx | | 0.8 lb/hr | 0.040 | lb/TFP | PM, Filterable | 0.33 | lb/hr |
| CO | | 1.2 lb/hr | 0.060 | lb/TFP | | | |
| VOC | | 0.91 lb/hr | 0.045 | lb/TFP | | | |
| Production | | 20.01 TFP/hr | | | | | |
| | | 31.00 MSF/hr | | | | | |

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**ROP Renewal Application**
**Potential Emission Calculations - Board Press with RCO/RTO (EUPRESS)**

| CAP | Emissions (tpy) | Emissions (lbs/hr) | Emission Factor | Units | Basis |
|---|---|---|---|---|---|
| **CO** | 79.05 | 18.05 | 0.510 | lb/TFP | PTI 24-22A |
| **NOx** | 155.00 | 43.00 | | | PTI 24-22A |
| **$PM_{10}$** | 11.16 | 2.00 | 0.072 | lb/TFP | PTI 24-22A (lb/hr); Stack Test |
| **$PM_{2.5}$** | 11.16 | 2.00 | 0.072 | lb/TFP | PTI 24-22A (lb/hr); Stack Test |
| **$SO_2$** | 0.03 | 0.01 | 0.6 | $lb/10^6$ scf | AP-42, Table 1.4-2 |
| **VOC** | 12.40 | 3.44 | 0.050 | lb/TFP | PTI 24-22A |
| | | | | | |
| **GHG** | **Emissions (tpy)** | **Emissions (lbs/hr)** | **Emission Factor** | **Units** | **Basis** |
| **$CO_2$** | 5,637 | 1286.97 | 53.06 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-1 |
| **$CH_4$** | 0.11 | 0.02 | 0.001 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-2 |
| **$N_2O$** | 0.01 | 0.00 | 0.0001 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-2 |
| **$CO_2e$** | 5,642.75 | 1288.30 | | | GWP for $CO_2$, $CH_4$ and $N_2O$ are 1, 25 and 298 respectively |
| | | | | | |
| **HAP - Press** | **Emissions (tpy)** | **Emissions (lbs/hr)** | **Emission Factor** | **Units** | **Basis** |
| **Arsenic** | | | | | |
| **Benzene** | | | | | |
| **Beryllium** | | | | | |
| **Cadmium** | | | | | |
| **Chromium** | | | | | |
| **Cobalt** | | | | | |
| **Dichlorobenzene** | | | | | |
| **Formaldehyde** | 25.89 | 5.91 | | | PTI 24-22A |
| **n-Hexane** | | | | | |
| **Manganese** | | | | | |
| **Mercury** | | | | | |
| **Naphthalene** | | | | | |
| **Nickel** | | | | | |
| **Polycyclic Organic Matter** | | | | | |
| **Selenium** | | | | | |
| **Toluene** | | | | | |

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**ROP Renewal Application**
**Potential Emission Calculations - Board Press with RCO/RTO (EUPRESS)**

| HAP - RCO/RTO | Emissions (tpy) | Emission Factor | Units | Basis |
|---|---|---|---|---|
| **Arsenic** | 9.45E-06 | 2.00E-04 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Benzene** | 9.92E-05 | 2.10E-03 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Beryllium** | 5.67E-07 | 1.20E-05 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Cadmium** | 5.20E-05 | 1.10E-03 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Chromium** | 6.61E-05 | 1.40E-03 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Cobalt** | 3.97E-06 | 8.40E-05 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Dichlorobenzene** | 5.67E-05 | 1.20E-03 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Formaldehyde** | 3.54E-03 | 7.50E-02 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **n-Hexane** | 8.50E-02 | 1.80E+00 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Manganese** | 1.79E-05 | 3.80E-04 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Mercury** | 1.23E-05 | 2.60E-04 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Naphthalene** | 2.88E-05 | 6.10E-04 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Nickel** | 9.92E-05 | 2.10E-03 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Polycyclic Organic Matter** | 4.17E-06 | 8.82E-05 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Selenium** | 1.13E-06 | 2.40E-05 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Toluene** | 1.61E-04 | 3.40E-03 | lb/$10^6$ scf | AP-42, Table 1.4-3 |

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**ROP Renewal Application**
**Potential Emission Calculations - Process Operations and Baghouses**

| Flexible Group ID | Emission Unit ID | Stack ID | Control Device | Value[1] | Units | Maximum Air Flow, cfm[3] | PM Emissions (lbs/hr) | PM Emissions (tpy)[2] |
|---|---|---|---|---|---|---|---|---|
| FGBH1 | EUSCREENS, FGBH2, FGBH4, FGBH7, FGLAIDIG | SVBH1 | BH1 | 0.001 | gr/dscf | 45,000 | 0.39 | 1.69 |
| FGBH2 | EUFORMING | SVBH2 | BH2 | 0.001 | gr/dscf | 42,000 | 0.36 | 1.58 |
| FGBH3 | EUPULVERIZING1, EUPULVERIZING2, FGLAIDIG | SVBH3 | BH3 | 0.001 | gr/dscf | 25,000 | 0.21 | 0.94 |
| FGBH4 | EUSAWLINE | SVBH4 | BH4 | 0.001 | gr/dscf | 45,000 | 0.39 | 1.69 |
| FGBH5 | EUOVERFINES, FGBH4, FGBH6, FGBH7 | SVBH5 | BH5 | 0.001 | gr/dscf | 55,000 | 0.47 | 2.06 |
| FGBH6 | EUPANELLINE, EULAPLINE1, EULAPLINE2 | SVBH6 | BH6 | 0.001 | gr/dscf | 47,000 | 0.51 | 2.23 |
| FGBH7 | EUTGPATTERN, EUSANDER | SVBH7 | BH7 | 0.001 | gr/dscf | 45,000 | 0.39 | 1.69 |
| FGBH8 | EUHOG, EUVSLINE | SVBH8 | BH8 | 0.001 | gr/dscf | 55,000 | 0.47 | 2.06 |
| **Total PM Emissions** | | | | | | | **3.18** | **13.95** |

Production Capacity: 44 MSF/hr siding 3/8" basis
385,440 MSF/yr at 8,760 hrs/yr
250,000 TFP/yr[5]

VOC Emission Factor[4] 0.019 lb/MSF
**VOC Emissions[6] 0.84 lbs/hr**
**3.66 tpy**

Notes:

1. Baghouse outlet grain loading spec provided by baghouse/bag filter supplier, 0.001 gr/dscf = 0.002 lb/1,000 lbs of air
2. Annual PM emissions based on 8,760 hrs/yr. PM assumed to be equal to PM10 and PM2.5.
3. Nominal air flow volume (cfm) at building ambient temperature and moisture; worst case assumed equal to dscfm.
4. VOC EF from NCASI Wood Products Database, 2013 Update, 1826-Misc. Unit, Misc Wood Handling, Hardwood. Total VOC emissions for the group of baghouse systems.
5. 1.55 MSF siding 3/8" basis per TFP
6. Combined VOC emissions for FGBH1 through FGBH8

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**ROP Renewal Application**
**Potential Emission Calculations - Lap-X Transfer Ovens, Panel Endo Oven and Lap Endo Ovens**

| Flexible Emission Group - FGFINISHOVENS | Oven Heat Input (MMBtu/hr) | Number of Ovens |
|---|---|---|
| Panel Line Oven (EUPANELOV) | 5.0 | 1 |
| Lap Oven Nos. 1 and 2 (EULAP1OV and 2OV) | 5.0 | 2 |
| Lap-X Transfer Oven Nos. 1 and 2 (EULAP1XOV and 2XOV) | 6.3 | 2 |
| | | Units |
| Total Maximum Heat Input Capacity | 27.6 | MMBtu/hr |
| Natural Gas HHV | 1,020 | Btu/scf |
| Maximum Hourly Natural Gas Usage | 27,059 | scf/hr |
| Maximum Annual Natural Gas Usage | 237.04 | $10^6$ scf/yr |
| Hours of Operation | 8,760 | hr/yr |

Notes:

1. The NOx emission factor is for typical low NOx burners.

| CAP | Emissions (tpy) | Emission Factor | Units | Basis |
|---|---|---|---|---|
| **CO** | 9.96 | 84 | lb/$10^6$ scf | AP-42, Table 1.4-1 |
| **NOx** | 6.04 | 0.05 | lb/MMBtu | Industry Standard for low NOx burners[1] |
| **$PM_{10}$** | 0.06 | 0.52 | lb/$10^6$ scf | EPA spreadsheet "Final table with Natural Gas Adjustment factors Nov 21 2006.xls |
| **$PM_{2.5}$** | 0.05 | 0.43 | lb/$10^6$ scf | EPA spreadsheet "Final table with Natural Gas Adjustment factors Nov 21 2006.xls |
| **$SO_2$** | 0.07 | 0.6 | lb/$10^6$ scf | AP-42, Table 1.4-2 |
| **VOC** | 0.65 | 5.5 | lb/$10^6$ scf | AP-42, Table 1.4-2 |

| GHG | Emissions (tpy) | Emission Factor | Units | Basis |
|---|---|---|---|---|
| **$CO_2$** | 14,144 | 53.06 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-1 |
| **$CH_4$** | 0.27 | 0.001 | kg/MMBtu | 41 CFR 98, Subpart C, Table C-2 |
| **$N_2O$** | 0.03 | 0.0001 | kg/MMBtu | 42 CFR 98, Subpart C, Table C-2 |
| **$CO_2e$** | 14,158.18 | | | GWP for $CO_2$, $CH_4$ and $N_2O$ are 1, 25 and 298 respectively |

| HAP | Emissions (tpy) | Emission Factor | Units | Basis |
|---|---|---|---|---|
| **Arsenic** | 2.37E-05 | 0.0002 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Benzene** | 2.49E-04 | 0.0021 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Beryllium** | 1.42E-06 | 0.000012 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Cadmium** | 1.30E-04 | 0.0011 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Chromium** | 1.66E-04 | 0.0014 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Cobalt** | 9.96E-06 | 0.000084 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Dichlorobenzene** | 1.42E-04 | 0.0012 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Formaldehyde** | 8.89E-03 | 0.075 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **n-Hexane** | 2.13E-01 | 1.8 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Manganese** | 4.50E-05 | 0.00038 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Mercury** | 3.08E-05 | 0.00026 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Naphthalene** | 7.23E-05 | 0.00061 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Nickel** | 2.49E-04 | 0.0021 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Polycyclic Organic Matter** | 1.05E-05 | 0.0000882 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Selenium** | 2.84E-06 | 0.000024 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Toluene** | 4.03E-04 | 0.0034 | lb/$10^6$ scf | AP-42, Table 1.4-3 |

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**ROP Renewal Application**
**Potential Emission Calculations - Emergency Engines**

| RICE MACT Subject CI Engines (FGCIRICEMACT) | Heater, Air Unit Heat Input (Hp) | Number of Heaters |
|---|---|---|
| EUFIREPUMP | 40.0 | 1 |
| EUTODIESEL | 235.0 | 1 |
| | | Units |
| Total Capacity | 275.00 | Hp |
| Potential Operating Schedule | 500 | hr/yr |
| Total Energy | 344 | MMBtu/yr |

| CAP | Emissions (tpy) | Emission Factor | Units | Basis |
|---|---|---|---|---|
| **CO** | 0.46 | 0.00668 | lb/Hp-hr | AP-42, Table 3.3-1 |
| **NOx** | 2.13 | 0.031 | lb/Hp-hr | AP-42, Table 3.3-1 |
| **$PM_{10}$** | 0.15 | 0.0022 | lb/Hp-hr | AP-42, Table 3.3-1 |
| **$PM_{2.5}$** | 0.15 | 0.0022 | lb/Hp-hr | AP-42, Table 3.3-1 |
| **$SO_2$** | 0.14 | 0.00205 | lb/Hp-hr | AP-42, Table 3.3-1 |
| **VOC** | 0.17 | 0.00247 | lb/Hp-hr | AP-42, Table 3.3-1 |
| | | | | |
| **GHG** | **Emissions (tpy)** | **Emission Factor** | **Units** | **Basis** |
| **$CO_2$** | 28 | 73.96 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-1 |
| **$CH_4$** | 0.00 | 3.00E-03 | kg/MMBtu | 41 CFR 98, Subpart C, Table C-2 |
| **$N_2O$** | 0.00 | 6.00E-04 | kg/MMBtu | 42 CFR 98, Subpart C, Table C-2 |
| **$CO_2e$** | 28.12 | | | GWP for $CO_2$, $CH_4$ and $N_2O$ are 1, 25 and 298 respectively |
| | | | | |
| **HAP** | **Emissions (tpy)** | **Emission Factor** | **Units** | **Basis** |
| **Benzene** | 1.60E-04 | 9.33E-04 | lb/MMBtu | AP-42, Table 3.3-2 |
| **Toluene** | 7.03E-05 | 4.09E-04 | lb/MMBtu | AP-42, Table 3.3-2 |
| **Zylenes** | 4.90E-05 | 2.85E-04 | lb/MMBtu | AP-42, Table 3.3-2 |
| **1,3 Butadiene** | 6.72E-06 | 3.91E-05 | lb/MMBtu | AP-42, Table 3.3-2 |
| **Formaldehyde** | 2.03E-04 | 1.18E-03 | lb/MMBtu | AP-42, Table 3.3-2 |
| **Acetaldehyde** | 1.32E-04 | 7.67E-04 | lb/MMBtu | AP-42, Table 3.3-2 |
| **Acrolein** | 1.59E-05 | 9.25E-05 | lb/MMBtu | AP-42, Table 3.3-2 |
| **PAH** | 2.89E-05 | 1.68E-04 | lb/MMBtu | AP-42, Table 3.3-2 |
| **Naphthalene** | 1.46E-05 | 8.48E-05 | lb/MMBtu | AP-42, Table 3.3-2 |

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**ROP Renewal Application**
**Potential Emission Calculations - Emergency Engines**

| RICE MACT Subject SI Engines (FGSIRICEMACT) | Heater, Air Unit Heat Input (Hp) | Number of Heaters |
|---|---|---|
| EUDRYER1BACKUP | 16.0 | 1 |
| EUDRYER2BACKUP | 16.0 | 1 |
| EUDRYER3BACKUP | 16.0 | 1 |
| | | Units |
| Total Capacity | 48.00 | Hp |
| Potential Operating Schedule | 500 | hr/yr |
| Total Energy | 60 | MMBtu/yr |

| CAP | Emissions (tpy) | Emission Factor | Units | Basis |
|---|---|---|---|---|
| **CO** | 0.02 | 5.57E-01 | lb/MMBtu | AP-42, Table 3.2-1 (max factor) |
| **NOx** | 0.03 | 8.47E-01 | lb/MMBtu | AP-42, Table 3.2-1 (max factor) |
| **$PM_{10}$** | 0.00 | 7.71E-05 | lb/MMBtu | AP-42, Table 3.2-1 |
| **$PM_{2.5}$** | 0.00 | 7.71E-05 | lb/MMBtu | AP-42, Table 3.2-1 |
| **$SO_2$** | 0.00 | 5.88E-04 | lb/MMBtu | AP-42, Table 3.2-1 |
| **VOC** | 0.04 | 1.47 | lb/MMBtu | AP-42, Table 3.2-1 |
| | | | | |
| **GHG** | **Emissions (tpy)** | **Emission Factor** | **Units** | **Basis** |
| **$CO_2$** | 5 | 73.96 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-1 |
| **$CH_4$** | 0.04 | 1.25E+00 | lb/MMBtu | AP-42, Table 3.2-1 |
| **$N_2O$** | 0.00 | 6.00E-04 | kg/MMBtu | 42 CFR 98, Subpart C, Table C-2 |
| **$CO_2e$** | 5.84 | | | GWP for $CO_2$, $CH_4$ and $N_2O$ are 1, 25 and 298 respectively |
| | | | | |
| **HAP** | **Emissions (tpy)** | **Emission Factor** | **Units** | **Basis** |
| **1,1,2,2-Tetrachloroethane** | 1.20E-06 | 4.00E-05 | lb/MMBtu | AP-42, Table 3.2-2 |
| **1,1,2-Trichloroethane** | 9.54E-07 | 3.18E-05 | lb/MMBtu | AP-42, Table 3.3-2 |
| **1,3-Butadiene** | 8.01E-06 | 2.67E-04 | lb/MMBtu | AP-42, Table 3.3-2 |
| **1,3-Dichloropropene** | 7.92E-07 | 2.64E-05 | lb/MMBtu | AP-42, Table 3.3-2 |
| **2-Methylnaphthalene** | 9.96E-07 | 3.32E-05 | lb/MMBtu | AP-42, Table 3.3-2 |
| **2,2,4-Trimethylpentane** | 7.50E-06 | 2.50E-04 | lb/MMBtu | AP-42, Table 3.3-2 |
| **Acenaphthene** | 3.75E-08 | 1.25E-06 | lb/MMBtu | AP-42, Table 3.3-2 |
| **Acenaphthylene** | 1.66E-07 | 5.53E-06 | lb/MMBtu | AP-42, Table 3.3-2 |
| **Acetaldehyde** | 2.51E-04 | 8.36E-03 | lb/MMBtu | AP-42, Table 3.3-2 |
| **Acrolein** | 1.54E-04 | 5.14E-03 | lb/MMBtu | AP-42, Table 3.3-2 |
| **Benzene** | 1.32E-05 | 4.40E-04 | lb/MMBtu | AP-42, Table 3.3-2 |
| **Benzo(b)fluoranthene** | 4.98E-09 | 1.66E-07 | lb/MMBtu | AP-42, Table 3.3-2 |
| **Benzo€pyrene** | 1.25E-08 | 4.15E-07 | lb/MMBtu | AP-42, Table 3.3-2 |
| **Benzo(g,h,i)perylene** | 1.24E-08 | 4.14E-07 | lb/MMBtu | AP-42, Table 3.3-2 |
| **Biphenyl** | 6.60E-06 | 2.20E-04 | lb/MMBtu | AP-42, Table 3.3-2 |
| **Carbon Tetrachloride** | 1.10E-06 | 3.67E-05 | lb/MMBtu | AP-42, Table 3.3-2 |

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**ROP Renewal Application**
**Potential Emission Calculations - Finishing Line Primer Application (EUPRIMER)**

| Finishing Line Primer Application - EUPRIMER | Value | Units |
|---|---|---|
| Total LKB0664 Usage[1,2,3] | 346,900 | gal/yr[6] |
| LKB0664 applied by high pressure spray | 346,900 | gal/yr |
| Solids Content LKB0664 | 4.88 | lb/gal |
| Transfer Efficiency[4] | 88.0 | % |
| Control Efficiency - overspray filters and no direct exhaust to the ambient air | 99.0 | %[7] |

| Controlled Emission Factors - Calculated[5] | Value | Units |
|---|---|---|
| $PM_{10}$ - LKB0664 | 0.005856 | lb/gal |
| $PM_{2.5}$ - LKB0664 | 0.005856 | lb/gal |

| LKB0664 | Emissions (tpy)[7] | Emission Factor | Units | Basis |
|---|---|---|---|---|
| **CO** | - | - | | |
| **NOx** | - | - | | |
| **$PM_{10}$** | 1.02 | 0.005856 | lb/gal | SDS |
| **$PM_{2.5}$** | 1.02 | 0.005856 | lb/gal | SDS |
| **$SO_2$** | - | - | | |
| **VOC** | - | - | | |
| **Total HAP** | - | - | | |

Notes:

1. No PM emissions result from primer applied by fan coater. PM emissions result from primer applied by high pressure spray only.
2. LKB0664 applied by high pressure spray is the worst case scenario
3. LKB0664 does not contain VOC components or HAPs
4. Transfer efficiency in spray booths is based on mass balance of similar operation in another LP mill.
5. Controlled emission factors for $PM_{10}$ and $PM_{2.5}$ from applying primer LKB0664 is based on the solids content in primer, transfer efficiency and control efficiency in booths.
6. Primer use factor = 0.9 gal/MSF
7. Source not directly exhausted to the ambient air. Emissions contained within the building. Emissions included in project totals as worst case only. 100 percent reduction is anticipated

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**ROP Renewal Application**
**Potential Emission Calculations - Plate Wash Boiler and Unloading Boilers**

| Permit-Exempt Heaters (IEUBLRS) | Boiler Heat Input (MMBtu/hr) | Number of Boilers |
|---|---|---|
| Plate Wash Service Water Heater | 2.0 | 1 |
| Unloading Low-Pressure Steam Generators | 2.0 | 2 |
| | | Units |
| Total Maximum Heat Input Capacity | 6.0 | MMBtu/hr |
| Natural Gas HHV | 1,020 | Btu/scf |
| Maximum Hourly Natural Gas Usage | 5,882 | scf/hr |
| Maximum Annual Natural Gas Usage | 51.53 | $10^6$ scf/yr |
| Hours of Operation | 8,760 | hr/yr |

| CAP | Emissions (tpy) | Emission Factor | Units | Basis |
|---|---|---|---|---|
| **CO** | 2.16 | 84 | lb/$10^6$ scf | AP-42, Table 1.4-1 |
| **NOx** | 2.63 | 0.1 | lb/MMBtu | AP-42, Table 1.4-1 |
| **$PM_{10}$** | 0.01 | 0.52 | lb/$10^6$ scf | EPA spreadsheet "Final table with Natural Gas Adjustment factors Nov 21 2006.xls |
| **$PM_{2.5}$** | 0.01 | 0.43 | lb/$10^6$ scf | EPA spreadsheet "Final table with Natural Gas Adjustment factors Nov 21 2006.xls |
| **$SO_2$** | 0.02 | 0.6 | lb/$10^6$ scf | AP-42, Table 1.4-2 |
| **VOC** | 0.14 | 5.5 | lb/$10^6$ scf | AP-42, Table 1.4-2 |
| | | | | |
| **GHG** | **Emissions (tpy)** | **Emission Factor** | **Units** | **Basis** |
| **$CO_2$** | 3,075 | 53.06 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-1 |
| **$CH_4$** | 0.06 | 0.001 | kg/MMBtu | 41 CFR 98, Subpart C, Table C-2 |
| **$N_2O$** | 0.01 | 0.0001 | kg/MMBtu | 42 CFR 98, Subpart C, Table C-2 |
| **$CO_2e$** | 3,077.86 | | | GWP for $CO_2$, $CH_4$ and $N_2O$ are 1, 25 and 298 respectively |
| | | | | |
| **HAP** | **Emissions (tpy)** | **Emission Factor** | **Units** | **Basis** |
| **Arsenic** | 5.15E-06 | 0.0002 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Benzene** | 5.41E-05 | 0.0021 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Beryllium** | 3.09E-07 | 0.000012 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Cadmium** | 2.83E-05 | 0.0011 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Chromium** | 3.61E-05 | 0.0014 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Cobalt** | 2.16E-06 | 0.000084 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Dichlorobenzene** | 3.09E-05 | 0.0012 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Formaldehyde** | 1.93E-03 | 0.075 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **n-Hexane** | 4.64E-02 | 1.8 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Manganese** | 9.79E-06 | 0.00038 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Mercury** | 6.70E-06 | 0.00026 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Naphthalene** | 1.57E-05 | 0.00061 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Nickel** | 5.41E-05 | 0.0021 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Polycyclic Organic Matter** | 2.27E-06 | 0.0000882 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Selenium** | 6.18E-07 | 0.000024 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Toluene** | 8.76E-05 | 0.0034 | lb/$10^6$ scf | AP-42, Table 1.4-3 |

**Louisiana-Pacific Sagola Plant (SRN N1315)**
**ROP Renewal Application**
**Potential Emission Calculations - Heaters and Air Units**

| Permit-Exempt Heaters (IEUHTRS) | Heater, Air Unit Heat Input (MMBtu/hr) | Number of Heaters |
|---|---|---|
| Gas Unit Heater Nos. 1 through 9 | 0.4 | 9 |
| Plate Wash Ceiling Mounted Radient Heaters | 0.2 | 4 |
| Shipping Area Make Up Air Unit Nos. 1 -2 | 7.1 | 2 |
| West Shipping Air Unit No. 1 | 3.8 | 1 |
| West Shipping Air Unit No. 2 | 3.1 | 1 |
| Plate Wash Building Air Turnover Unit | 1.5 | 1 |
| Air Make-Up Units | 3.3 | 3 |
| Air Make-Up Unit | 3.1 | 1 |
| Air Make-Up Units | 5.5 | 2 |
| Air Make-Up Unit | 2.0 | 1 |
| Overhead door heaters Nos. 1 through 10 | 0.3 | 10 |
| Fines Penthouse Air Unit | 7.1 | 1 |
| Fines Hammermill Building Air Unit | 7.1 | 1 |
| Process Exhaust Make Up Air Unit Nos. 1 and 2 | 11.0 | 2 |
| | | **Units** |
| Total Maximum Heat Input Capacity | 92.18 | MMBtu/hr |
| Natural Gas HHV | 1,020 | Btu/scf |
| Maximum Hourly Natural Gas Usage | 0.090376 | $10^6$ scf/hr |
| Maximum Anticipated Capacity Factor | 25 | % |
| Maximum Anticipated Natural Gas Usage | 198 | $10^6$ scf/yr |

| CAP | Emissions (tpy) | Emission Factor | Units | Basis |
|---|---|---|---|---|
| **CO** | 8.31 | 84 | lb/$10^6$ scf | AP-42, Table 1.4-1 |
| **NOx** | 9.90 | 100 | lb/$10^6$ scf | AP-42, Table 1.4-1 |
| **$PM_{10}$** | 0.05 | 0.52 | lb/$10^6$ scf | EPA spreadsheet "Final table with Natural Gas Adjustment factors Nov 21 2006.xls |
| **$PM_{2.5}$** | 0.04 | 0.43 | lb/$10^6$ scf | EPA spreadsheet "Final table with Natural Gas Adjustment factors Nov 21 2006.xls |
| **$SO_2$** | 0.06 | 0.6 | lb/$10^6$ scf | AP-42, Table 1.4-2 |
| **VOC** | 0.54 | 5.5 | lb/$10^6$ scf | AP-42, Table 1.4-2 |
| | | | | |
| **GHG** | **Emissions (tpy)** | **Emission Factor** | **Units** | **Basis** |
| **$CO_2$** | 11,810 | 53.06 | kg/MMBtu | 40 CFR 98, Subpart C, Table C-1 |
| **$CH_4$** | 0.22 | 0.001 | kg/MMBtu | 41 CFR 98, Subpart C, Table C-2 |
| **$N_2O$** | 0.02 | 0.0001 | kg/MMBtu | 42 CFR 98, Subpart C, Table C-2 |
| **$CO_2e$** | 11,822.08 | | | GWP for $CO_2$, $CH_4$ and $N_2O$ are 1, 25 and 298 respectively |
| | | | | |
| **HAP** | **Emissions (tpy)** | **Emission Factor** | **Units** | **Basis** |
| **Arsenic** | 1.98E-05 | 0.0002 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Benzene** | 2.08E-04 | 0.0021 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Beryllium** | 1.19E-06 | 0.000012 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Cadmium** | 1.09E-04 | 0.0011 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Chromium** | 1.39E-04 | 0.0014 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Cobalt** | 8.31E-06 | 0.000084 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Dichlorobenzene** | 1.19E-04 | 0.0012 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Formaldehyde** | 7.42E-03 | 0.075 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **n-Hexane** | 1.78E-01 | 1.8 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Manganese** | 3.76E-05 | 0.00038 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Mercury** | 2.57E-05 | 0.00026 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Naphthalene** | 6.04E-05 | 0.00061 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Nickel** | 2.08E-04 | 0.0021 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Polycyclic Organic Matter** | 8.73E-06 | 0.0000882 | lb/$10^6$ scf | AP-42, Table 1.4-3 |
| **Selenium** | 2.38E-06 | 0.000024 | lb/$10^6$ scf | AP-42, Table 1.4-4 |
| **Toluene** | 3.36E-04 | 0.0034 | lb/$10^6$ scf | AP-42, Table 1.4-3 |

# Attachment 3

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY**
**AIR QUALITY DIVISION**

EFFECTIVE DATE: December 21, 2018

ISSUED TO

**Louisiana-Pacific Corporation, Sagola Plant**

State Registration Number (SRN): N1315

LOCATED AT

N8504 Highway M-95, Sagola, Dickinson County, Michigan 49881

## RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-N1315-2018

Expiration Date: December 21, 2023

Administratively Complete ROP Renewal Application Due Between
June 21, 2022 and June 21, 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-N1315-2018

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 Environmental Quality

_____

Ed Lancaster, Upper Peninsula District Supervisor



Style Definition: TOC 2

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## AUTHORITY AND ENFORCEABILITY

For the purpose of this permit, the **permittee** is defined as any person who owns or operates an emission unit at a stationary source for which this permit has been issued. The **department** is defined in Rule 104(d) as the Director of the Michigan Department of Environmental Quality (MDEQ) 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):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
    c. The date on which a regulated substance is first present above a threshold quantity in a process.

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

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

### Emission Trading

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

**Permit to Install (PTI)**

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

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

45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDEQ.[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, MDEQ, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.[2] **(R 336.1201(4))**

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

## B. SOURCE-WIDE CONDITIONS

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

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

# SOURCE-WIDE CONDITIONS

## DESCRIPTION

The following conditions apply to all process equipment including equipment covered by other permits, grand-fathered equipment, and exempt equipment.~~All process equipment at the facility including equipment covered by other permits, grand-fathered equipment and exempt equipment.~~

## POLLUTION CONTROL EQUIPMENT

NA~~NA~~

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## I. EMISSION LIMIT(S)

NA

## II. MATERIAL LIMIT(S)

| Material | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. Finished Product (OSB) | 310,000 tons[2] per year | 12 month rolling time period as determined at the end of each calendar month | Facility Wide | SC VI. 2 | **R 336.1205 R 336.1225 R 336.1702(a) 40 CFR 52.21(c), (d) and (j))** |
| 2. Finished Product (Siding) | 250,000 tons per year | 12 month rolling time period as determined at the end of each calendar month | Facility Wide | SC VI | **R336.1205, R3361225, R336 1702(a)** |

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## 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 keep records of fugitive dust control activities and dates carried out per a DEQ approved Fugitive Dust Control Plan. **(R 336.1205, R 336.1371, R 336.1372)**

2. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month rolling production records. All records shall be kept on file for a period of at least five years and made available to the Department upon request.[2] **(R 336.1205 (1)(a) and (3), 40 CFR 52.21(c), (d) and (j))**

3. The permittee shall keep records of the Inspection and Maintenance Program specified under IX.1, including records of inspections done, problems found, repairs completed and/or corrective action taken, and scheduled and completed maintenance on the air cleaning devices.[2] **(R 336.1201(3))**

**See Appendices 3, 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)

NA

## IX. OTHER REQUIREMENT(S)

1. Permittee shall implement and maintain the Fugitive Dust Control Plan as specified in Appendix 3 to limit all fugitive dust emissions from the roadways, the material storage piles, stock pile areas, and other operations throughout the plant. **(R 336.1201, R 336.1371, 40 CFR 52.21**

2. The permittee shall carry out an Inspection and Maintenance Program, including the keeping of a daily log or checklists, for all air cleaning devices to assure that the air cleaning devices are maintained and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law. The permittee shall keep records of the Inspection and Maintenance Program including records of problems found, repairs done and/or corrective action taken, and scheduled and completed maintenance on the air cleaning devices.[2] **(R 336.1301, R 336.1331, R 336.1910, 40 CFR Part 64.6(c) & 64.7(b))**

3. The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**

4. The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart DDDD—National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products. **(40 CFR Part 63, Subpart DDDD)**

**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).

# 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 |
|---|---|---|---|
| EUTOH-WOOD | 60 million BTU per hour heat input Geka Thermal Oil Heater, fired with wood & bark, controlled by the electrostatic precipitator. | 1988 / 1996 | FGBOILERMACT |
| EUTOH-NG | One Geka thermal oil heater to burn natural gas, rated at a maximum heat input of 24 million BTU per hour. | 1988 | FGBOILERMACT |
| EUFLAKE1 | 50 million BTU per hour direct heat input wood-fired or natural gas-fired, single-pass wood flake dryer (Surface/Core Dryer) controlled by a wet ESP. | 1988 / 1996 / 2004 | FGDRYERS |
| EUFLAKE2 | 50 million BTU per hour direct heat input wood-fired or natural gas-fired single-pass wood flake dryer (Core Dryer) controlled by a wet ESP. | 1988 / 1996 / 2004 | FGDRYERS |
| EUFLAKE3 | 50 million BTU per hour direct heat input wood-fired or natural gas-fired single-pass wood flake dryer (Surface Dryer) controlled by a wet ESP. | 1988 / 1996 / 2004 | FGDRYERS |

| Emission Unit ID | Emission Unit Description (Including Process Equipment & Control Device(s)) | Installation Date/ Modification Date | Flexible Group ID |
|---|---|---|---|
| EUPRESS | Press System (EUPRESS) including the mat forming line with a paper overlay system and the board press. The paper overlay system will unroll, measure, cut, and apply the paper to the formed mat prior to the board press. The board press will include embossing plates to provide the SmartSide® wood grain finish. Emissions from EUPRESS are controlled by a single device that oxidizes VOCs and HAPs either thermally (RTO) or catalytically (RCO). When operating as a RCO a layer of catalyst is placed in the combustion chamber, which allows the oxidation of VOC and HAPs to occur at lower temperatures. If the catalyst deactivates, the RCO can be converted to a RTO simply by increasing the temperature in the combustion chamber. Exposing the catalyst to high temperatures for prolonged periods of time deactivates the catalyst thus a RTO cannot be converted to a RCO unless the new layer of catalyst is placed in the combustion chamber.~~Press System including the board press and press unloader controlled by either a RCO or RTO.~~ | 1988 / 1996 / 2004 / 2008 / 2022 | NA |
| EUFORMING | Forming line system includes blenders, formers, fines blender, fines former, flying cut off saw, mat forming line controlled by baghouse dust collector BH2.~~The forming line system includes the blenders, formers, flying cutoff saw, and mat forming line controlled by a baghouse dust collector.~~ | 1988 / 1998 / 2022 | ~~FGBH2, FGBH1~~NA |
| EUSAWLINE | Sawline system includes first and second pass saws and controlled by baghouse dust collector BH4.~~The sawline system includes sawline cleanup points and the trim, crosscut, and rip saws~~. | 1988 / 1998 / 2022 | FGBH4, FGBH1, ~~FGBH5FGSANDER1, FGMAIN1, FGMAIN3, FGLAIDIG~~ |
| ~~EUPULVERIZING1 EUFINISHING1~~ | ~~#1 Fuel fines pulverizing mill#1 Finishing (Pulverizing) mill~~ | 2003 | ~~FGBH3FGMAIN3~~ |
| ~~EUPULVERIZING2 EUFINISHING2~~ | ~~#2 Fuel fines pulverizing mill#2 Finishing (Pulverizing) mill~~ | 2003 | ~~FGBH3FGMAIN3~~ |
| EUSANDER | Sanding operations controlled by a baghouse dust collector BH7~~Sander.~~ | 1988 / 1998 | FGBH7, FGBH1, FGBH5~~FGSANDER1, FGSANDER2, FGMAIN1, FGMAIN3, FGLAIDIG~~ |
| EUTGPATTERN | Tongue and Groove Machine controlled by a baghouse dust collector BH7. | 1988 / 1998 | FGBH7, FGBH1, FGBH5~~FGSANDER1, FGSANDER2, FGMAIN1, FGMAIN3, FGLAIDIG~~ |

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| Emission Unit ID | Emission Unit Description (Including Process Equipment & Control Device(s)) | Installation Date/ Modification Date | Flexible Group ID |
|---|---|---|---|
| EUHAMMERMILL1 | Primary fuel fines hammermill.~~Primary hammer mill~~ | 1988 / 1998 | FGBH7, FGBH1, FGBH5~~FGMAIN3, FGLAIDIG~~ |
| EUFUELBIN | Fuel fines bin. ~~Laidig fuel bin~~ | 1988 / 2003 | FGBH1, FGBH3~~FGMAIN3, FGLAIDIG~~ |
| EUFIREPUMP | Diesel fired emergency fire protection system water pump | 1987 | FGCIRICEMACT |
| EUPANELLINE | Board (panel) sawing, trimming, scoring, sanding, and finishing controlled by baghouse dust collector BH6. | 2022 | FGBH6, FGBH5 |
| EUPANELOV | Direct heated natural gas-fired oven on the Panel finishing line, total heat input 5.0 million Btu/hr. | 2022 | FGFINISHOVENS |
| EULAPLANE1 | Board (lap) sawing, trimming, scoring, sanding, and finishing controlled by baghouse dust collector BH6. | 2022 | FGBH6, FGBH5 |
| EULAP1OV | Direct heated natural gas-fired oven on the Lap finishing lane 1, total heat input 5.0 million Btu/hr | 2022 | FGFINISHOVENS |
| EULAP1XOV | Direct heated natural gas-fired oven on the Lap finishing lane 1, total heat input 6.3 million Btu/hr. | 2022 | FGFINISHOVENS |
| EULAPLANE2 | Board (lap) sawing, trimming, scoring, sanding, and finishing controlled by baghouse dust collector BH6. | 2022 | FGBH6, FGBH5 |
| EULAP2OV | Direct heated natural gas-fired oven on the Lap finishing lane 2, total heat input 5.0 million Btu/hr. | 2022 | FGFINISHOVENS |
| EULAP2XOV | Direct heated natural gas-fired oven on the Lap finishing lane 2, total heat input 6.3 million Btu/hr. | 2022 | FGFINISHOVENS |
| EUVSLINE | Board (vented soffit) sawing, trimming, sanding, and finishing controlled by baghouse dust collector BH8. | 2022 | FGBH8, FGBH5 |
| EUPRIMER | Non-VOC/HAP primer application on Panel, Lap, and VS lines by high-pressure spray or fan coater. | 2022 | N/A |
| EUHOG | Downgrade hog and room aspirations controlled by baghouse dust collector BH8. | 2022 | FGBH8, FGBH5 |
| EUOVERFINES | Overlay fines hammermill, storage bin, and metering bin controlled by baghouse dust collector BH5. | 2022 | FGBH5 |
| EUSCREENS | Aspiration from rotary screeners, conveyors, and dry bins controlled by baghouse dust collector BH1. | 2022 | FGBH1 |
| EUTODIESEL | Emergency diesel fuel fired thermal oil pump | 1991 | FGCIRICEMACT |
| EUDRYER1BACKUP | LP gas fired emergency drive | 2004 | FGSIRICEMACT |
| EUDRYER2BACKUP | LP gas fired emergency drive | 2004 | FGSIRICEMACT |
| EUDRYER3BACKUP | LP gas fired emergency drive | 2004 | FGSIRICEMACT |

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# EUTOH-WOOD
# EMISSION UNIT CONDITIONS

## DESCRIPTION

60 million BTU per hour heat input Geka Thermal Oil Heater, fired with wood and bark

**Flexible Group ID:** FGBOILERMACT

## POLLUTION CONTROL EQUIPMENT

- Multiclone
- Dry Electrostatic Precipitator (ESP)

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM | 11.55 pph[2] | Hourly | EUTOH-WOOD | SC VI. 1 | **R 336.1331 40 CFR 52.21 (d) and (j)** |
| 2. PM-10 | 11.55 pph[2] | Hourly | EUTOH-WOOD | SC V.1 | **40 CFR 52.21 (c), (d) and (j)** |
| 3. NOx | 16.8 pph[2] | Hourly | EUTOH-WOOD | SC V.1 | **40 CFR 52.21 (c), (d) and (j)** |
| 4. CO | 28.6 pph[2] | Hourly | EUTOH-WOOD | SC V.1 | **40 CFR 52.21 (d) and (j)** |
| 5. VOC | 0.50 pph[2] | Hourly | EUTOH-WOOD | SC V.1 | **R 336.1702(a) 40 CFR 52.21 (d) and (j)** |

## II. MATERIAL LIMIT(S)

| Material | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. Dry Fuel | 30,660 tons[2] | 12 month rolling time period as determined at the end of each calendar month | EUTOH-WOOD | SC VI.2 | **R 336.1205 R 336.1225 R 336.1702 40 CFR 52.21(c) & (d))** |

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall burn only wood & bark in EUTOH-WOOD.[2] **(R 336.1205(3))**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUTOH-WOOD, when fired with wood/bark, unless the Multiclone and Dry Electrostatic Precipitator are operating properly.[2] **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

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

| Pollutant | Test Method Reference |
|---|---|
| PM | 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules |
| PM10/PM2.5 | 40 CFR Part 51, Appendix M |
| CO | 40 CFR Part 60, Appendix A |
| NOx | 40 CFR Part 60, Appendix A |
| VOC | 40 CFR Part 60, Appendix A |

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

2. The permittee shall verify the NOx and VOC emission rates from EUTOH-WOOD at a minimum, every three years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

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

**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 conduct Visible Emission (VE) readings of the Dry ESP dust collectors daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the ESP. Readings do not need to be conducted by a certified VE reader [2] **(R 336.1301)**

2. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month rolling fuel usage records, in tons dry fuel, for EUTOH-WOOD. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [2] **(R 336.1205(1)(a) and (3), R 336.1225, R 336.1331, R 336.1702(a), 40 CFR 52.21 (c), (d))**

**See Appendices 3, 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. SVTOHBNG | 47[2] | 100[2] | **R 336.1331**<br>**R 336.1702(a)**<br>**40 CFR 52.21(c) and (d)** |

## IX. OTHER REQUIREMENT(S)

NA

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

# EUTOH-NG
# EMISSION UNIT CONDITIONS

## DESCRIPTION

A 24 million BTU per hour heat input Geka Thermal Oil Heater, fired with natural gas.

**Flexible Group ID:** FGBOILERMACT

## POLLUTION CONTROL EQUIPMENT

NA

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM | 0.17 pph[2] | Hourly | EUTOH-NG | SC V.1 | **R 336.1331** |
| 2. PM-10 | 0.17 pph[2] | Hourly | EUTOH-NG | SC V.1 | **40 CFR 52.21 (c), (d) and (j)** |
| 3. NOx | 2.83 pph[2] | Hourly | EUTOH-NG | SC V.1 | **40 CFR 52.21 (c), (d) and (j)** |
| 4. CO | 1.98 pph[2] | Hourly | EUTOH-NG | SC V.1 | **40 CFR 52.21 (d) and (j)** |
| 5. VOC | 0.129 pph[2] | Hourly | EUTOH-NG | SC V.1 | **R 336.1702(a)** |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall burn only natural gas in the EUTOH-NG.[2] **(R 336.1205(3))**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

## V. TESTING/SAMPLING

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

1. The permittee shall verify, at the request of the AQD District Supervisor, PM, PM-10, NOx, CO, and VOC emission rates from EUTOH-NG by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

| Pollutant | Test Method Reference |
|---|---|
| PM | 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules |
| PM10/PM2.5 | 40 CFR Part 51, Appendix M |
| NOx | 40 CFR Part 60, Appendix A |
| CO | 40 CFR Part 60, Appendix A |
| VOC | 40 CFR Part 60, Appendix A |

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

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

## VI. MONITORING/RECORDKEEPING

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

NA

## VII. REPORTING

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

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

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

4. The permittee shall submit 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. SVTOHBNG | 47[2] | 100[2] | **R 336.1331**<br>**R 336.1702(a)**<br>**40 CFR 52.21(c) and (d)** |

## IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD - National Emission Standards for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters referenced in the FGBOILERMACT section of this ROP. **(40 CFR Part 63, Subpart DDDDD)**

**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).

# EUPRESS
# EMISSION UNIT CONDITIONS

## DESCRIPTION

Press System (EUPRESS) including the mat forming line with a paper overlay system and the board press. The paper overlay system will unroll, measure, cut, and apply the paper to the formed mat prior to the board press. The board press will include embossing plates to provide the SmartSide® wood grain finish. ~~Press System including the mat forming line and the board press.~~ Emissions from EUPRESS are controlled by a single device that oxidizes VOCs and HAPs either thermally (RTO) or catalytically (RCO). When operating as a RCO a layer of catalyst is placed in the combustion chamber, which allows the oxidation of VOC and HAPs to occur at lower temperatures. If the catalyst deactivates, the RCO can be converted to a RTO simply by increasing the temperature in the combustion chamber. Exposing the catalyst to high temperatures for prolonged periods of time deactivates the catalyst thus an RTO cannot be converted to a RCO unless the new layer of catalyst is placed in the combustion chamber.

**Flexible Group ID:** NA

## POLLUTION CONTROL EQUIPMENT

RCO or RTO~~Regenerative catalytic oxidizer (RCO) or regenerative thermal oxidizer (RTO~~)

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. NOx | 43.0 pph~~[2] *~~ | Hourly | EUPRESS | SC V.1 | **40 CFR 52.21 (c), (d), and (j)** |
| 2. NOx | 155.0 tpy~~[2] **~~ | 12-month rolling time period as determined at the end of each calendar month | EUPRESS | SC VI.2 | **40 CFR 52.21 (c), (d), and (j)** |
| 3. CO | 0.51 lb/TFP~~[2]~~ | 12-month rolling time period as determined at the end of each calendar month | EUPRESS | SC V.1 See Source Wide Conditions II. 1 and VI.2 and FGFACILITY SC I.1, SC 1.2, SC VI.2 | **40 CFR 52.21 (d) and (j)** |
| 4. VOC | 3.44 pph~~[2 2]*~~ | Hourly | EUPRESS | SC V.1 | **R 336.1702(a)** |
| 5. VOC | 12.4 tpy~~[2] **~~ | 12-month rolling time period as determined at the end of each calendar month | EUPRESS | SC VI.3 | **R 336.1702(a)** |
| ~~6. PM~~ | ~~0.072 lb/TFP[2]~~ | ~~12-month rolling time period~~ | ~~EUPRESS~~ | ~~III.2 Source Wide Conditions II. 1 and VI.2~~ | ~~**R 336.1331**~~ |

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| ~~7.~~ 6. PM-10 | 0.072 lb/TFP~~22~~ | 12-month rolling time period | EUPRESS | SC V.2, SC VI.4, ~~SC V.1~~ Source Wide Conditions II. 1 and VI.2 and FGFACILITY SC I.1, SC 1.2, SC VI.2 | **40 CFR 52.21 (c), (d), and (j)** |
| 7. PM10 | 2.0 pph | Hourly | EUPRESS | SC V.2 | R 336.2803, R 336.2804 |
| 8. PM2.5 | 2.0 pph | Hourly | EUPRESS | SC V.2 | R 336.2803, R 336.2804 |
| ~~8.~~ 9. Formaldehyde | 5.91 pph~~22~~ | Hourly | EUPRESS | SC V.1 | **R 336.1225** |

~~* If tested emission factors for EUPRESS exist, those emission factors shall be used to estimate pollutant emissions and determine compliance with the tons per year limit.~~

~~** Annual limits are based on a facility-wide production limit of 310,000 tons of finished product.~~

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## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Except as provided in SC V.~~4~~3. the permittee shall maintain an hourly average minimum combustion chamber temperature of 800 degrees (RCO) or 1400 degrees (RTO) or not less than the last compliance test temperature that met the applicable VOC emission limitation in SC I during operation of the press based on a one hour average for the RCO or RTO that controls the EUPRESS emission unit.~~2~~ **(R 336.1225, R 336.1702(a)~~R 336.1702~~, R 336.1910)**

2. Visible emissions from EUPRESS during normal operation (excluding the bake out time period) shall not exceed a six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.[2] (R 336.1301(1)(a))

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not produce product in EUPRESS unless the RCO or RTO is operating properly.~~2~~ **(R 336.1910)**

## V. TESTING/SAMPLING

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

1. The permittee shall verify ~~PM-10,~~ NOx, CO, ~~and~~ VOC, and ~~Formaldehyde~~ emission rates from EUPRESS by testing at owner's expense, in accordance with the Department requirements once every five years from the last test. Testing shall be performed using an approved EPA Method listed in:

| Pollutant | Test Method Reference |
|---|---|
| ~~PM10/PM2.5~~ | ~~40 CFR Part 51, Appendix M~~ |
| NOx | 40 CFR Part 60, Appendix A |

| | |
|---|---|
| CO | 40 CFR Part 60, Appendix A |
| VOC | 40 CFR Part 60, Appendix A |
| Formaldehyde | 40 CFR Part 63, Appendix A |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21(c), (d), and (j))**

2. Within 180 days after commencement of initial startup and every five years thereafter, the permittee shall verify PM10 and PM2.5 emission rates from EUPRESS by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below. ~~The permittee shall verify the PM-10, NOx, CO, VOC, and Formaldehyde emission rates from EUPRESS, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**~~

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804).**

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

4. The permittee may lower the minimum operating temperature in the RCO/RTO below the last compliance test value that met the applicable VOC emission limitation if sufficient data is submitted to the Department that proves that VOC emissions can be maintained under the applicable emission limit at the lower temperature. The permittee may conduct trials at a temperature less than the most recent successful compliance test no more frequently than quarterly to obtain such data. [2] **(R 336.1225, R 336.1702, R 336.1910)**

**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 monitor and record the RCO/RTO combustion chamber temperature and the volumetric flow rate through the RCO/RTO on a continuous basis with instrumentation acceptable to the Air Quality Division, except if an alternate method(s) is approved by the District Supervisor, Air Quality Division. [2] **(R 336.1201(3))**

2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling NOx records for EUPRESS. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [2] **(R 336.1205(1)(a), 40 CFR 52.21(c), (d) and (j))**

3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling VOC records for EUPRESS. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [2] **(R 336.1205(1)(a), R 336.1225, R 336.1702(a))**



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4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling PM10 records for EUPRESS. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205(1)(a), 40 CFR 52.21(c), (d) and (j))**

## VII. REPORTING

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

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

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

4. 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. SVPRESS | 76[2] | 100[2] | **R 336.1225, R 336.1331, R 336.1702(a)** |

## IX. OTHER REQUIREMENT(S)

NA

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

# EUFORMING
# EMISSION UNIT CONDITIONS

## DESCRIPTION

The forming line system includes the blenders, formers, flying cutoff saw, and forming line.

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

**Flexible Group ID:** FGBH2, FGBH1FGMAIN3, FGLAIDIG

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM | 0.01 lb/1000 lbs exhaust gas, calculated on a dry gas basis[2] | Continuously | EUFORMING | SC VI. 1<br>SC VI. 2 | R 336.1331 |
| 2. PM | 0.9 pph[2] | Hourly | EUFORMING | SC VI. 1<br>SC VI. 2 | R 336.1301 |
| 3. PM-10 | 0.01 lb/1000 lbs exhaust gas, calculated on a dry gas basis[2] | Continuously | EUFORMING | SC VI.1<br>SC VI. 2 | R 336.1205(3) |
| 4. PM-10 | 0.9 pph[2] | Hourly | EUFORMING | SC VI. 1<br>SC VI. 2 | 40 CFR 52.21 (c), (d) and (j) |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Visible emissions from EUFORMING shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331)**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the pneumatic material delivery system of EUFORMING, unless the associated baghouse is operating properly.[2] **(R 336.1910)**

## V. TESTING/SAMPLING

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

NA

## VI. MONITORING/RECORDKEEPING

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

1. The permitted shall conduct Visible Emission (VE) readings of the baghouse dust collectors daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collectors. Readings do not need to be conducted by a certified VE reader[2] **(R 336.1301, R 336.1331, 40 CFR Part 64.6(c) & 64.7(b))**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1 -5.0 inches of $H_2O$.[2] **(40 CFR 64.6(c)(1)(i and ii))**

3. An excursion is a departure from the indicator range of 0.1-5.0 inches of $H_2O$ for.[2] **(40 CFR 64.6(c)(2))**

4. 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).[2] **(40 CFR 64.7(d))**

5. 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.[2] **(40 CFR 64.6(c)(3), 64.7(c))**

6. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment.[2] **(40 CFR 64.7(b))**

## 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))**

5. Each semiannual report of monitoring and deviations shall include summary information o n 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)**

**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. SVMAIN2 | 27 X 37[2] | 48[2] | R 336.1331 |

## IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**

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

# D. FLEXIBLE GROUP CONDITIONS

Part D outlines 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 |
|---|---|---|
| FGDRYERS | Three single pass wood flake dryers each with a wet ESP controlled by a single RTO. | EUFLAKE1<br>EUFLAKE2<br>EUFLAKE3 |
| ~~FGSANDER1~~ | ~~A baghouse controlling particulate emissions from EUSAWLINE, EUTGPATTERN, and EUSANDER.~~ | ~~EUSAWLINE~~<br>~~EUTGPATTERN~~<br>~~EUSANDER~~ |
| ~~FGSANDER2~~ | ~~A baghouse controlling particulate emissions from EUTGPATTERN and EUSANDER.~~ | ~~EUTGPATTERN~~<br>~~EUSANDER~~ |
| ~~FGMAIN1~~ | ~~A baghouse controlling particulate emissions from EUSAWLINE, EUTGPATTERN, and EUSANDER.~~ | ~~EUSAWLINE~~<br>~~EUTGPATTERN~~<br>~~EUSANDER~~ |
| ~~FGMAIN3~~ | ~~A baghouse controlling particulate emissions from EUSAWLINE, EUFORMING, EUFINISHING1, EUFINISHING2, EUSANDER, EUTGPATTERN, EUHAMMERMILL1, AND EUFUELBIN.~~ | ~~EUSAWLINE~~<br>~~EUFORMING~~<br>~~EUFINISHING1~~<br>~~EUFINISHING2~~<br>~~EUSANDER~~<br>~~EUTGPATTERN~~<br>~~EUHAMMERMILL1~~<br>~~EUFUELBIN~~ |
| ~~FGLAIDIG~~ | ~~A baghouse controlling particulate emissions from EUSAWLINE, EUFORMING, EUSANDER, EUTGPATTERN, EUHAMMERMILL1, AND EUFUELBIN.~~ | ~~EUSAWLINE~~<br>~~EUFORMING~~<br>~~EUSANDER~~<br>~~EUTGPATTERN~~<br>~~EUHAMMERMILL1~~<br>~~EUFUELBIN~~ |
| FGBH1 | A baghouse controlling particulate emissions from EUSCREENS, EUFORMING, EUSAWLINE, EUTGPATTERN, EUSANDER, EUHAMMERMILL1, and EUFUELBIN. | EUSCREENS<br>EUFORMING<br>EUSAWLINE<br>EUTGPATTERN<br>EUSANDER,<br>EUHAMMERMILL1<br>EUFUELBIN |
| FGBH2 | A baghouse controlling particulate emissions from EUFORMING. | EUFORMING |

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| Flexible Group ID | Flexible Group Description | Associated Emission Unit IDs |
|---|---|---|
| FGBH3 | A baghouse controlling particulate emissions from EUPULVERIZNG1, EUPULVERIZNG2, EUHAMMERMILL1, EUFUELBIN and fuel fines material transfer. | EUPULVERIZNG1<br>EUPULVERIZNG2<br>EUHAMMERMILL1<br>EUFUELBIN |
| FGBH4 | A baghouse controlling particulate emissions from EUSAWLINE. | EUSAWLINE |
| FGBH5 | A baghouse controlling particulate emissions from EUOVERFINES, EUSAWLINE, EUPANELLINE, EULAPLANE1, EULAPLANE2, EUTGPATTERN, EUSANDER and fuel fines material transfer. | EUOVERFINES<br>EUSAWLINE<br>EUPANELLINE<br>EULAPLANE1<br>EULAPLANE2<br>EUTGPATTERN<br>EUSANDER |
| FGBH6 | A baghouse controlling particulate emissions from EUPANELLINE, EULAPLANE1, and EULAPLANE2. | EUPANELLINE<br>EULAPLANE1<br>EULAPLANE2 |
| FGBH7 | A baghouse controlling particulate emissions from EUPATTERN and EUSANDER. | EUTGPATTERN<br>EUSANDER |
| FGBH8 | A baghouse controlling particulate emissions from EUVSLINE and EUHOG. | EUVSLINE EUHOG |
| FGFINISHOVENS | Direct natural gas fired ovens on the Panel finishing line and Lap finishing lanes 1 and 2. | EUPANELOV<br>EULAP1OV<br>EULAP1XOV<br>EULAP2OV EULAP2XOV |
| FGBLRS/HTRS | Two (2) natural gas-fired service water heaters and thirty-nine (39) natural gas-fired air make-up units and space heaters. | NA |
| FGCIRICEMACT~~FGENGINECI~~ | Existing compression ignition engines <500 HP located at a Major Source subject to RICE MACT conditions. | EUFIREPUMP<br>EUTODIESEL |
| FGSIRICEMACT~~FGENGINESI~~ | Existing spark ignition engines <500 HP located at a Major Source subject to RICE MACT conditions. | EUDRYER1BACKUP<br>EUDRYER2BACKUP<br>EUDRYER3BACKUP |
| FGBOILERMACT | Existing boilers and process heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD | EUTOH-NG<br>EUTOH-WOOD |

# FGDRYERS
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

Three single pass wood flake dryers, each with a process cyclone to collect PM.

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

**Emission Units:** EUFLAKE1, EUFLAKE2, EUFLAKE3

## POLLUTION CONTROL EQUIPMENT

Wet Electrostatic Precipitators.
Regenerative Thermal Oxidizer.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. NOx | 0.62 lb/TFP Hardwood[2] | 12-month rolling average | FGDRYERS | SC V.1<br>SC VI.2<br>Appendix 7 | **R 336.2803<br>R 336.2804<br>R 336.2810<br>40 CFR 52.21 (c), (d), and (j)** |
| 2. NOx | 1.24 lb/TFP Softwood[2] | 12-month rolling average | FGDRYERS | II.1<br>SC V.1<br>SC VI.2 and5,<br>Appendix 7 | **R 336.2803<br>R 336.2804<br>R 336.2810<br>40 CFR 52.21 (c), (d), and (j)** |
| 3. CO | 3.64 lb/TFP Hardwood[2] | 12-month rolling average | FGDRYERS | SC V.1<br>SC VI.3<br>Appendix 7 | **R 336.2803<br>R 336.2804<br>R 336.2810<br>40 CFR 52.21 (d) and (j)** |
| 4. CO | 4.39 lb/TFP Softwood[2] | 12-month rolling average | FGDRYERS | II.1<br>SC V.1<br>SC VI.3 and 5,<br>Appendix 7 | **R 336.2804<br>R 336.2810<br>40 CFR 52.21 (d) and (j)** |
| 5. VOC | 0.29 lb/TFP Hardwood[2] | 12-month rolling average | FGDRYERS | SC V.1<br>SC VI.4<br>Appendix 7 | **R 336.1702(a)** |
| 6. VOC | 0.37 lb/TFP Softwood[2] | 12-month rolling average | FGDRYERS | II.1<br>SC V.1<br>SC VI.4 and 5,<br>Appendix 7 | **R 336.1702(a)** |
| 7. PM | 0.007 gr/dscf[2] | Continuously | FGDRYERS | III. 1 | **R 336.1331** |
| 8. PM | 10.0 pph[2] | Hourly | FGDRYERS | III. 1 | **R 336.1301** |

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 9. PM-10 | 0.007 gr/dscf[2] | Continuously | FGDRYERS | SC V.1 | **R 336.2803 R 336.2804 R 336.2810 40 CFR 52.21 (c), (d), and (j)** |
| 10. PM-10 | 10.0 pph[2] | Hourly | FGDRYERS | SC V.1 | **R 336.2803 R 336.2804 R 336.2810 40 CFR 52.21 (c), (d), and (j)** |
| 11. Formaldehyde | 6.8 pph[2] | Hourly | FGDRYERS | SC V.1 | **R 336.1225** |

## II. MATERIAL LIMIT(S)

| Material | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. Softwood | 60 percent or less (unless testing to determine compliance with emission limits has occurred)[2] | 12 month rolling time period | FGDRYERS | SC VI. 5 | **R 336.1225 R 336.1702 (a) R 336.1901** |

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Visible emissions from FGDRYERS during normal operation (excluding the bake out time period) shall not exceed a six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.[2] **(R 336.1301(1)(a))**

2. The permittee shall maintain an hourly average minimum combustion chamber temperature in the RTO of 1550 degrees Fahrenheit, or not less than the last compliance test value that met the applicable VOC emission limitation. The permittee shall maintain an hourly average maximum flow rate through the RTO of 217,000 actual cubic feet per minute only if FGDRYERS is operating.[2] **(R 336.1702 (a), R 336.1910)**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate FGDRYERS unless the Wet Electrostatic Precipitator and the Regenerative Thermal Oxidizer are operating properly.[2] **(R 336.1910)**

## V. TESTING/SAMPLING

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

1. The permittee shall verify NOx, CO, VOC, PM-10, and Formaldehyde emission rates from FGDRYERS by testing at owner's expense, in accordance with the Department requirements, at a minimum, every five years from the date of the last test. Testing shall be performed using an approved EPA Method listed in:

| Pollutant | Test Method Reference |
|---|---|
| PM | 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules |
| PM10/PM2.5 | 40 CFR Part 51, Appendix M |
| NOx | 40 CFR Part 60, Appendix A |

| | |
|---|---|
| CO | 40 CFR Part 60, Appendix A |
| VOC | 40 CFR Part 60, Appendix A |
| Formaldehyde | 40 CFR Part 63, Appendix A |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.[2] **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c), (d) and (j))**

2. The permittee may lower the minimum operating temperature in the RTO below the last compliance test value that met the applicable VOC emission limitation if sufficient data is submitted to the Department - and approved by the District Supervisor, Air Quality Division - that proves that VOC emissions can be maintained under the applicable emission limit at the lower temperature. The permittee may conduct trials at a temperature lower than the most recent successful compliance test no more frequently than quarterly to obtain such data. [2] **(R 336.1702, R 336.1910)**

**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 monitor and record the RTO combustion chamber temperature and the volumetric flow rate through the RTO on a continuous basis with instrumentation acceptable to the Air Quality Division. [2] **(R 336.1201)**

2. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month rolling NOx records for FGDRYERS. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[2] (R 336.1205(1)(a) and (3), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c), (d) and (j))**

3. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month rolling CO records for FGDRYERS. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [2] **(R 336.1205(1)(a) and (3), R 336.2804, R 336.2810, 40 CFR 52.21 (d) and (j))**

4. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month rolling VOC records for FGDRYERS. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [2] **(R 336.1205(1)(a) and (3), R 336.1225, R 336.1702(a))**

5. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month rolling average softwood usage records for FGDRYERS. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[2] (R 336.1205(1)(a) and (3), R 336.1225, R 336.1702(a))**

~~6.~~4. The permittee shall continuously monitor and record twice per shift the transformer voltage for both transformers as an indicator of proper operation of each ESP. The indicator range is 40 kV to 70 kV. **(40 CFR 64.6(c)(1)(i) and (ii))**

~~7.~~5. An excursion is a departure from the indicator range of 40kV to 70kV for more than one hour. **(40 CFR 64.6(c)(2))**

~~8.~~6. 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). The operator must shut down the corresponding wet bin live bottom if the upset condition is not corrected. **(40 CFR 64.7(d))**

~~9.~~7. 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), 64.7(c))**

~~10.~~8. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**

~~11.~~9. 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 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. 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 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. SVDRYERS | 96[2] | 100[2] | **R 336.1225, R 336.1331, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)** |

## IX. OTHER REQUIREMENT(S)

1. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification of the CAM Plan to address the necessary monitoring changes. Such a modification may include but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**

**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).

# FGSANDER1
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUSAWLINE, EUTGPATTERN, and EUSANDER.

FGSANDER1 is a CAM subject emission unit subject to the requirements of 40 CFR Part 64. The CAM subject pollutant for this emission unit is PM-10.

**Emission Units:** EUSAWLINE, EUTGPATTERN, and EUSANDER.

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM | 0.01 lb/1000 lbs exhaust gas, calculated on a dry gas basis[2] | Continuously | FGSANDER1 | SC VI. 1<br>SC VI. 2 | **R 336.1331** |
| 2. PM | 0.68 pph[2] | Hourly | FGSANDER1 | SC VI. 1<br>SC VI. 2 | **R 336.1301** |
| 3. PM-10 | 0.01 lb/1000 lbs exhaust gas, calculated on a dry gas basis[2] | Continuously | FGSANDER1 | SC VI. 1<br>SC VI. 2 | **R 336.1205(a)** |
| 4. PM-10 | 0.68 pph[2] | Hourly | FGSANDER1 | SC VI. 1<br>SC VI. 2 | **40 CFR 52.21 (c), (d) and (j)** |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Visible emissions from FGSANDER1 shall not exceed a six-minute average of 5 percent opacity.[2] **(R 336.1301, R 336.1331)**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the pneumatic material delivery system directly leading to FGSANDER1, unless the associated baghouse is operating properly.[2] **(R 336.1910)**

## 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 permitted shall conduct Visible Emission (VE) readings of the baghouse dust collectors daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collectors. Readings do not need to be conducted by a certified VE reader[2] **(R 336.1301, R 336.1331, 40 CFR Part 64.6(c) & 64.7(b))**

2. The permittee shall continuously measure the pressure drop and record once per 12 hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-5.0 inches of $H_2O$.[2] **(40 CFR 64.6(c)(1)(i and ii))**

3. An excursion is a departure from the indicator range of 0.1 to 5.0 inches of $H_2O$ for greater than one hour.[2] **(40 CFR 64.6(c)(2))**

4. 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))**

5. 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), 64.7(c))**

6. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b)**

## 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))**

5. 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))**

6. 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))**

**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. SVSANDER1 | 20 X 27[2] | 32[2] | R 336.1331<br>40 CFR 52.21(c) and (d) |

## IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**

**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).

# FGSANDER2
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUTGPATTERN and EUSANDER

FGSANDER2 is a CAM subject emission unit subject to the requirements of 40 CFR Part 64. The CAM subject pollutant for this emission unit is PM-10.

**Emission Units:** EUTGPATTERN and EUSANDER

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM | 0.01 lb/1000 lbs exhaust gas, calculated on a dry gas basis[2] | Continuously | FGSANDER2 | SC VI. 1<br>SC VI. 2 | **R 336.1331** |
| 2. PM | 1.24 pph[2] | Hourly | FGSANDER2 | SC VI. 1<br>SC VI. 2 | **R 336.1301** |
| 3. PM-10 | 0.01 lb/1000 lbs exhaust gas, calculated on a dry gas basis[2] | Continuously | FGSANDER2 | SC VI. 1<br>SC VI. 2 | **R 336.1205(a)** |
| 4. PM-10 | 1.24 pph[2] | Hourly | FGSANDER2 | SC VI. 1<br>SC VI. 2 | **40 CFR 52.21 (c), (d) and (j)** |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Visible emissions from FGSANDER2 shall not exceed a six-minute average of 5 percent opacity.[2] **(R 336.1301, R 336.1331)**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the pneumatic material delivery system directly leading to FGSANDER2, unless the associated baghouse is operating properly.[2] **(R 336.1910)**

## V. TESTING/SAMPLING

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

NA

## VI. MONITORING/RECORDKEEPING

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

1. The permitted shall conduct Visible Emission (VE) readings of the baghouse dust collectors daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collectors. Readings do not need to be conducted by a certified VE reader [2] **(R 336.1301, R 336.1331, 40 CFR Part 64.6(c) & 64.7(b))**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-5.0 inches of $H_2O$.[2] **(40 CFR 64.6(c)(1)(i and ii))**

3. An excursion is a departure from the indicator range of 0.1 to 5.0 inches of $H_2O$ for greater than one hour.[2] **(40 CFR 64.6(c)(2))**

4. 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))**

5. 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), 64.7(c))**

6. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**

## 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))**

5. 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))**

6. 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))**

**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. SVSANDER2 | 26 x 34[2] | 30[2] | R 336.1331<br>40 CFR 52.21(c) and (d) |

## IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**

**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).

# FGMAIN1
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUSAWLINE, EUTGPATTERN, AND EUSANDER

FGMAIN1 is a CAM subject emission unit subject to the requirements of 40 CFR Part 64. The CAM subject pollutant for this emission unit is PM-10.

**Emission Units:** EUSAWLINE, EUTGPATTERN, AND EUSANDER

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM | 0.01 lb/1000 lbs exhaust gas, calculated on a dry gas basis[2] | Continuously | FGMAIN1 | SC VI. 1<br>SC VI. 2 | R 336.1331 |
| 2. PM | 1.6 pph[2] | Hourly | FGMAIN1 | SCVI. 1<br>SC VI. 2 | R 336.1301 |
| 3. PM-10 | 0.01 lb/1000 lbs exhaust gas, calculated on a dry gas basis[2] | Continuously | FGMAIN1 | SC VI. 1<br>SC VI. 2 | R 336.1205(a) |
| 4. PM-10 | 1.6 pph[2] | Hourly | FGMAIN1 | SC VI. 1<br>SC VI. 2 | 40 CFR 52.21 (c), (d) and (j) |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Visible emissions from FGMAIN1 shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331)**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the pneumatic material delivery system directly leading to FGMAIN1, unless the associated baghouse is operating properly.[2] **(R 336.1910)**

## V. TESTING/SAMPLING

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

NA

## VI. MONITORING/RECORDKEEPING

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

1. The permitted shall conduct Visible Emission (VE) readings of the baghouse dust collectors daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collectors. Readings do not need to be conducted by a certified VE reader[2] **(R 336.1301, R 336.1331, 40 CFR Part 64.6(c) & 64.7(b))**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1 to 5.0 inches of $H_2O$.[2] **(40 CFR 64.6(c)(1)(i and ii))**

3. An excursion is a departure from the indicator range of 0.1 to 5.0 inches of $H_2O$ for greater than one hour.[2] **(40 CFR 64.6(c)(2))**

4. 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))**

5. 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), 64.7(c))**

6. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**

## 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))**

5. 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))**

6. 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))**

**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. SVMAIN1 | 27 x 37[2] | 48[2] | R 336.1331<br>40 CFR 52.21(c) and (d) |

## IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**

**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).

# FGMAIN3
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUSAWLINE, EUFORMING, EUFINISHING1, EUFINISHING2, EUSANDER, EUTGPATTERN, EUHAMMERMILL1, AND EUFUELBIN

FGMAIN3 is a CAM subject emission unit subject to the requirements of 40 CFR Part 64. The CAM subject pollutant for this emission unit is PM-10.

**Emission Units:** EUSAWLINE, EUFORMING, EUFINISHING1, EUFINISHING2, EUSANDER, EUTGPATTERN, EUHAMMERMILL1, AND EUFUELBIN

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector. This is a CAM subject control device.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM | 0.01 lb/1000 lbs exhaust gas calculated on a dry gas basis[2] | Continuously | FGMAIN3 | SC VI. 1<br>SC VI. 2 | **R 336.1331** |
| 2. PM | 1.1 pph[2] | Hourly | FGMAIN3 | SC VI. 1<br>SC VI. 2 | **R 336.1301** |
| 3. PM-10 | 0.01 lb/1000 lbs exhaust gas calculated on a dry gas basis[2] | Continuously | FGMAIN3 | SC VI. 1<br>SC VI. 2 | **R 336.1205(a)** |
| 4. PM-10 | 1.1 pph[2] | Hourly | FGMAIN3 | SC VI. 1<br>SC VI. 2 | **40 CFR 52.21 (c), (d) and (j)** |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Visible emissions from FGMAIN3 shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331)**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the pneumatic material delivery system directly leading to FGMAIN3, unless the associated baghouse is operating properly.[2] **(R 336.1910)**

## V. TESTING/SAMPLING

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

NA

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings of the baghouse dust collectors daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collectors. Readings do not need to be conducted by a certified VE reader[2] **(R 336.1301, R 336.1331, 40 CFR Part 64.6(c) & 64.7(b))**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1 to 5.0 inches of $H_2O$.[2] **(40 CFR 64.6(c)(1)(i and ii))**

3. An excursion is a departure from the indicator range of 0.1 to 5.0 inches of $H_2O$ for greater than one hour.[2] **(40 CFR 64.6(c)(2))**

4. 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))**

5. 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), 64.7(c))**

6. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**

## 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))**

5. 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))**

6. 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))**

**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. SVMAIN3 | 34[2] | 52[2] | R 336.1331<br>40 CFR 52.21 (c) and (d) |

## IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**

**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).

# FGLAIDIG
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUSAWLINE, EUFORMING, EUSANDER, EUTGPATTERN, EUHAMMERMILL1, AND EUFUELBIN.

**Emission Units:** EUSAWLINE, EUFORMING, EUSANDER, EUTGPATTERN, EUHAMMERMILL1, AND EUFUELBIN

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM | 0.01 lb/1000 lbs exhaust gas, calculated on a dry gas basis[2] | Continuously | FGLAIDIG | III.1 | R 336.1331 |
| 2. PM | 0.14 pph[2] | Hourly | FGLAIDIG | III.1 | R 336.1301 |
| 3. PM-10 | 0.01 lb/1000 lbs exhaust gas, calculated on a dry gas basis[2] | Continuously | FGLAIDIG | III.1 | R 336.1205(a) |
| 4. PM-10 | 0.14 pph[2] | Hourly | FGLAIDIG | III.1 | 40 CFR 52.21 (c), (d) and (j) |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Visible emissions from FGLAIDIG shall not exceed a six-minute average of five percent opacity.[2] **(R 336.1301, R 336.1331)**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the pneumatic material delivery system directly leading to FGLAIDIG, unless the associated baghouse is operating properly.[2] **(R 336.1910)**

## V. TESTING/SAMPLING

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

NA

## VI. MONITORING/RECORDKEEPING

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

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## 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. SVLAIDIG | 8[2] | 50[2] | R 336.1331<br>40 CFR 52.21 (c) and (d) |

## IX. OTHER REQUIREMENT(S)

NA

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

# FGBH1
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUSCREENS, FGBH2, FGBH4, and FGBH7.

**Emission Units:** EUSCREENS, EUFORMING (FGBH2), EUSAWLINE (FGBH4), EUPATTERN and EUSANDER (FGBH7), and EUMAMMERMILL1, and EUFUELBIN

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM10 | 0.39 pph | Hourly | FGBH1 | SC V.1 | R 336.2803, R 336.2804 |
| 2. PM2.5 | 0.39 pph | Hourly | FGBH1 | SC V.1 | R 336.2803, R 336.2804 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate process equipment or emission units controlled by FGBH1, unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse, has been submitted within 30 days of commencement of trial operation, and is implemented and maintained. The MAP shall, at a minimum, specify the following:

a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

b) An identification of the source and air-cleaning device operating variables that shall be



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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.

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

## IV. DESIGN/EQUIPMENT PARAMETER(S

1. The permittee shall not operate the process equipment and emission units controlled by FGBH1 unless a gauge, which continuously measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds 10.0 inches water, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup and upon the request of the AQD District Supervisor thereafter, the permittee shall verify PM10 and PM2.5 emission rates from FGBH5 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings for FGBH1 daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collector. Readings do not need to be conducted by a certified VE reader. **(R 336.1301)**

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2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-10.0 inches of $H_2O$. **(R 336.1331)**

## VII. REPORTING

NA

## 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. SVBH1 | 48 | 60 | R 336.1225, R 336.2803, R 336.2804 |

## IX. OTHER REQUIREMENT(S)

NA

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# FGBH2
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUFORMING.

**Emission Units:** EUFORMING

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM10 | 0.36 pph | Hourly | FGBH2 | SC V.1 | R 336.2803, R 336.2804 |
| 2. PM2.5 | 0.36 pph | Hourly | FGBH2 | SC V.1 | R 336.2803, R 336.2804 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate process equipment or emission units controlled by FGBH2, unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse, has been submitted within 30 days of commencement of trial operation, and is implemented and maintained. The MAP shall, at a minimum, specify the following:

   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

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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.

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

## IV. DESIGN/EQUIPMENT PARAMETER(S

1. The permittee shall not operate the process equipment and emission units controlled by FGBH2 unless a gauge, which continuously measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds 10.0 inches water, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup and upon the request of the AQD District Supervisor thereafter, the permittee shall verify PM10 and PM2.5 emission rates from FGBH2 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings for FGBH2 daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collector. Readings do not need to be conducted by a certified VE reader. **(R 336.1301)**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an



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indicator of proper operation of the dust collector. The indicator range is 0.1-10.0 inches of $H_2O$. **(R 336.1331)**

## VII. REPORTING

NA

## 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. SVBH2 | 48 | 60 | R 336.1225, R 336.2803, R 336.2804 |

## IX. OTHER REQUIREMENT(S)

NA

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# FGBH3
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUPULVERIZING1, EUPULVERIZING2, and fuel fines material transfer.

**Emission Units:** EUPULVERIZING1, EUPULVERIZING2, EUHAMMERMILL1 and EUFUELBIN, and fuel fines material transfer.

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM10 | 0.21 pph | Hourly | FGBH3 | SC V.1 | R 336.2803, R 336.2804 |
| 2. PM2.5 | 0.21 pph | Hourly | FGBH3 | SC V.1 | R 336.2803, R 336.2804 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate process equipment or emission units controlled by FGBH3, unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse, has been submitted within 30 days of commencement of trial operation, and is implemented and maintained. The MAP shall, at a minimum, specify the following:

a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a



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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.

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

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the process equipment and emission units controlled by FGBH3 unless a gauge, which continuously measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds 10.0 inches water, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup and upon the request of the AQD District Supervisor thereafter, the permittee shall verify PM10 and PM2.5 emission rates from FGBH3 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings for FGBH3 daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collector. Readings do not need to be conducted by a certified VE reader. **(R 336.1301)**
2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-10.0 inches of $H_2O$. **(R 336.1331)**

## VII. REPORTING

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## VIII. STACK/VENT RESTRICTION(S)

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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. SVBH3 | 48 | 60 | R 336.1225, R 336.2803, R 336.2804 |

## IX. OTHER REQUIREMENT(S)

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NA

# FGBH4
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUSAWLINE.

**Emission Units:** EUSAWLINE

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM10 | 0.39 pph | Hourly | FGBH4 | SC V.1 | R 336.2803, R 336.2804 |
| 2. PM2.5 | 0.39 pph | Hourly | FGBH4 | SC V.1 | R 336.2803, R 336.2804 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate process equipment or emission units controlled by FGBH4, unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse, has been submitted within 30 days of commencement of trial operation, and is implemented and maintained. The MAP shall, at a minimum, specify the following:

   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

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

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

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## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the process equipment and emission units controlled by FGBH4 unless a gauge, which continuously measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds 10.0 inches water, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup and upon the request of the AQD District Supervisor thereafter, the permittee shall verify PM10 and PM2.5 emission rates from FGBH4 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings for FGBH4 daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collector. Readings do not need to be conducted by a certified VE reader. **(R 336.1301)**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-10.0 inches of $H_2O$. **(R 336.1331)**

## VII. REPORTING

NA

## VIII. STACK/VENT RESTRICTION(S)



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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. SVBH4 | 48 | 80 | R 336.1225, R 336.2803, R 336.2804 |

## IX. OTHER REQUIREMENT(S)

NA

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# FGBH5
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUOVERFINES, FGBH4, FGBH6, and FGBH7.

**Emission Units:** EUOVERFINES, EUFORMING (FGBH2), EUPANELLINE, EULAPLANE1, EULAPLANE2 (FGBH6), EUTGPATTERN and EUSANDER (FGBH7), and fuel fines material transfer.

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM10 | 0.47 pph | Hourly | FGBH5 | SC V.1 | R 336.2803, R 336.2804 |
| 2. PM2.5 | 0.47 pph | Hourly | FGBH5 | SC V.1 | R 336.2803, R 336.2804 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate process equipment or emission units controlled by FGBH5, unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse, has been submitted within 30 days of commencement of trial operation, and is implemented and maintained. The MAP shall, at a minimum, specify the following:

   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

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

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



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## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the process equipment and emission units controlled by FGBH5 unless a gauge, which continuously measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds 10.0 inches water, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup and upon the request of the AQD District Supervisor thereafter, the permittee shall verify PM10 and PM2.5 emission rates from FGBH5 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings for FGBH5 daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collector. Readings do not need to be conducted by a certified VE reader. **(R 336.1301)**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-10.0 inches of H2O. **(R 336.1331)**

## V. REPORTING

NA

## VI. 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. SVBH5 | 48 | 60 | R 336.1225, R 336.2803, R 336.2804 |

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## IX. OTHER REQUIREMENT(S)

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# FGBH6
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUPANELLINE, EULAPLANE1, AND EULAPLANE2.

**Emission Units:** EUPANELLINE, EULAPLANE1, AND EULAPLANE2.

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM10 | 0.51 pph | Hourly | FGBH6 | SC V.1 | R 336.2803, R 336.2804 |
| 2. PM2.5 | 0.51 pph | Hourly | FGBH6 | SC V.1 | R 336.2803, R 336.2804 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate process equipment or emission units controlled by FGBH6, unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse, has been submitted within 30 days of commencement of trial operation, and is implemented and maintained. The MAP shall, at a minimum, specify the following:

   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

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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.

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

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the process equipment and emission units controlled by FGBH6 unless a gauge, which continuously measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds 10.0 inches water, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup and upon the request of the AQD District Supervisor thereafter, the permittee shall verify PM10 and PM2.5 emission rates from FGBH6 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings for FGBH6 daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collector. Readings do not need to be conducted by a certified VE reader. **(R 336.1301)**

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2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-10.0 inches of $H_2O$. **(R 336.1331)**

## VII. REPORTING

NA

## 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. SVBH6 | 48 | 80 | R 336.1225, R 336.2803, R 336.2804 |

## IX. OTHER REQUIREMENT(S)

NA

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# FGBH7
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUTGPATTERN and EUSANDER.

**Emission Units:** EUTGPATTERN, EUSANDER

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM10 | 0.39 pph | Hourly | FGBH7 | SC V.1 | R 336.2803, R 336.2804 |
| 2. PM2.5 | 0.39 pph | Hourly | FGBH7 | SC V.1 | R 336.2803, R 336.2804 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate process equipment or emission units controlled by FGBH7, unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse, has been submitted within 30 days of commencement of trial operation, and is implemented and maintained. The MAP shall, at a minimum, specify the following:

   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

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

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

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## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the process equipment and emission units controlled by FGBH7 unless a gauge, which continuously measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds 10.0 inches water, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup and upon the request of the AQD District Supervisor thereafter, the permittee shall verify PM10 and PM2.5 emission rates from FGBH7 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings for FGBH7 daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collector. Readings do not need to be conducted by a certified VE reader. **(R 336.1301)**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-10.0 inches of $H_2O$. **(R 336.1331)**

## VII. REPORTING

NA

## VIII. STACK/VENT RESTRICTION(S)



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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. SVBH7 | 48 | 60 | R 336.1225, R 336.2803, R 336.2804 |

## IX. OTHER REQUIREMENT(S)

NA

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# FGBH8
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUVSLINE and EUHOG.

**Emission Units:** EUVSLINE, EUHOG

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM10 | 0.47 pph | Hourly | FGBH8 | SC V.1 | R 336.2803, R 336.2804 |
| 2. PM2.5 | 0.47 pph | Hourly | FGBH8 | SC V.1 | R 336.2803, R 336.2804 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate process equipment or emission units controlled by FGBH8, unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse, has been submitted within 30 days of commencement of trial operation, and is implemented and maintained. The MAP shall, at a minimum, specify the following:

   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

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

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

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## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the process equipment and emission units controlled by FGBH8 unless a gauge, which continuously measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds 10.0 inches water, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup and upon the request of the AQD District Supervisor thereafter, the permittee shall verify PM10 and PM2.5 emission rates from FGBH8 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings for FGBH8 daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collector. Readings do not need to be conducted by a certified VE reader. **(R 336.1301)**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-10.0 inches of $H_2O$. **(R 336.1331)**

## VII. REPORTING

NA

## VIII. STACK/VENT RESTRICTION(S)



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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. SVBH8 | 48 | 60 | R 336.1331<br>R 336.2803, R 336.2804 |

## IX. OTHER REQUIREMENT(S)

NA

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# FGFINISHOVENS
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

Five direct natural gas-fired drying ovens on the panel finishing line (EUPANELLINE) and lap finishing lanes 1 and 2 (EULAPLANE1 AND EULAPLANE 2).

**Emission Unit:** EUPANELOV, EULAP1OV, EULAP1XOV, EULAP2OV, and EULAP2XOV

## POLLUTION CONTROL EQUIPMENT

NA

## I. EMISSION LIMIT(S)

NA

## II. MATERIAL LIMIT(S)

1. The permittee shall only burn natural gas in each oven in FGFINISHOVENS. **(R 336.1225, R 336.1702)**

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The total heat input capacity of the ovens in FGFINISHOVENS shall not exceed a maximum of 27.6 MM BTU per hour.1 **(R 336.1225)**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

## V. TESTING/SAMPLING

NA

## VI. MONITORING/RECORDKEEPING

NA

## VII. REPORTING

NA

## 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:1

| Stack & Vent ID | Maximum Exhaust Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|---|---|---|---|
| SVPANELOV1 | 14 | 40 | R 336.1225 |
| SVPANELOV2 | 14 | 40 | R 336.1225 |

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| Stack & Vent ID | Maximum Exhaust Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|---|---|---|---|
| SVLAP1OV1 | 14 | 40 | R 336.1225 |
| SVLAP1OV2 | 14 | 40 | R 336.1225 |
| SVLAP1XOV1 | 14 | 40 | R 336.1225 |
| SVLAP1XOV2 | 14 | 40 | R 336.1225 |
| SVLAP2OV1 | 14 | 40 | R 336.1225 |
| SVLAP2OV2 | 14 | 40 | R 336.1225 |
| SVLAP2XOV1 | 14 | 40 | R 336.1225 |
| SVLAP2XOV2 | 14 | 40 | R 336.1225 |

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## IX. OTHER REQUIREMENT(S)

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NA

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

# FGBLRS/HTRS
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

Two (2) natural gas-fired service water heaters and thirty-nine (39) natural gas-fired air make-up units and space heaters.

**Emission Unit:** NA

## POLLUTION CONTROL EQUIPMENT

NA

## I. EMISSION LIMIT(S)

NA

## II. MATERIAL LIMIT(S)

1. The permittee shall only burn natural gas in each combustion unit in FGBLRS/HTRS. **(R 336.1225, R 336.1702)**

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The total heat input capacity of the combustion units in FGBLRS/HTRS shall not exceed a maximum of 92.2 MMBTU per hour.[1] **(R 336.1225)**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

## V. TESTING/SAMPLING

NA

## VI. MONITORING/RECORDKEEPING

NA

## VII. REPORTING

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## VIII. STACK/VENT RESTRICTION(S)

NA

## IX. OTHER REQUIREMENT(S)

NA

**Footnotes:**

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

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# FGCIRICEMACT
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

Existing Stationary Emergency Engines located at a Major Source < 500 HP, Commenced Construction or Reconstruction **before June 12, 2006**.

The compliance date was May 3, 2013

**Emission Unit:** EUFIREPUMP and EUTODIESEL

## POLLUTION CONTROL EQUIPMENT

NA

## I. EMISSION LIMIT(S)

NA

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Each CI engine shall be installed, maintained, and operated in a satisfactory manner. A list of recommended work practice standards as specified in 63.6602 and Table 2c, Item 1 or the permittee may petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices. The following are the recommended work practices specified in 40 CFR Part 63, Subpart ZZZZ Table 2c:
   a. Change oil and filter every 500 hours of operation or annually, whichever comes first;
   b. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first; and
   c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

   If the CI engine is being operated during an emergency and it is not possible to shut down the engine to perform the work practice standards on the schedule required, the work practice standard can be delayed until the emergency is over. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State or local law has been abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law or which the risk was deemed unacceptable. **(40 CFR 63.6602, 40 CFR Part 63, Subpart ZZZZ Table 2c, Item 1)**

2. The permittee shall operate each CI engine in compliance with the emission limitations and operating limitations in this subpart. Each CI engine must be operated and maintained at any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.6605)**

3. Each CI engine shall be maintained and operated per the manufacturer's emission related written instructions or develop a maintenance plan which must provide for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions. **(40 CFR 63.6625(e), 40 CFR 63.6640(a), 40 CFR Part 63, Subpart ZZZZ, Table 6 Item 9)**

4. The permittee shall minimize the time spent at idle during startup and minimize the startup time of each CI engine to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. **(40 CFR 63.6625(h))**
5. The permittee shall not exceed 100 hours per year for maintenance checks and readiness testing. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. **(40 CFR 63.6640(f)(1)(ii))**
6. The permittee may operate each CI engine for non-emergency situations for up to 50 hours per year as allowed in 40 CFR 63.6640 (f)(1)(iii). **(40 CFR 63.6640(f)(1)(iii))**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each CI engine with a non-resettable hour meter to track the number of hours each CI engine operates. **(40 CFR 63.6625(f))**

## V. TESTING/SAMPLING

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

NA

## VI. MONITORING/RECORDKEEPING

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

1. For each CI engine the permittee shall keep in a satisfactory manner, records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(a)(2), 40 CFR 63.6660)**
2. For each CI engine the permittee shall keep in a satisfactory manner, records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(a)(5), 40 CFR 63.6660)**
3. For each CI engine the permittee shall keep in a satisfactory manner, records to demonstrate continuous compliance with operating limitations in SC III.1 and SC III.2. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(d), 40 CFR 63.6660)**
4. For each CI engine the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(e), 40 CFR 63.6660)**
5. For each CI engine 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. If the engines were used for demand response operation, the permittee shall keep records of the notification of the emergency situation and the time the engine was operated as part of demand response. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(f), 40 CFR 63.6660)**

## VII. REPORTING

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

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

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

4. The permittee shall submit any performance test reports, including RATA reports, to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

**See Appendix 8**

## VIII. STACK/VENT RESTRICTION(S)

NA

## IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines by the initial compliance date of May 3, 2013. **(40 CFR 63.6595(a)(1), 40 CFR Part 63, Subparts A and ZZZZ)**

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

# FGSIRICEMACT
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

Existing Stationary Emergency Engines located at a Major Source < 500 HP, Commenced Construction or Reconstruction **before June 12, 2006**.

The compliance date is October 19, 2013

**Emission Unit:** EUDRYER1BACKUP, EUDRYER2BACKUP, and EUDRYER3BACKUP

## POLLUTION CONTROL EQUIPMENT

NA

## I. EMISSION LIMIT(S)

NA

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Each SI engine shall be installed, maintained, and operated in a satisfactory manner. A list of recommended work practice standards as specified in 63.6602 and Table 2c, Item 6 or the permittee may petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices. The following are the recommended work practices specified in 40 CFR Part 63, Subpart ZZZZ Table 2c:
   a. Change oil and filter every 500 hours of operation or annually, whichever comes first;
   b. Inspect the spark plugs every 1,000 hours of operation or annually, whichever comes first; and
   c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

   If the SI engine is being operated during an emergency and it is not possible to shut down the engine to perform the work practice standards on the schedule required, the work practice standard can be delayed until the emergency is over. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State or local law has been abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law or which the risk was deemed unacceptable. **(40 CFR 63.6602, 40 CFR Part 63, Subpart ZZZZ Table 2c, Item 6)**

2. The permittee shall operate each SI engine in compliance with the emission limitations and operating limitations in this subpart. Each SI engine must be operated and maintained at any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.6605)**

3. Each SI engine shall be maintained and operated per the manufacturer's emission related written instructions or develop a maintenance plan which must provide for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions. **(40 CFR 63.6625(e), 40 CFR 63.6640(a), 40 CFR Part 63, Subpart ZZZZ, Table 6 Item 9)**

4. The permittee shall minimize the time spent at idle during startup and minimize the startup time of each SI engine to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. **(40 CFR 63.6625(h))**

5. The permittee shall not exceed 100 hours per year for maintenance checks and readiness testing. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. **(40 CFR 63.6640(f)(1)(ii))**

6. The permittee may operate each SI engine for non-emergency situations for up to 50 hours per year as allowed in 40 CFR 63.6640 (f)(1)(iii). **(40 CFR 63.6640(f)(1)(iii))**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each SI engine with a non-resettable hour meter to track the number of hours each SI engine operates. **(40 CFR 63.6625(f))**

## V. TESTING/SAMPLING

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

NA

## VI. MONITORING/RECORDKEEPING

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

1. For each SI engine the permittee shall keep in a satisfactory manner, records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(a)(2), 40 CFR 63.6660)**

2. For each SI engine the permittee shall keep in a satisfactory manner, records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(a)(5), 40 CFR 63.6660)**

3. For each SI engine the permittee shall keep in a satisfactory manner, records to demonstrate continuous compliance with operating limitations in SC III.1 and SC III.2. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(d), 40 CFR 63.6660)**

4. For each SI engine the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(e), 40 CFR 63.6660)**

5. For each SI engine 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. If the engines were used for demand response operation, the permittee shall keep records of the notification of the emergency situation and the time the engine was operated as part of demand response. The permittee shall keep all records on file and make them available to the department upon request**. (40 CFR 63.6655(f), 40 CFR 63.6660)**

## VII. REPORTING

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

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

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

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)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Spark Ignition Engines by the initial compliance date of October 19, 2013. **(40 CFR 63.6595(a)(1), 40 CFR Part 63, Subparts A and ZZZZ)**

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

# FGBOILERMACT
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

Stoker/Sloped Grate/Other wet biomass/bio-based unit requirements for existing Boilers and Process Heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD. Additionally, Requirements for existing Gas 1, (Natural Gas only) for existing Boilers and Process Heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD.

**Emission Unit: EUTOH-WOOD , EUTOH-NG**

## POLLUTION CONTROL EQUIPMENT

Multiclone (EUTOH-WOOD)
Dry Electrostatic Precipitator (EUTOH-WOOD)

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. HCl | ~~2.2~~2.0 x 10-2 lb/MMBtu heat input | At all times except during startup and shutdown | EUTOH-WOOD | SC V.1<br>SC V.2<br>SC V.9 | **40 CFR 63.7500 Table 2.1a** |
| 2. Mercury | ~~5.7~~5.4 x 10-6 lb/MMBtu heat input | At all times except during startup and shutdown | EUTOH-WOOD | SC V.1<br>SC V.2<br>SC V.9 | **40 CFR 63.7500 Table 2.1.b** |
| 3. CO (or CEMS)<br><br>Stokers/sloped grate/others designed to burn wet biomass fuel | ~~1500~~ 1100 ppmv, dry, @ 3% O2, or 720ppmv,dry,@ 3% O2, 30 day rolling avg. | At all times except during startup and shutdown | EUTOH-WOOD | SC V.1<br>SC V.2<br>SC V.9 | **40 CFR 63.7500 Table 2.7.a** |
| 4. Filterable PM or TSM<br><br>Stokers/sloped grate/others designed to burn wet biomass fuel | ~~3.7~~3.4 x 10-2 lb/MMBtu heat input (PM)<br>or<br>~~2.4~~2.0 x 10-4 lb/MMBtu heat input(TSM) | At all times except during startup and shutdown | EUTOH-WOOD | SC V.1<br>SC V.2<br>SC V.9 | **40 CFR 63.7500 Table 2.7.b** |
| Note: Emission limits apply only to those units with a heat input capacity of 10 MMBtu/hr or greater. | | | | | |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only burn fuels in EUTOH-WOOD as allowed in the *Unit designed to burn biomass/bio-based solid subcategory* definition in 40 CFR 63.7575. **(40 CFR 63.7499(i) & (p))**

2. In EUTOH-NG the permittee shall only burn natural gas as defined in 40 CFR 63.7575. **(40 CFR 63.7499(l))**

3. For ETOH-WOOD the permittee must meet the requirements in paragraphs (a)(1) through (3) of 40 CFR 63.7500, as listed below, except as provided in paragraphs (b) through (e) of 40 CFR 63.7500, stated in SC III.2 through SC III.4. The permittee must meet these requirements at all times the affected unit is operating, except as provided in paragraph (f) of 40 CFR 63.7500, stated in SC III.4. **(40 CFR 63.7500(a))**
   a. The permittee must meet each emission limit and work practice standard in Tables 2 and 3 of 40 CFR Part 63, Subpart DDDDD that applies to the boiler or process heater, for each boiler or process heater at the source, except as provided under 40 CFR 63.7522. **(40 CFR 63.7500(a)(1))**
   b. The permittee must meet each operating limit in Table 4 of 40 CFR Part 63, Subpart DDDDD that applies to the boiler or process heater. If the permittee uses a control device or combination of control devices not covered in Table 4 of 40 CFR Part 63, Subpart DDDDD, or the permittee wishes to establish and monitor an alternative operating limit or an alternative monitoring parameter, the permittee must apply to the EPA Administrator for approval of alternative monitoring under 40 CFR 63.8(f). **(40 CFR 63.7500(a)(2))**
   c. At all times, the permittee must operate and maintain any affected source (as defined in 40 CFR 63.7490, stated in SC IX.1), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. 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 63.7500(a)(3))**

4. As provided in 40 CFR 63.6(g), EPA may approve use of an alternative to the work practice standards in 40 CFR 63.7500 for EUTOH-WOOD. **(40 CFR 63.7500(b))**

5. For EUTOH-WOOD the permittee must conduct an annual performance tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.15., biennial performance tune-up according to 40 CFR 63.7540(a)(11), stated in SC IX.15., or 5-year performance tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.15. Each annual tune-up specified in 40 CFR 63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each biennial tune-up specified in 40 CFR 63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in 40 CFR 63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. (**40 CFR 63.7515(d))**

6. For EUTOH-WOOD the permittee must meet the work practice standard according to Table 3 of 40 CFR Part 63, Subpart DDDDD. During startup and shutdown, the permittee must only follow the work practice standards according to item 5 of Table 3 of 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7530(h))**

7. For startup and shutdown of EUTOH-WOOD, the permittee must meet the work practice standards according to items 5 and 6 of Table 3 of 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7540(d))**

8. The permittee must meet the tune-up and Energy Assessment work practice standards for EUTOH-NG. **(40 CFR 63.7500(a)(1), 40 CFR Part 63, Subpart DDDDD, Table 3, Nos. 1-4)**

9. The permittee must operate and maintain EUTOH-NG in a manner consistent with safety and good air pollution control practices for minimizing emissions. 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 63.7500(a)(3))**

10. The permittee may obtain approval from the Administrator to use an alternative to the work practice standards noted in SC III.1 and/or SC III.13 for EUTOH-NG. **(40 CFR 63.7500(b))**

11. For EUTOH-NG the permittee must:
    a. Complete a tune-up every 5 years (61 months) for boilers/process heaters less than or equal to 5 million Btu per hour. **(40 CFR 63.7500(e), 40 CFR 63.7515(d))**

    b. Complete a tune-up every 2 years (25 months) for boilers greater than 5 million Btu per hour and less than 10 million Btu per hour. **(40 CFR 63.7500(e), 40 CFR 63.7515(d))**
    c. Complete a tune-up annually (13 months) for boilers greater than 10 million Btu per hour. **(40 CFR 63.7540(a)(10), 40 CFR 63.7515(d))**
    d. Conduct the tune-up within 30 calendar days of startup, if the unit is not operating on the required date for a tune-up. **(40 CFR 63.7540(a)(13))**
    e. Follow the procedures described in SC IX 6.a through 6.f for all initial and subsequent tune ups. **(40 CFR 63.7540(a)(10), 40 CFR Part 63, Subpart DDDDD, Table 3)**
    f. Complete the Initial tune ups on all affected units no later than January 31, 2016, except as provided in **40 CFR 63.7510(j)** and **40 CFR 63.7540(a)(13)**.

## 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. For EUTOH-WOOD the permittee must demonstrate compliance with all applicable emission limits using performance stack testing, fuel analysis, or continuous monitoring systems (CMS), including a continuous emission monitoring system (CEMS), continuous opacity monitoring system (COMS), continuous parameter monitoring system (CPMS), or particulate matter continuous parameter monitoring system (PM CPMS), where applicable. The permittee may demonstrate compliance with the applicable emission limit for hydrogen chloride (HCl), mercury, or total selected metals (TSM) using fuel analysis if the emission rate calculated according to 40 CFR 63.7530(c) is less than the applicable emission limit. (For gaseous fuels, the permittee may not use fuel analyses to comply with the TSM alternative standard or the HCl standard.) Otherwise, the permittee must demonstrate compliance for HCl, mercury, or TSM using performance testing, if subject to an applicable emission limit listed in Table 2 of 40 CFR Part 63, Subpart DDDDD, stated in SC I.1 through SC I.4. **(40 CFR 63.7505(c))**

2. The permittee must conduct each performance test on EUTOH-WOOD according to the requirements in Table 5 of 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7520(b))**

3. The permittee must conduct all applicable performance tests for EUTOH-WOOD according to 40 CFR 63.7520, stated in SC V.3 and SC V.6 through SC V.10, on an annual basis, except as specified in paragraphs (b) through (e), (g), and (h) of 40 CFR 63.7515, stated in SC III.6, SC V.8 through SC V.14, and SC IX.6. Annual performance tests must be completed no more than 13 months after the previous performance test, except as specified in paragraphs (b) through (e), (g), and (h) of 40 CFR 63.7515, stated in SC V.4 through SC V.5, and SC IX.6. **(40 CFR 63.7515(a))**

4. If the performance tests of EUTOH-WOOD for a given pollutant for at least 2 consecutive years show that the emissions are at or below 75 percent of the emission limit (or, in limited instances as specified in Table 2 of 40 CFR Part 63, Subpart DDDDD, stated in SC I.1 through SC I.4, at or below the emission limit) for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, the permittee may choose to conduct performance tests for the pollutant every third year. Each such performance test must be conducted no more than 37 months after the previous performance test. **(40 CFR 63.7515(b))**

5. If a performance test on EUTOH-WOOD shows emissions exceeded the emission limit or 75 percent of the emission limit (as specified in Table 2 of 40 CFR Part 63, Subpart DDDDD, stated in SC I.1 through SC I.4) for a pollutant, the permittee must conduct annual performance tests for that pollutant until all performance tests over

a consecutive 2-year period meet the required level (at or below 75 percent of the emission limit, as specified in Table 2 of 40 CFR Part 63, Subpart DDDDD, stated in SC I.1 through SC I.4). **(40 CFR 63.7515(c))**

6. The permittee must conduct all performance tests on EUTOH-WOOD according to 40 CFR 63.7(c), (d), (f), and (h). The permittee must also develop a site-specific stack test plan according to the requirements in 40 CFR 63.7(c). The permittee shall conduct all performance tests under such conditions as the Administrator specifies to the permittee based on the representative performance of each boiler or process heater for the period being tested. Upon request, the permittee shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. **(40 CFR 63.7520(a))**

7. The permittee must conduct each performance test on EUTOH-WOOD under the specific conditions listed in Tables 5 and 7 of 40 CFR Part 63, Subpart DDDDD. The permittee must conduct performance tests at representative operating load conditions while burning the type of fuel or mixture of fuels that has the highest content of chlorine and mercury, and TSM if the permittee is opting to comply with the TSM alternative standard and the permittee must demonstrate initial compliance and establish the operating limits based on these performance tests. These requirements could result in the need to conduct more than one performance test. Following each performance test and until the next performance test, the permittee must comply with the operating limit for operating load conditions specified in Table 4 of 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7520(c))**

8. The permittee must conduct a minimum of three separate test runs on EUTOH-WOOD for each performance test required in 40 CFR 63.7520, as specified in 40 CFR 63.7(e)(3). Each test run must comply with the minimum applicable sampling times or volumes specified in Table 2 of 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7520(d))**

9. To determine compliance with the emission limits on EUTOH-WOOD, the permittee must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 at 40 CFR Part 60, Appendix A-7 to convert the measured particulate matter (PM) concentrations, the measured HCl concentrations, the measured mercury concentrations, and the measured TSM concentrations that result from the performance test to pounds per million Btu heat input emission rates. **(40 CFR 63.7520(e)**

10. Except for a 30-day rolling average based on CEMS (or sorbent trap monitoring system) data, if measurement results for any pollutant are reported as below the method detection level on EUTOH-WOOD (e.g., laboratory analytical results for one or more sample components are below the method defined analytical detection level), the permittee must use the method detection level as the measured emissions level for that pollutant in calculating compliance. The measured result for a multiple component analysis (e.g., analytical values for multiple Method 29 fractions both for individual HAP metals and for total HAP metals) may include a combination of method detection level data and analytical data reported above the method detection level. **(40 CFR 63.7520(f))**

11. If the permittee demonstrates compliance through performance testing on EUTOH-WOOD, the permittee must establish each site-specific operating limit in Table 4 of 40 CFR Part 63, Subpart DDDDD that applies according to the requirements in 40 CFR 63.7520, stated in SC V.6 through SC V.10, Table 7 of 40 CFR Part 63, Subpart DDDDD, and paragraph (b)(4) of 40 CFR 63.7530 as applicable. The permittee must also conduct fuel analyses according to 40 CFR 63.7521 and establish maximum fuel pollutant input levels according to paragraphs (b)(1) through (3) of 40 CFR 63.7530 as applicable. However, if the permittee switches fuel(s) and cannot show that the new fuel(s) does (do) not increase the chlorine, mercury, or TSM input into the unit through the results of fuel analysis, then the permittee must repeat the performance test to demonstrate compliance while burning the new fuel(s). **(40 CFR 63.7530(b))**

12. The permittee of an affected source must notify the AQD in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin on EUTOH-WOOD. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. **(40 CFR 63.7(b)(1), R 336.2001(3))**

13. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**

14. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5)**

## VI. MONITORING/RECORDKEEPING

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

1. For EUTOH-WOOD if the permittee demonstrates compliance with any applicable emission limit through performance testing and subsequent compliance with operating limits (including the use of CPMS), or with a CEMS, or COMS, the permittee must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of 40 CFR 63.7505, as listed below, for the use of any CEMS, COMS, or CPMS. This requirement also applies to the permittee if the permittee petitions the EPA Administrator for alternative monitoring parameters under 40 CFR 63.8(f). **(40 CFR 63.7505(d))**
   a. For each CMS required in 40 CFR 63.7505 (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 design, data collection, and the quality assurance and quality control elements outlined in 40 CFR 63.8(d) and the elements described in paragraphs (d)(1)(i) through (iii) of 40 CFR 63.7505, as listed below. The permittee must submit this site-specific monitoring plan, if requested, at least 60 days before the initial performance evaluation of the 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 Part 60 of 40 CFR and that meet the requirements of 40 CFR 63.7525, stated in SC VI.2 through SC VI.3. Using the process described in 40 CRFR 63.8(f)(4), the permittee may request approval of alternative monitoring system quality assurance and quality control procedures in place of those specified in this paragraph and, if approved, include the alternatives in the site-specific monitoring plan. **(40 CFR 63.7505(d)(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 63.7505(d)(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 63.7505(d)(1)(ii))**
      iii. Performance evaluation procedures and acceptance criteria (e.g., calibrations, accuracy audits, analytical drift). **(40 CFR 63.7505(d)(1)(iii))**
   b. In the site-specific monitoring plan, the permittee must also address paragraphs (d)(2)(i) through (iii) of 40 CFR 63.7505, as listed below. **(40 CFR 63.7505(d)(2))**
      i. 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 63.7505(d)(2)(i))**
      ii. Ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR 63.8(d). **(40 CFR 63.7505(d)(2)(ii))**
      iii. Ongoing recordkeeping and reporting procedures in accordance with the general requirements of 40 CFR 63.10(c) (as applicable in Table 10 of 40 CFR Part 63, Subpart DDDDD), (e)(1), and (e)(2)(i). **(40 CFR 63.7505(d)(2)(iii))**
   c. The permittee must conduct a performance evaluation of each CMS in accordance with the site-specific monitoring plan. **(40 CFR 63.7505(d)(3))**
   d. The permittee must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan. **(40 CFR 63.7505(d)(4))**

2. If the boiler or process heater is subject to a CO emission limit in Table 2 of 40 CFR Part 63, Subpart DDDDD, the permittee must install, operate, and maintain an oxygen analyzer system, as defined in 40 CFR 63.7575, or install, certify, operate and maintain continuous emission monitoring systems for CO and oxygen according to the procedures in paragraphs (a)(1) through (7) of 40 CFR 63.7525, as listed below. **(40 CFR 63.7525(a))**

a. Install the CO CEMS and oxygen analyzer as specified in 40 CFR 63.6(i). The CO and oxygen levels shall be monitored at the same location at the outlet of the boiler or process heater. **(40 CFR 63.7525(a)(1))**

b. To demonstrate compliance with the applicable alternative CO CEMS emission standard listed in Table 2 of 40 CFR Part 63, Subpart DDDDD, the permittee must install, certify, operate, and maintain a CO CEMS and an oxygen analyzer according to the applicable procedures under Performance Specification 4, 4A, or 4B at 40 CFR Part 60, Appendix B, the site-specific monitoring plan developed according to 40 CFR 63.7505(d), stated in SC VI.1, and the requirements in 40 CFR 63.7540(a)(8), stated in paragraph (a) of 40 CFR 63.7525. Any boiler or process heater that has a CO CEMS that is compliant with Performance Specification 4, 4A, or 4B at 40 CFR Part 60, Appendix B, a site-specific monitoring plan developed according to 40 CFR 63.7505(d), stated in SC VI.1, and the requirements in 40 CFR 63.7540(a)(8), stated in paragraph (a) of 40 CFR 63.7525 must use the CO CEMS to comply with the applicable alternative CO CEMS emission standard listed in Table 2 of 40 CFR Part 63, Subpart DDDDD, stated in SC I.3. **(40 CFR 63.7525(a)(2))**

   i. The permittee must conduct a performance evaluation of each CO CEMS according to the requirements in 40 CFR 63.8(e) and according to Performance Specification 4, 4A, or 4B at 40 CFR Part 60, Appendix B. **(40 CFR 63.7525(a)(2)(i))**

   ii. During each relative accuracy test run of the CO CEMS, the permittee must be collect emission data for CO concurrently (or within a 30- to 60-minute period) by both the CO CEMS and by Method 10, 10A, or 10B at 40 CFR Part 60, Appendix A-4. The relative accuracy testing must be at representative operating conditions. **(40 CFR 63.7525(a)(2)(ii))**

   iii. The permittee must follow the quality assurance procedures (e.g., quarterly accuracy determinations and daily calibration drift tests) of Procedure 1 of Appendix F to 40 CFR Part 60. The measurement span value of the CO CEMS must be two times the applicable CO emission limit, expressed as a concentration. **(40 CFR 63.7525(a)(2)(iii))**

   iv. Any CO CEMS that does not comply with 40 CFR 63.7525(a) cannot be used to meet any requirement in 40 CFR Part 63, Subpart DDDDD to demonstrate compliance with a CO emission limit listed in Table 2 of 40 CFR Part 63, Subpart DDDDD, stated in SC I.3. **(40 CFR 63.7525(a)(2)(iv))**

   v. For an existing unit, complete the initial performance evaluation no later than July 29, 2016. **(40 CFR 63.7525(a)(2)(v))**

3. If the permittee has an applicable opacity operating limit in this rule, and is not otherwise required or elect to install and operate a PM CPMS, PM CEMS, or a bag leak detection system, the permittee must install, operate, certify and maintain each COMS according to the procedures in paragraphs (c)(1) through (7) of 40 CFR 63.7525. **(40 CFR 63.7525(c))**

   a. Each COMS must be installed, operated, and maintained according to Performance Specification 1 at Appendix B to Part 60 of 40 CFR. **(40 CFR 63.7525(c)(1))**

   b. The permittee must conduct a performance evaluation of each COMS according to the requirements in 40 CFR 63.8(e) and according to Performance Specification 1 at Appendix B to Part 60 of 40 CFR. **(40 CFR 63.7525(c)(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 63.7525(c)(3))**

   d. The COMS data must be reduced as specified in 40 CFR 63.8(g)(2). **(40 CFR 63.7525(c)(4))**

   e. The permittee must include in the 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 63.7525(c)(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. Any 6-minute period for which the monitoring system is out of control and data are not available for a required calculation constitutes a deviation from the monitoring requirements. **(40 CFR 63.7525(c)(6))**

g. The permittee must determine and record all the 6-minute averages (and daily block averages as applicable) collected for periods during which the COMS is not out of control. **(40 CFR 63.7525(c)(7))**

4. For EUTOH-WOOD the permittee must monitor and collect data according to 40 CFR 63.7535 and the site-specific monitoring plan required by 40 CFR 63.7505(d), stated in SC VI.1. **(40 CFR 63.7535(a))**

5. The permittee must operate the monitoring system and collect data at all required intervals at all times that each boiler or process heater 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)), and required monitoring system quality assurance or control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in the 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 63.7535(b))**

6. The permittee may not use data recorded 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 control activities in data averages and calculations used to report emissions or operating levels. The permittee must record and make available upon request results of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with the site-specific monitoring plan. The permittee must use all the data collected during all other periods in assessing compliance and the operation of the control device and associated control system. **(40 CFR 63.7535(c))**

7. Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements. In calculating monitoring results, do not use any data collected during periods when the monitoring system is out of control as specified in the site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities. The permittee must calculate monitoring results using all other monitoring data collected while the process is operating. The permittee must report all periods when the monitoring system is out of control in the annual report. **(40 CFR 63.7535(d))**

8. The permittee must keep records according to paragraphs (a)(1) and (2) of 40 CFR 63.7555, as listed below. **(40 CFR 63.7555(a))**
   a. A copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**
   b. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7555(a)(2))**

9. For each CEMS, COMS, and continuous monitoring system the permittee must keep records according to paragraphs (b)(1) through (5) of 40 CFR 63.7555, as listed below. **(40 CFR 63.7555(b))**
   a. Records described in 40 CFR 63.10(b)(2)(vii) through (xi). **(40 CFR 63.7555(b)(1))**
   b. Monitoring data for continuous opacity monitoring system during a performance evaluation as required in 40 CFR 63.6(h)(7)(i) and (ii). **(40 CFR 63.7555(b)(2))**
   c. Previous (*i.e.,* superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3). **(40 CFR 63.7555(b)(3))**
   d. Request for alternatives to relative accuracy test for CEMS as required in 40 CFR 63.8(f)(6)(i). **(40 CFR 63.7555(b)(4))**

e. Records of the date and time that each deviation started and stopped. **(40 CFR 63.7555(b)(5))**

10. The permittee must keep the records required in Table 8 of 40 CFR Part 63, Subpart DDDDD including records of all monitoring data and calculated averages for applicable operating limits, such as opacity, pressure drop, pH, and operating load, to show continuous compliance with each emission limit and operating limit that applies to the permittee. **(40 CFR 63.7555(c))**

11. For each boiler or process heater subject to an emission limit in Table 2 of 40 CFR Part 63, Subpart DDDDD, stated in SC I.1 through SC I.4, the permittee must also keep the applicable records in paragraphs (d)(1) through (11) of 40 CFR 63.7555, as listed below. **(40 CFR 63.7555(d))**

a. The permittee must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used. **(40 CFR 63.7555(d)(1))**

b. If the permittee combusts non-hazardous secondary materials that have been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1) and (2), the permittee must keep a record that documents how the secondary material meets each of the legitimacy criteria under 40 CFR 241.3(d)(1). If the permittee combusts a fuel that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR 241.3(b)(4), the permittee must keep records as to how the operations that produced the fuel satisfy the definition of processing in 40 CFR 241.2. If the fuel received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), the permittee must keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per 40 CFR 241.4, the permittee must keep records documenting that the material is listed as a non-waste under 40 CFR 241.4(a). Units exempt from the incinerator standards under section 129(g)(1) of the Clean Air Act because they are qualifying facilities burning a homogeneous waste stream do not need to maintain the records described in this paragraph (d)(2). **(40 CFR 63.7555(d)(2))**

c. A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 7 of 40 CFR 63.7530 that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 12 of 40 CFR 63.7530 that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. The permittee can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the permittee must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater. **(40 CFR 63.7555(d)(4))**

d. A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 8 of 40 CFR 63.7530 that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 13 of 40 CFR 63.7530 that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. The permittee can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the permittee must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater. **(40 CFR 63.7555(d)(5))**

e. If, consistent with 40 CFR 63.7515(b), stated in SC V.4, the permittee chooses to stack test less frequently than annually, the permittee must keep a record that documents that the emissions in the previous stack test(s) were less than 75 percent of the applicable emission limit (or, in specific instances noted in Table 2 of 40 CFR Part 63, Subpart DDDD

D, less than the applicable emission limit), and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year. **(40 CFR 63.7555(d)(6))**

f. Records of the occurrence and duration of each malfunction of EUTOH-WOOD, or of the associated air pollution control and monitoring equipment. **(40 CFR 63.7555(d)(7))**

g. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR 63.7500(a)(3), stated in SC III.1, including corrective actions to restore EUTOH-WOOD, air pollution control, or monitoring equipment to its normal or usual manner of operation. **(40 CFR 63.7555(d)(8))**

h. A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 9 of 40 CFR 63.7530 that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 14 of 40 CFR 63.7530 that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. The permittee can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the permittee must calculate TSM fuel input, or TSM emission rates, for each boiler and process heater. **(40 CFR 63.7555(d)(9))**

i. The permittee must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown of EUTOH-WOOD. **(40 CFR 63.7555(d)(10))**

j. The permittee must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown of EUTOH-WOOD. **(40 CFR 63.7555(d)(11))**

12. The permittee must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown. **(40 CFR 63.7555(i))**

13. The permittee must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown. **(40 CFR 63.7555(j))**

14. Records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). **(40 CFR 63.7560(a))**

15. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**

16. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The permittee can keep the records off site for the remaining 3 years. **(40 CFR 63.7560(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))**

4. The permittee must meet the notification requirements in 40 CFR 63.7545 according to the schedule in 40 CFR 63.7545, both stated in SC VII.8 through SC VII.10 and in Subpart A of 40 CFR 63. **(40 CFR 63.7495(d))**

5. The permittee must report the results of performance tests and the associated fuel analyses within 60 days after the completion of the performance tests. This report must also verify that the operating limits for each boiler or process heater have not changed or provide documentation of revised operating limits established according to

40 CFR 63.7530 and Table 7 to 40 CFR Part 63, Subpart DDDDD, as applicable. The reports for all subsequent performance tests must include all applicable information required in 40 CFR 63.7550. **(40 CFR 63.7515(f))**

6. The permittee must report each instance in which the permittee did not meet each emission limit and operating limit in Tables 2 through 4 of 40 CFR Part 63, Subpart DDDDD that apply to the permittee. These instances are deviations from the emission limits or operating limits, respectively, in 40 CFR Part 63, Subpart DDDDD. These deviations must be reported according to the requirements in 40 CFR 63.7550, stated in SC VII.17 and SC VII.18. **(40 CFR 63.7540(b))**

7. The permittee must submit to the Administrator all of the notifications in 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f)(4) and (6), and 40 CFR 63.9(b) through (h) that apply to the permittee by the dates specified. **(40 CFR 63.7545(a))**

8. If the permittee is required to conduct a performance test, the permittee must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin. (**40 CFR 63.7545(d))**

9. If the permittee intends to commence or recommence combustion of solid waste, the permittee must provide 30 days prior notice of the date upon which the permittee will commence or recommence combustion of solid waste. The notification must identify:
   a. The name of the owner or operator of the affected source, as defined in 40 CFR 63.7490, stated in SC IX.1, the location of the source, the boiler(s) or process heater(s) that will commence burning solid waste, and the date of the notice. **(40 CFR 63.7545(g)(1))**
   b. The currently applicable subcategories under 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7545(g)(2))**
   c. The date on which the permittee became subject to the currently applicable emission limits. **(40 CFR 63.7545(g)(3))**
   d. The date upon which the permittee will commence combusting solid waste. **(40 CFR 63.7545(g)(4)) (40 CFR 63.7545(g))**

10. If the permittee has switched fuels or made a physical change to the boiler and the fuel switch or physical change resulted in the applicability of a different subcategory, the permittee must provide notice of the date upon which the permittee switched fuels or made the physical change within 30 days of the switch/change. The notification must identify:
    a. The name of the owner or operator of the affected source, as defined in 40 CFR 63.7490, stated in SC IX.1, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice. **(40 CFR 63.7545(h)(1))**
    b. The currently applicable subcategory under 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7545(h)(2))**
    c. The date upon which the fuel switch or physical change occurred. **(40 CFR 63.7545(h)(3)) (40 CFR 63.7545(h))**

11. The permittee must submit each report in Table 9 of 40 CFR Part 63, Subpart DDDDD that applies to the permittee. **(40 CFR 63.7550(a))**

12. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to paragraph (h) of 40 CFR 63.7550, stated in SC VII. 19, by the date in Table 9 of 40 CFR Part 63, Subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below. **(40 CFR 63.7550(b))**
    a. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31. **(40 CFR 63.7550(b)(3))**

b. Each subsequent compliance report must be postmarked or submitted no later than September 15 or March 15, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(4))**

13. A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule. **(40 CFR 63.7550(c))**
    a. If the facility is subject to the requirements of a tune up they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv) and (xiv) of 40 CFR 63.7550. **(40 CFR 63.7550(c)(1))**
    b. If a facility is complying with the fuel analysis the facility must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv), (vi), (x), (xi), (xiii), (xv) of 40 CFR 63.7550 and paragraph (d) of 40 CFR 63.7550. **(40 CFR 63.7550(c)(2))**
    c. If a facility is complying with the applicable emissions limit with performance testing they must submit a compliance report with the information in (c)(5)(i) through (iv), (vi), (vii), (ix), (xi), (xiii), (xv) of 40 CFR 63.7550 and paragraph (d) of 40 CFR 63.7550. **(40 CFR 63.7550(c)(3))**
    d. If a facility is complying with an emissions limit using a CMS the compliance report must contain the information required in paragraphs (c)(5)(i) through (vi), (xi), (xiii), and (xv) through (xvii) of 40 CFR 63.7550 and paragraph (e) of 40 CFR 63.7550. **(40 CFR 63.7550(c)(4)**
    e. 40 CFR 63.7550(c)(5) is as follows:
        i. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
        ii. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
        iii. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
        iv. The total operating time during the reporting period. **(40 CFR 63.7550(c)(5)(iv))**
        v. If the permittee uses a CMS, including CEMS, COMS, or CPMS, the permittee must include the monitoring equipment manufacturer(s) and model numbers and the date of the last CMS certification or audit. **(40 CFR 63.7550(c)(5)(v))**
        vi. The total fuel use by each individual boiler or process heater subject to an emission limit 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 EPA or the basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure. **(40 CFR 63.7550(c)(5)(vi))**
        vii. If the permittee is conducting performance tests once every 3 years consistent with 40 CFR 63.7515(b) or (c), stated in SC V.4 or SC V.5, the date of the last 2 performance tests and a statement as to whether there have been any operational changes since the last performance test that could increase emissions. **(40 CFR 63.7550(c)(5)(vii))**
        viii. A statement indicating that the permittee burned no new types of fuel in an individual boiler or process heater subject to an emission limit. Or, if the permittee did burn a new type of fuel and is subject to a HCl emission limit, the permittee must submit the calculation of chlorine input, using Equation 7 of 40 CFR 63.7530 that demonstrates that the source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or the permittee must submit the calculation of HCl emission rate using Equation 12 of 40 CFR 63.7530 that demonstrates that the source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If the permittee burned a new type of fuel and is subject to a mercury emission limit, the permittee must submit the calculation of mercury input, using Equation 8 of 40 CFR 63.7530 that demonstrates that the source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or the permittee must submit the

calculation of mercury emission rate using Equation 13 of 40 CFR 63.7530 that demonstrates that the source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If the permittee burned a new type of fuel and is subject to a TSM emission limit, the permittee must submit the calculation of TSM input, using Equation 9 of 40 CFR 63.7530 that demonstrates that the source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or the permittee must submit the calculation of TSM emission rate, using Equation 14 of 40 CFR 63.7530 that demonstrates that the source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). **(40 CFR 63.7550(c)(5)(viii))**

ix. If the permittee wishes to burn a new type of fuel in an individual boiler or process heater subject to an emission limit and the permittee cannot demonstrate compliance with the maximum chlorine input operating limit using Equation 7 of 40 CFR 63.7530, or the maximum mercury input operating limit using Equation 8 of 40 CFR 63.7530, or the maximum TSM input operating limit using Equation 9 of 40 CFR 63.7530, the permittee must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel. **(40 CFR 63.7550(c)(5)(ix))**

x. A summary of any monthly fuel analyses conducted to demonstrate compliance according to 40 CFR 63.7521 and 40 CFR 63.7530 for individual boilers or process heaters subject to emission limits, and any fuel specification analyses conducted according to 40 CFR 63.7521(f) **(40 CFR 63.7550(c)(5)(x))**

xi. If there are no deviations from any emission limits or operating limits in this subpart that apply to the permittee, a statement that there were no deviations from the emission limits or operating limits during the reporting period. **(40 CFR 63.7550(c)(5)(xi))**

xii. If there were no deviations from the monitoring requirements including no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in 40 CFR 63.8(c)(7), a statement that there were no deviations and no periods during which the CMS were out of control during the reporting period. **(40 CFR 63.7550(c)(5)(xii))**

xiii. If a malfunction occurred during the reporting period, the report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the permittee during a malfunction of a boiler, process heater, or associated air pollution control device or CMS to minimize emissions in accordance with 40 CFR 63.7500(a)(3), stated in SC III.1, including actions taken to correct the malfunction. **(40 CFR 63.7550(c)(5)(xiii))**

xiv. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10), biennial tune-up according to 40 CFR 63.7540(a)(11), or 5-year tune-up according to 40 CFR 63.7540(a)(12). Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**

xv. If the permittee plans to demonstrate compliance by emission averaging, certify the emission level achieved or the control technology employed is no less stringent than the level or control technology contained in the notification of compliance status in 40 CFR 63.7545(e)(5)(i). **(40 CFR 63.7550(c)(5)(xv))**

14. For each deviation from an emission limit or operating limit in 40 CFR Part 63, Subpart DDDDD that occurs at an individual boiler or process heater where the permittee is not using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the information required in paragraphs (d)(1) through (3) of 40 CFR 63.7550, as listed below. **(40 CFR 63.7550(d))**

    a. A description of the deviation and which emission limit or operating limit from which the permittee deviated. **(40 CFR 63.7550(d)(1))**

b. Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken. **(40 CFR 63.7550(d)(2))**

c. If the deviation occurred during an annual performance test, provide the date the annual performance test was completed. **(40 CFR 63.7550(d)(3))**

15. For each deviation from an emission limit, operating limit, and monitoring requirement in 40 CFR Part 63, Subpart DDDDD occurring at an individual boiler or process heater where the permittee is using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the information required in paragraphs (e)(1) through (9) of 40 CFR 63.7550, as listed below. This includes any deviations from the site-specific monitoring plan as required in 40 CFR 63.7505(d), stated in SC VI.1. **(40 CFR 63.7550(e))**

a. The date and time that each deviation started and stopped and description of the nature of the deviation (i.e., what the permittee deviated from). **(40 CFR 63.7550(e)(1))**

b. The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks. **(40 CFR 63.7550(e)(2))**

c. The date, time, and duration that each CMS was out of control, including the information in 40 CFR 63.8(c)(8). **(40 CFR 63.7550(e)(3))**

d. The date and time that each deviation started and stopped. **(40 CFR 63.7550(e)(4))**

e. A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period. **(40 CFR 63.7550(e)(5))**

f. A characterization of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes. **(40 CFR 63.7550(e)(6))**

g. A summary of the total duration of CMS's downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period. **(40 CFR 63.7550(e)(7))**

h. A brief description of the source for which there was a deviation. **(40 CFR 63.7550(e)(8))**

i. A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation. **(40 CFR 63.7550(e)(9))**

16. The permittee must submit the reports according to the procedures specified in paragraphs (h)(1) through (3) of 40 CFR 63.7550, as listed below. **(40 CFR 63.7550(h))**

a. 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 DDDDD the permittee must submit the results of the performance tests, including any associated fuel analyses, required by 40 CFR Part 63, Subpart DDDDD and the compliance reports required in 40 CFR 63.7550(b), stated in SC VII.24, to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see *http://www.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 the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/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 the EPA via CDX as described earlier in this paragraph. At the discretion of the Administrator, the permittee must also submit these reports, including the confidential business information, to the Administrator in the format specified by the Administrator. 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. **(40 CFR 63.7550(h)(1))**

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b. Within 60 days after the date of completing each CEMS performance evaluation test (defined in 40 CFR 63.2) the permittee must submit the relative accuracy test audit (RATA) data to the EPA's Central Data Exchange

by using CEDRI as mentioned in paragraph (h)(1) of 40 CFR 63.7550. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the owner or operator shall submit the results of the performance evaluation in paper submissions to the Administrator. **(40 CFR 63.7550(h)(2))**

c. The permittee must submit all reports required by Table 9 of 40 CFR Part 63, Subpart DDDDD electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due the report the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. At the discretion of the Administrator, the permittee must also submit these reports, to the Administrator in the format specified by the Administrator. **(40 CFR 63.7550(h)(3))**

Field Code Changed

## VIII. STACK/VENT RESTRICTION(S)

NA

## IX. OTHER REQUIREMENT(S)

1. 40 CFR Part 63, Subpart DDDDD applies to existing affected sources as described in paragraph (a)(1) of 40 CFR 63.7490, as listed below. **(40 CFR 63.7490(a))**
   a. The affected source of this subpart is the collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory as defined in 40 CFR 63.7575. **(40 CFR 63.7490(a)(1))**

2. A boiler or process heater exists if it is not new or reconstructed, as defined below. **(40 CFR 63.7490(d))**

   a. A boiler or process heater is new if the permittee commences construction of the boiler or process heater after June 4, 2010, and the permittee meets the applicability criteria at the time the permittee commences construction. **(40 CFR 63.7490(b))**
   b. A boiler or process heater is reconstructed if the permittee meets the reconstruction criteria as defined in 40 CFR 63.2, the permittee commences reconstruction after June 4, 2010, and the permittee meets the applicability criteria at the time the permittee commence reconstruction. **(40 CFR 63.7490(c))**

3. The permittee must be in compliance with the emission limits, work practice standards, and operating limits in this subpart. These limits apply at all times the affected unit is operating except for the periods noted in 40 CFR 63.7500(f), stated in SC III.4. **(40 CFR 63.7505(a))**

4. If EUTOH-WOOD(as defined in 40 CFR 63.7490, stated in SC IX.1) has not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, the permittee must complete the subsequent compliance demonstration no later than 180 days after the re-start of the affected source and according to the applicable provisions in 40 CFR 63.7(a)(2) as cited in Table 10 of 40 CFR Part 63, Subpart DDDDD. The permittee must complete a subsequent tune-up by following the procedures described in 40 CFR 63.7540(a)(10)(i) through (vi), and the schedule described in 40 CFR 63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up. **(40 CFR 63.7515(g))**

5. The permittee must demonstrate continuous compliance with each emission limit in Table 2 of 40 CFR Part 63, Subpart DDDDD, stated in SC I.1 through SC I.4, the work practice standards in Table 3 of 40 CFR Part 63, Subpart DDDDD, and the operating limits in Table 4 of 40 CFR Part 63, Subpart DDDDD that applies according to the methods specified in Table 8 of 40 CFR Part 63, Subpart DDDDD and paragraphs (a)(1) through (19) of 40 CFR 63.7540. **(40 CFR 63.7540(a))**

6. Table 10 of 40 CFR Part 63, Subpart DDDDD shows which parts of the General Provisions in 40 CFR 63.1 through 40 CFR 63.15 applies to the permittee. **(40 CFR 63.7565)**

7. The permittee must demonstrate continuous compliance with the tune-up requirement for EUTOH-NG by completing the following: **(40 CFR 63.7540(a))**
   a. Inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to tune-up or delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**
   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 63.7540(a)(10)(ii))**
   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). 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 63.7540(a)(10)(iii))**
   d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any $NO_X$ requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
   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 63.7540(a)(10)(v))**
   f. Maintain on-site and submit, if requested by the Administrator, the most recent periodic report containing the information as listed below. **(40 CFR 63.7540(a)(10)(vi))**

   g. 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 or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
   h. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**
   i. The type and amount of fuel used over the 12 months prior to the tune-up, 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 used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**

**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).

# FGFACILITY CONDITIONS

## DESCRIPTION

The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment, and exempt equipment.

## POLLUTION CONTROL EQUIPMENT

RCO, RTO, and baghouse dust collectors.

## I. EMISSION LIMIT(S)

NA

## II. MATERIAL LIMIT(S)

| Material | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. Finished Product (OSB) | 310,000 tons per year | 12-month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.2 | R 336.1205, R 336.1225, R 336.1702(a), 40 CFR 52.21(j) |
| 2. Finished Product (Siding) | 250,000 tons per year | 12-month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.2 | R 336.1205, R 336.1225, R 336.1702(a) |

## III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

## IV. DESIGN/EQUIPMENT PARAMETER(S

NA

## V. TESTING/SAMPLING

NA

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep records of fugitive dust control activities and dates carried out per a AQD approved Fugitive Dust Control Plan. **(R 336.1205, R 336.1371, R 336.1372)**
2. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month rolling production records as required in SC I.1 and SC I.2. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205(1)(a) and (3), 40 CFR 52.21(j))**
3. The permittee shall keep records of the Inspection and Maintenance Program specified in SC IX.2, including records of inspections done, problems found, repairs completed and/or corrective action taken, and scheduled and completed maintenance on the air cleaning devices. **(R 336.1201(3))**

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## VII. REPORTING

NA

## VIII. STACK/VENT RESTRICTION(S)

NA

## IX. OTHER REQUIREMENT(S)

1. Permittee shall implement and maintain the Fugitive Dust Control Plan as specified in Appendix 3 to limit all fugitive dust emissions from the roadways, the material storage piles, stockpile areas, and other operations throughout the plant. **(R 336.1201, R 336.1371, 40 CFR 52.21)**
2. The permittee shall carry out an Inspection and Maintenance Program, including the keeping of a daily log or checklists, for all air cleaning devices to assure that the air cleaning devices are maintained and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law. The permittee shall keep records of the Inspection and Maintenance Program including records of problems found, repairs done and/or corrective action taken, and scheduled and completed maintenance on the air cleaning devices. **(R 336.1301, R 336.1331, R 336.1910)**
3. The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart DDDD—National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products. **(40 CFR Part 63, Subpart DDDD)**

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## E. NON-APPLICABLE REQUIREMENTS

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

# 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 | $CO_2e$ | Carbon Dioxide Equivalent |
| CFR | Code of Federal Regulations | dscf | Dry standard cubic foot |
| COM | Continuous Opacity Monitoring | dscm | Dry standard cubic meter |
| Department/ department | Michigan Department of Environmental Quality | °F | Degrees Fahrenheit |
| | | gr | Grains |
| EU | Emission Unit | HAP | Hazardous Air Pollutant |
| FG | Flexible Group | Hg | Mercury |
| GACS | Gallons of Applied Coating Solids | hr | Hour |
| GC | General Condition | HP | Horsepower |
| GHGs | Greenhouse Gases | $H_2S$ | Hydrogen Sulfide |
| HVLP | High Volume Low Pressure* | kW | Kilowatt |
| ID | Identification | lb | Pound |
| IRSL | Initial Risk Screening Level | m | Meter |
| ITSL | Initial Threshold Screening Level | mg | Milligram |
| LAER | Lowest Achievable Emission Rate | mm | Millimeter |
| MACT | Maximum Achievable Control Technology | MM | Million |
| MAERS | Michigan Air Emissions Reporting System | MW | Megawatts |
| MAP | Malfunction Abatement Plan | NMOC | Non-methane Organic Compounds |
| MDEQ | Michigan Department of Environmental Quality | $NO_x$ | Oxides of Nitrogen |
| | | ng | Nanogram |
| MSDS | Material Safety Data Sheet | PM | Particulate Matter |
| NA | Not Applicable | PM10 | Particulate Matter equal to or less than 10 microns in diameter |
| NAAQS | National Ambient Air Quality Standards | | |
| 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 | psia | Pounds per square inch absolute |
| PTI | Permit to Install | psig | Pounds per square inch gauge |
| RACT | Reasonable Available Control Technology | scf | Standard cubic feet |
| ROP | Renewable Operating Permit | sec | Seconds |
| SC | Special Condition | $SO_2$ | Sulfur Dioxide |
| SCR | Selective Catalytic Reduction | TAC | Toxic Air Contaminant |
| SNCR | Selective Non-Catalytic Reduction | Temp | Temperature |
| SRN | State Registration Number | THC | Total Hydrocarbons |
| TEQ | Toxicity Equivalence Quotient | tpy | Tons per year |
| USEPA/EPA | United States Environmental Protection Agency | µg | Microgram |
| | | µm | Micrometer or Micron |
| VE | Visible Emissions | 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

Permittee shall implement a Fugitive Dust Control Plan to include but not be limited to the following:

a. A representative of the Sagola environmental department will conduct a weekly inspection of the grounds; this will be documented with a checklist. The checklist is located in the Sagola OSB "Air Pollution Control Equipment Inspection and Maintenance Document" kept in the Plant Environmental Manager's Office.

b. The doors on the fire and ash dumps will be kept closed whenever they are not being emptied. Also, the adjacent area will be kept relatively clean and free of flake(s), fines and ash.

c. All ash and fines shall be stored, removed and handled in a manner that minimizes the introduction of it to the ambient air. Fines will be mixed and stored with wet bark if it is necessary to remove it from the fire dump. Ash will not be transported to the storage area during high wind conditions and will be wetted before transport.

d. The pavement will be swept routinely to reduce fugitive dust. This will be documented in the log yard logbook.

e. The bark hog area will be cleaned routinely to reduce fugitive dust. The covers will be closed on all conveyors. Catwalks will be kept clean and bark socks must be intact.

f. All material spills will be cleaned up as soon as possible to prevent its release into the ambient air.

g. The traffic area of the log yard will be watered as needed. This will be documented in the log yard logbook. Personnel working outside will assess the need and initiate watering as needed.

h. No open burning shall be allowed on plant property except as allowed in Rule 310.

### Appendix 4. Recordkeeping

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

### Appendix 5. Testing Procedures

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

### Appendix 6. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-N1315-2013. 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.

| Permit to Install Number | ROP Revision Application Number | Description of Equipment or Change | Corresponding Emission Unit(s) or Flexible Group(s) |
|---|---|---|---|
| 148-13 | NA | Increase opacity limits on EUPRESS and FGDRYERS from 5% to 20% | EUPRESS FGDRYERS |

## 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 **FG-DRYERS Emissions.**

## FG-DRYERS Emissions

Emission Calculation Method:

FG-DRYERS NOx, CO, and VOC emission rates are based on tested emission factors and AP-42 emission factors, in pounds per ton finished product (lb/TFP). The emission factors are multiplied by the respective amount of softwood and hardwood utilized, in TFP. The dryers are permitted for both hardwood and softwood. Because it is not reasonable to assume 100 percent utilization of softwood under the current operating scenario, a calculated emission factor, using the amount of hardwood and softwood and their respective emission factors, will be used to determine compliance with the emission limits. If tested emission factors are lower than those listed in this section, the test emissions factors may be used in the calculations.
Calculation for NOx emissions:

| | | |
|---|---|---|
| $EF_{hardwood}$ (lb/TFP)<br>$EF_{softwood}$ (lb/TFP) | = | 0.62 lb per ton finished product, for hardwood,<br>1.24 lbs per ton finished product, for softwood |
| Annual FG-DRYERS NOx emissions (tons/12 month rolling time period as determined at the end of each calendar month) | = | $\sum_{i=1}^{12} \frac{(EF_{hardwood} * TFP_{hardwood}) + (EF_{softwood} * TFP_{softwood})}{2000}$<br>TFP $_{Hardwood}$= the amount of hardwood dried in FG-DRYER during calendar month i, in Tons Finished Product<br>TFP $_{Softwood}$= the amount of softwood dried in FG-DRYER during calendar month i, in Tons Finished Product. |

Calculation for CO emissions:

| | | |
|---|---|---|
| $EF_{hardwood}$ (lb/TFP)<br>$EF_{softwood}$ (lb/TFP) | = | 3.64 lbs per ton finished product, for hardwood,<br>4.39 lbs per ton finished product, for softwood, |
| Annual FG-DRYERS CO emissions (tons/12 month rolling time period as determined at the end of each calendar month) | = | $\sum_{i=1}^{12} \frac{(EF_{hardwood} * TFP_{hardwood}) + (EF_{softwood} * TFP_{softwood})}{2000}$<br>TFP $_{Hardwood}$= the amount of hardwood dried in FG-DRYER during calendar month i, in Tons Finished Product |

| | | |
|---|---|---|
| | | TFP $_{Softwood}$= the amount of softwood dried in FG-DRYER during calendar month i, in Tons Finished Product. |

Calculation for VOC emissions:

| | | |
|---|---|---|
| $EF_{hardwood}$ (lb/TFP)<br>$EF_{softwood}$ (lb/TFP) | = | 0.29 lbs per ton finished product, for hardwood,<br>0.37 lbs per ton finished product, for softwood, |
| Annual FG-DRYERS VOC emissions (tons/12 month rolling time period as determined at the end of each calendar month) | = | $\sum_{i=1}^{12} \frac{(EF_{hardwood} * TFP_{hardwood}) + (EF_{softwood} * TFP_{softwood})}{2000}$<br>Hardwood $_{Percent}$ = the percentage of hardwood being dried in FG-DRYER at the time of the stack test<br>Softwood $_{Percent}$ = the percentage of softwood being dried in FG-DRYER at the time of the stack test |

## Appendix 8. Reporting

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

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

### B. Other Reporting

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

# Attachment 4

| | | |
|---|---|---|
| LP BUILDING SOLUTIONS | **LOUISIANA-PACIFIC CORPORATION**<br>**SAGOLA PLANT**<br>**FUGITIVE DUST CONTROL PLAN** | Date: 1/18/23<br>Page No.: 1 of 1 |

## INTRODUCTION

Louisiana-Pacific Corporation Sagola Plant is an orientated strand board (OSB) manufacturing facility that produces siding and similar specialty engineered wood panel products. The Sagola Plant operates under Renewable Operating Permit MI-ROP-N1315-2018.

## INTENT

This Fugitive Dust Control Plan details practices that ensure that fugitive dust from roadways, material storage piles, stockpile areas, and other operational areas throughout the plant-site are effectively managed and controlled.

## PRACTICE

An LP representative conducts routine inspections of the plant-site to ensure control of fugitive dust and that corrective actions are completed by assigned personnel when conditions warrant. These periodic inspections are documented and filed in the plant EMS (Environment Management System).

The doors on the fire and ash dumps are closed whenever they are not being emptied. Also, the adjacent area is kept clean and free of flake, fines, and ash.

All ash and fines shall be stored, removed, and managed in a manner that minimizes the introduction of particulate into the ambient air. Fines will be mixed and stored with wet bark if it is necessary to remove from the fire dump. Ash will not be transported to the storage area during high wind conditions and will be wetted, if needed, before transport.

Paved areas are swept routinely to reduce fugitive dust. This activity is documented in the plant EMS.

The bark hog area is cleaned routinely to reduce fugitive dust. The covers are required to be closed on all conveyors. Catwalks are kept clean and bark socks must be intact.

All material spills are cleaned up as soon as possible to prevent release into the ambient air.

The plant grounds are watered, as needed. Personnel working outside will assess the need and initiate watering as needed. This activity is documented in the plant EMS.

Open burning will not occur on the plant-site property except as allowed in Rule 310.

# Compliance Assurance Monitoring Plan

## Louisiana-Pacific Corporation

February 2023

**Prepared For:**

Louisiana Pacific Corporation
Sagola, Michigan

**Prepared By:**

TRC
660 Cascade West Pkwy
Suite 105
Grand Rapids, MI 49546

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# 1.0 Introduction

This Compliance Assurance Monitoring (CAM) Plan addresses the requirements of 40 CFR Part 64 and satisfies the CAM requirements for the Louisiana–Pacific Corporation (LP) facility located in Sagola, Michigan. The monitoring, documentation and maintenance information found in this plan was obtained from the facilities Standard Operating Procedures (SOPs) for the emission control devices. This plan was created to demonstrate the facility's SOPs provide all of the information required in the CAM plans. The facility's SOPs contain the most up to date information; the CAM plans may not always be updated.

LP manufactures oriented strand board (OSB) and siding product in Sagola, Michigan, under Michigan Department of Environment, Great Lakes, and Energy (ELGE) Air Quality Division (AQD) Renewable Operating Permit (ROP) Number MI-ROP-N1315-2018 and Permit to Install (PTI) 24-22A. Equipment within the facility is grouped by process operations into emission units for permitting purposes. The emission units and flexible groups identified by the existing permits for LP include:

- EUFORMING – A forming line system including the blenders, formers, flying cutoff saw, and forming line
- FGDRYERS - Three single pass wood flake dryers, each with a process cyclone to collect PM
- FGBH1 – A baghouse controlling particulate emissions from EUSCREENS, EUFORMING, EUSAWLINE, EUTGPATTERN, EUSANDER, EUHAMMERMILL1, and EUFUELBIN
- FGBH2 – A baghouse controlling particulate emissions from EUFORMING
- FGBH3 – A baghouse controlling particulate emissions from EUPULVERIZNG1, EUPULVERIZNG2, EUHAMMERMILL1, EUFUELBIN and fuel fines material transfer
- FGBH4 – A baghouse controlling particulate emissions from EUSAWLINE
- FGBH5 - A baghouse controlling particulate emissions from EUOVERFINES, EUSAWLINE, EUPANELLINE, EULAPLANE1, EULAPLANE2, EUTGPATTERN, EUSANDER and fuel fines material transfer
- FGBH6 - A baghouse controlling particulate emissions from EUPANELLINE, EULAPLANE1, and EULAPLANE2
- FGBH7 - A baghouse controlling particulate emissions from EUPATTERN and EUSANDER
- FGBH8 - A baghouse controlling particulate emissions from EUVSLINE and EUHOG
- FGFACILITY – Source-wide conditions for all process equipment including equipment covered by other permits, grand-fathered, or exempt equipment

## 2.0 CAM Requirement by Applicability

Per 40 CFR 64.2(a), the CAM requirement applies to each pollutant-specific emission unit (PSEU) at a major source that is required to obtain a part 70 permit if the unit satisfies all of the following criteria:

1. The unit is subject to an emissions limitation or standard for the applicable regulated air pollutant.
2. The unit uses a control device to achieve compliance with any such emission limitation or standard; and
3. The unit has "potential pre-control device emissions" of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.
4. The unit is not exempted by the rule, or has emission limitations or standards not exempted by the rule.

LP is a major source and is required to obtain a Part 70 permit. Permit number MI-ROP-N1315-2018, issued by the Michigan Department of Environmental Quality, identifies emission units based on process groupings. For example, Unit/Group ID EUFORMING consists of several individual emissions units that are grouped together based on being part of the forming line. In many cases, there are several process units in an individual grouping that are controlled with one control device. In these cases, pre-control potential emissions are based on the entire collection of process units controlled by a common control device. This approach is conservative and consistent with the emission limits specified in permit number MI-ROP-N1315-2018.

Emission unit EUFORMING is controlled by two baghouses FGBH1 and FGHB2 and CAM requirements for this emission unit will be satisfied by complying with the CAM requirements for FGBH1 and FGBH2.

Flexible group FGFACILITY does not use control devices to meet an emission limitation and are therefore exempt from CAM requirements.

The remaining emission units identified in the operating permit were evaluated to determine if they have maximum potential pre-control device emissions greater than the major source threshold for at least one pollutant. In general, the potential uncontrolled emissions were conservatively estimated by dividing the ROP emission limits by one minus the typical control device efficiency. The results of the analysis were clear as the potential pre-control emissions were well above the major source threshold or well below the major sources threshold for units in question. Table 1 contains the results of this evaluation.

FGBH3 (controlling EUPULVERIZNG1, EUPULVERIZNG2, EUHAMMERMILL1, EUFUELBIN and fuel fines material transfer) have potential pre-control device emissions that are below the major source threshold and are therefore exempt from CAM requirements.

As a result of the CAM applicability review, the following emission units require CAMplans:

- FGDRYERS: CAM plan required for PM and PM-10 emission limits utilizing a wet electrostatic precipitator (WESP) as the control device.
- FGBH1: CAM plan required for PM and PM-10 emission limits utilizing a baghouse as the control device.
- FGBH2: CAM plan required for PM and PM-10 emission limits utilizing a baghouse as the control device.
- FGBH4: CAM plan required for PM and PM-10 emission limits utilizing a baghouse as the control device.
- FGBH5: CAM plan required for PM and PM-10 emission limits utilizing a baghouse as the control device.
- FGBH6: CAM plan required for PM and PM-10 emission limits utilizing a baghouse as the control device.
- FGBH7: CAM plan required for PM and PM-10 emission limits utilizing a baghouse as the control device.
- FGBH8: CAM plan required for PM and PM-10 emission limits utilizing a baghouse as the control device.

# 3.0 CAM Plans by Type of Emission Control Device

## 3.1 Wet Electrostatic Precipitators for Particulate Control

FGDRYERS utilizes a WESP to the control particulate emissions as required under the permit. Transformer voltage, quench outlet temperature, and quench inlet temperature will be used as the compliance indicators. The details of the CAM Plan for this PSEU are in Section 6.

## 3.2 Baghouse for Particulate Control

EUFORMING, FGBH1, FGBH2, FGBH3, FGBH4, FGBH5, FGBH6, FGBH7, and FGBH8 utilize baghouses to control particulate matter emissions as required under the permit. Baghouse differential pressure and visible emission observations for the baghouses will be used as the compliance indicators. The details of the CAM Plans for these PSEUs are included in Sections 8 through 12.

**Table 1**
**Potential Emissions Summary**

| Emission Unit or Flexible Group* | Control | Pollutant | Permit Limits | Estimated Control Efficiency | Estimated Pre-Control Emission (Ton/Year)** | Potential Major Source? (Y or N) |
|---|---|---|---|---|---|---|
| FGDRYERS | Wet Electrostatic Precipitator | PM | 10.0 pph | 99% | 4,380.0 | **Y** |
| | | PM10 | 10.0 pph | 99% | 4,380.0 | **Y** |
| | | PM2.5 | 10.0 pph | 99% | 4,380.0 | **Y** |
| FGBH1 | Baghouse | PM | 0.39 pph | 99% | 170.82 | **Y** |
| | | PM10 | 0.39 pph | 99% | 170.82 | **Y** |
| | | PM2.5 | 0.39 pph | 99% | 170.82 | **Y** |
| FGBH2 | Baghouse | PM | 0.36 pph | 99% | 157.68 | **Y** |
| | | PM10 | 0.36 pph | 99% | 157.68 | **Y** |
| | | PM2.5 | 0.36 pph | 99% | 157.68 | **Y** |
| FGBH3 | Baghouse | PM | 0.21 pph | 99% | 91.98 | **N** |
| | | PM10 | 0.21 pph | 99% | 91.98 | **N** |
| | | PM2.5 | 0.21 pph | 99% | 91.98 | **N** |
| FGBH4 | Baghouse | PM | 0.39 pph | 99% | 170.82 | **Y** |
| | | PM10 | 0.39 pph | 99% | 170.82 | **Y** |
| | | PM2.5 | 0.39 pph | 99% | 170.82 | **Y** |
| FGBH5 | Baghouse | PM | 0.47 pph | 99% | 205.86 | **Y** |
| | | PM10 | 0.47 pph | 99% | 205.86 | **Y** |
| | | PM2.5 | 0.47 pph | 99% | 205.86 | **Y** |
| FGBH6 | Baghouse | PM | 0.51 pph | 99% | 223.38 | **Y** |
| | | PM10 | 0.51 pph | 99% | 223.38 | **Y** |
| | | PM2.5 | 0.51 pph | 99% | 223.38 | **Y** |
| FGBH7 | Baghouse | PM | 0.39 pph | 99% | 170.82 | **Y** |
| | | PM10 | 0.39 pph | 99% | 170.82 | **Y** |
| | | PM2.5 | 0.39 pph | 99% | 170.82 | **Y** |
| FGBH8 | Baghouse | PM | 0.47 pph | 99% | 205.86 | **Y** |
| | | PM10 | 0.47 pph | 99% | 205.86 | **Y** |
| | | PM2.5 | 0.47 pph | 99% | 205.86 | **Y** |

* Only process unit/pollutant combinations with applicable emission limits and control devices listed.

** Assume units operate 8,760 hours per year.

# 4.0 CAM Plan for FGDRYERS, Wet Electrostatic Precipitator

## 4.1 Background

### *4.1.1 Emission Unit*

Description: Three single pass wood flake dryers, each with a process cyclone.

Identification: FGDRYERS

Facility: Louisiana-Pacific Corporation

N8504 Highway M-95

Sagola, Michigan

### *4.1.2 Applicable Regulation, Emission Limit, Monitoring Requirements*

Permit No: MI-ROP-N1315-2018

Emission Limits

| | |
|---|---|
| Particulate Matter: | PM: 0.007 gr/dscf, R336.1331<br>PM: 10.0 pph, R336.1301<br>PM-10: 0.007 gr/dscf, 40 CFR 52.21(c), (d) and (j)<br>PM-10: 10.0 pph, 40 CFR 52.21(c), (d) and (j) |
| Opacity: | 20%, (R 336.1301(1)(a))) |
| Monitoring Requirements: | Transformer voltage, Quench outlet temperature, Quench inlet temperature |

### *4.1.3 Control Technology*

Wet Electrostatic Precipitator

## 4.2 Monitoring Approach

| | Transformer Voltage | Quench Inlet Temperature | Quench Outlet Temperature |
|---|---|---|---|
| **A. Indicator** | Record the transformer voltage for both transformers on each WESP twice per shift. [SOP 410] | Quench inlet temperature will be recorded twice per 12-hour shift. [SOP 410] | Quench outlet temperature will be recorded twice per 12-hour shift. [SOP 410] |
| **B. Indicator Range** | Target voltage range is 40-70 kV. It is normal for the voltage to drop below 40kV during flushes, startup, and troubleshooting, but for no longer than one hour while the corresponding dryer is operational. The dryer is considered operational when the wet bin live bottom is feeding flake to the dryer. The operator must shut down the corresponding wet bin live bottom if the upset condition is not corrected. Excursions trigger the Shift Supervisor to be notified and a reportable events form must be filled out and turned into the plant Environmental Manager. [SOP 410] | Record the inlet temperature of the quench duct. The inlet temperature range is 200-310 °F. Excursions trigger the Shift Supervisor to be notified and a reportable events form must be filled out and turned into the plant Environmental Manager. [SOP 410] | Record the outlet temperature of the quench duct. The outlet temperature range is 130-190 °F. Excursions trigger the Shift Supervisor to be notified and a reportable events form must be filled out and turned into the plant Environmental Manager. [SOP 410] |
| **C. QIP Threshold** | Optional, not included at this time. | Optional, not included at this time. | Optional, not included at this time. |

## 4.3 Performance Criteria

| | Transformer Voltage | Quench Inlet Temperature | Quench Outlet Temperature |
|---|---|---|---|
| **A. Data Representativeness** | The voltage is recorded from the digital readout on the wheel chart recorder. [SOP 410] | Measurements are made through digital read-outs located in the Dryer Control Room. [SOP 410] | Measurements are made through digital read-outs located in the Dryer Control Room. [SOP 410] |
| **B. Verification of Operational Status** | NA | NA | NA |
| **C. QA/QC Practices and Criteria** | The transformer oil is tested for dielectric strength periodically. [SOP 426] | The thermocouple gauges are inspected yearly. [SOP 426] | The thermocouple gauges are inspected yearly. [SOP 426] |
| **D. Monitoring Frequency** | Transformer voltage is monitored continuously. | Quench inlet temperature is monitored continuously. | Quench outlet temperature is monitored continuously. |
| **E. Data Collection Procedure** | Transformer voltage is manually recorded twice per shift for both transformers. [SOP 410] Monitoring data is also recorded in Active Factory. | Quench inlet temperature is manually recorded twice per shift. [SOP 410] Monitoring data is also recorded in Active Factory. | Quench outlet temperature is manually recorded twice per shift. [SOP 410] Monitoring data is also recorded in Active Factory. |
| **Averaging Period** | NA | NA | NA |

## 4.4 Justification

### *4.4.1 Rational for Selection of Performance Indicator*

A WESP is designed to operate at a relatively constant voltage. A significant decrease in voltage is indicative of a change in operating conditions that could lead to an increase in emissions. Low voltage can indicate electrical shorts or poor contacts that require maintenance or repair of electrical components. However, the regular flush cycles the WESPs undergo to remove the particulate from the collection surfaces may also cause drops in voltage of short duration. These brief voltage drops are part of the normal operation of the WESP.

Monitoring gas stream temperature can provide useful information about the performance of a WESP. Quench inlet temperature primarily is an indication that the inlet gas stream is not so hot that a fire may develop in the duct work or WESP. In addition, the gas stream needs to be cooled in order for some of the pollutants to condense. The WESP outlet temperature indicates that the gas stream has been sufficiently saturated to provide for efficient particle removal and that the water sprays prior to the WESP inlet is functioning. High outlet temperatures could be the result of plugged nozzles, malfunctioning pumps, or broken or plugged piping.

### 4.4.2 Rational for Selection of Indicator Ranges

The indicator level for the WESP voltage was selected based upon the level maintained during normal operation. Typical operating voltages range from 40 to 70 kV. During a malfunction (such as an electrical short), the WESP voltage levels are appreciably lower than normal operational levels. The voltage also drops for a short period during the normal flush cycles that are performed every few hours to clean the tube surface where particulate is collected.

The indicator levels for the quench inlet and outlet gas temperatures also were selected based on levels maintained during normal operation. High temperatures may indicate a fire in the dryer or ductwork or a lack of water flow to the WESP. Temperature action levels were selected that are slightly higher than normal operating temperatures. If the water flow to the WESP is lost, the WESP outlet temperature will begin to approach the inlet temperature, which is much higher than 190°F.

### 4.4.3 Performance Test

Performance testing is not required in the ROP for this unit.

# 5.0 CAM Plan for FGBH1, Baghouse

## 5.1 Background

### *5.1.1 Emission Unit*

Description: A baghouse controlling particulate emissions from EUSCREENS, FGBH2, FGBH4, and FGBH7.

Identification: FGBH1

Facility: Louisiana-Pacific Corporation
N8504 Highway M-95
Sagola, Michigan

### *5.1.2 Applicable Regulation, Emission Limit, Monitoring Requirements*

Permit No: PTI24-22A

Emission Limits

| | |
|---|---|
| Particulate Matter: | PM10: 0.39 PPH, R 336.2803, R 336.2804<br>PM2.5:0.39 PPH, R 336.2803, R 336.2804 |
| Opacity: | 20%, (R 336.1301(1)) |

Monitoring Requirements: Visible emissions, Differential pressure

## 5.2 Monitoring Approach

| | Visible Emissions | Differential Pressure |
|---|---|---|
| **A. Indicator** | Visible emission (VE) will be monitored daily using a 1 minute VE or no-VE check. [SOP 410] | Differential pressure will be recorded once per 12-hour shift. [SOP DF 2.3] |
| **B. Indicator Range** | An excursion is defined as the presence of visible emissions. Excursions trigger the equipment to be shutdown, an inspection, corrective action, and a reporting requirement. [SOP 410] | An excursion is defined as a reading outside of the operating range of 0.1 to 10.0 inch $H_2O$. A recordable events form is to be completed and the shift supervisor is to be notified if the differential parameter is outside the operating range. Excursions trigger the Shift Supervisor to be notified and a reportable events form must be filled out and turned into the plant Environmental Manager. [SOP DF 2.3] |
| **C. QIP Threshold** | Optional, not included at this time. | Optional, not included at this time. |

## 5.4 Performance Criteria

| | Visible Emissions | Differential Pressure |
|---|---|---|
| **A. Data Representativeness** | Measurements are made at the baghouse exhaust. [SOP 410] | Measurements are made at the digital read-out located in the Dryer control room. [SOP DF 2.3] |
| **B. Verification of Operational Status** | NA | NA |
| **C. QA/QC Practices and Criteria** | The observer will be familiar with baghouse operations and visible emissions. | Yearly, the proper operation of the magnehelic is verified with a second gauge. [SOP 434] |
| **D. Monitoring Frequency** | VE (Yes or No) observation is performed daily. [SOP 410] | Pressure drop is monitored continuously. |
| **E. Data Collection Procedure** | The VE observation is documented by the observer and recorded daily. [SOP 410] | Pressure drop is manually recorded once per 12-hour shift. [SOP DF 2.3] Monitoring data is also recorded in Active Factory. |
| **Averaging Period** | NA | NA |

## 5.5 Justification

### *5.5.1 Rational for Selection of Performance Indicators*

Visible emissions and pressure drop were selected as performance indicators because they are indicative of good operation and maintenance of the baghouse. When the baghouse is operating properly, there will not be any visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

In general, baghouses are designed to operate at a relatively constant pressure drop. Monitoring pressure drop provides a means of detecting a change in operation that could lead to an increase in emissions. An increase in pressure drop can indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged, the bags are becoming inefficient, or the air flow has increased. A decrease in pressure drop may indicate broken or loose bags, but this is also indicated by the presence of visible emissions. A pressure drop across the baghouse also serves to indicate that there is airflow through the control device.

### *5.5.2 Rational for Selection of Indicator Ranges*

The selected indicator range is the presence of no visible emissions. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions and a monitoring technique which does not require a Method 9 certified observer is desired. If visible emissions increase to the point of being abnormal, then baghouse performance is deteriorating and corrective action will be initiated to return the baghouse performance to normal.

The indicator range chosen for the baghouse pressure drop is between 0.1 and 10.0 inches $H_2O$. As the pressure drop approaches 10.0 inches $H_2O$ the bags need to be replaced. If the pressure drop falls below 0.1 inches $H_2O$ during normal process operation, the bags may have fallen off their cages.

### *5.5.3 Performance Test*

Performance testing is required to be conducted within 180 days of commencement of initial startup and as requested by the EGLE-AQD Administrator thereafter according to the methods listed in 40 CFR Part 51, Appendix M.

# 6.0 CAM Plan for FGBH2, Baghouse

## 6.1 Background

### *6.1.1 Emission Unit*

Description: A baghouse controlling particulate emissions from EUFORMING.

Identification: FGHB2

Facility: Louisiana-Pacific Corporation
N8504 Highway M-95
Sagola, Michigan

### *6.1.2 Applicable Regulation, Emission Limit, Monitoring Requirements*

Permit No: PTI 24-22A

Emission Limits

Particulate Matter: PM10: 0.36 pph, R 336.2803, R 336.2804
PM2.5 0.36 pph, R 336.2803, R 336.2804

Opacity: 20%, (R 336.1301(1))

Monitoring Requirements: Visible emissions, Differential pressure

## 6.2 Monitoring Approach

| | Visible Emissions | Differential Pressure |
|---|---|---|
| **A. Indicator** | Visible emission (VE) will be monitored daily using a 1 minute VE or no-VE check. [SOP 410] | Differential pressure will be recorded once per 12-hour shift. [SOP DF 2.3] |
| **B. Indicator Range** | An excursion is defined as the presence of visible emissions. Excursions trigger the equipment to be shutdown, an inspection, corrective action, and a reporting requirement. [SOP 410] | An excursion is defined as a reading outside of the operating range of 0.1 to 10.0 inch $H_2O$. A recordable events form is to be completed and the shift supervisor is to be notified if the differential parameter is outside the operating range. Excursions trigger the Shift Supervisor to be notified and a reportable events form must be filled out and turned into the plant Environmental Manager. [SOP DF 2.3] |
| **C. QIP Threshold** | Optional, not included at this time. | Optional, not included at this time. |

## 6.3 Performance Criteria

| | Visible Emissions | Differential Pressure |
|---|---|---|
| **A. Data Representativeness** | Measurements are made at the baghouse exhaust. [SOP 410] | Measurements are made at the magnehelic gauge on the south side of the baghouse at ground level. [SOP DF 2.3] |
| **B. Verification of Operational Status** | NA | NA |
| **C. QA/QC Practices and Criteria** | The observer will be familiar with baghouse operations and visible emissions. | Yearly, the proper operation of the magnehelic is verified with a second gauge. [SOP 437] |
| **D. Monitoring Frequency** | VE (Yes or No) observation is performed daily. [SOP 410] | Pressure drop is monitored continuously. |
| **E. Data Collection Procedure** | The VE observation is documented by the observer and recorded daily. [SOP 410] | Pressure drop is manually recorded once per 12-hour shift. [SOP DF 2.3] Monitoring data is also recorded in Active Factory. |
| **Averaging Period** | NA | NA |

## 6.4 Justification

### *6.4.1 Rational for Selection of Performance Indicators*

Visible emissions and pressure drop were selected as performance indicators because they are indicative of good operation and maintenance of the baghouse. When the baghouse is operating properly, there will not be any visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

In general, baghouses are designed to operate at a relatively constant pressure drop. Monitoring pressure drop provides a means of detecting a change in operation that could lead to an increase in emissions. An increase in pressure drop can indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged, the bags are becoming inefficient, or the air flow has increased. A decrease in pressure drop may indicate broken or loose bags, but this is also indicated by the presence of visible emissions. A pressure drop across the baghouse also serves to indicate that there is airflow through the control device.

### 6.4.2 Rational for Selection of Indicator Ranges

The selected indicator range is the presence of no visible emissions. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions and a monitoring technique which does not require a Method 9 certified observer is desired. If visible emissions increase to the point of being abnormal, then baghouse performance is deteriorating, and corrective action will be initiated to return the baghouse performance to normal.

The indicator range chosen for the baghouse pressure drop is between 0.1 and 10.0 inches $H_2O$. As the pressure drop approaches 10.0 inches $H_2O$ the bags need to be replaced. If the pressure drop falls below 0.1 inches $H_2O$ during normal process operation, the bags may have fallen off their cages.

### 6.4.3 Performance Test

Performance testing is required to be conducted within 180 days of commencement of initial startup and as requested by the EGLE-AQD Administrator thereafter according to the methods listed in 40 CFR Part 51, Appendix M.

# 7.0 CAM Plan for FGBH4, Baghouse

## 7.1 Background

### *7.1.1 Emission Unit*

Description: A baghouse controlling particulate emissions from EUSAWLINE.

Identification: FGBH4

Facility: Louisiana-Pacific Corporation
N8504 Highway M-95
Sagola, Michigan

### *7.1.2 Applicable Regulation, Emission Limit, Monitoring Requirements*

Permit No: PTI 24-22A

Emission Limits

Particulate Matter: PM10: 0.39 pph, R 336.2803, R 336.2804
PM2.5: 0.39 pph, R 336.2803,R 336.2804

Opacity: 20%, (R 336.1301(1))

Monitoring Requirements: Visible emissions, Differential pressure

## 7.2 Monitoring Approach

| | Visible Emissions | Differential Pressure |
|---|---|---|
| **A. Indicator** | Visible emission (VE) will be monitored daily using a 1 minute VE or no-VE check. [SOP 410] | Differential pressure will be recorded once per 12-hour shift. [SOP DF 2.3] |
| **B. Indicator Range** | An excursion is defined as the presence of visible emissions. Excursions trigger the equipment to be shutdown, an inspection, corrective action, and a reporting requirement. [SOP 410] | An excursion is defined as a reading outside of the operating range of 0.1 to 10.0 inch $H_2O$. A recordable events form is to be completed and the shift supervisor is to be notified if the differential parameter is outside the operating range. Excursions trigger the Shift Supervisor to be notified and a reportable events form must be filled out and turned into the plant Environmental Manager. [SOP DF 2.3] |
| **C. QIP Threshold** | Optional, not included at this time. | Optional, not included at this time. |

## 7.3 Performance Criteria

| | Visible Emissions | Differential Pressure |
|---|---|---|
| **A. Data Representativeness** | Measurements are made at the baghouse exhaust. [SOP 410] | Measurements are made at the digital read-out located in the Dryer control room. [SOP DF 2.3] |
| **B. Verification of Operational Status** | NA | NA |
| **C. QA/QC Practices and Criteria** | The observer will be familiar with baghouse operations and visible emissions. | Yearly the proper operation of the magnehelic is verified with a second gauge. [SOP 434] |
| **D. Monitoring Frequency** | VE (Yes or No) observation is performed daily. [SOP 410] | Pressure drop is monitored continuously. |
| **E. Data Collection Procedure** | The VE observation is documented by the observer and recorded daily. [SOP 410] | Pressure drop is manually recorded once per 12-hour shift. [SOP DF 2.3] Monitoring data is also recorded in Active Factory. |
| **Averaging Period** | NA | NA |

## 7.4 Justification

### *7.4.1 Rational for Selection of Performance Indicators*

Visible emissions and pressure drop were selected as performance indicators because they are indicative of good operation and maintenance of the baghouse. When the baghouse is operating properly, there will not be any visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

In general, baghouses are designed to operate at a relatively constant pressure drop. Monitoring pressure drop provides a means of detecting a change in operation that could lead to an increase in emissions. An increase in pressure drop can indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged, the bags are becoming inefficient, or the air flow has increased. A decrease in pressure drop may indicate broken or loose bags, but this is also indicated by the presence of visible emissions. A pressure drop across the baghouse also serves to indicate that there is airflow through the control device.

### *7.4.2 Rational for Selection of Indicator Ranges*

The selected indicator range is the presence of no visible emissions. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions and a monitoring technique which does not require a Method 9 certified observer is desired. If visible emissions increase to the point of being abnormal, then baghouse performance is deteriorating and corrective action will be initiated to return the

baghouse performance to normal.

The indicator range chosen for the baghouse pressure drop is between 0.1 and 10.0 inches $H_2O$. As the pressure drop approaches 10.0 inches $H_2O$ the bags need to be replaced. If the pressure drop falls below 0.1 inches $H_2O$ during normal process operation, the bags may have fallen off their cages.

### *7.4.3 Performance Test*

Performance testing is required to be conducted within 180 days of commencement of initial startup and as requested by the EGLE-AQD Administrator thereafter according to the methods listed in 40 CFR Part 51, Appendix M.

# 8.0 CAM Plan for FGBH5, Baghouse

## 8.1 Background

### *8.1.1 Emission Unit*

Description: A baghouse controlling particulate emissions from EUOVERFINES, EUFORMING (FGBH2), EUPANELLINE, EULAPLANE1, EULAPLANE2 (FGBH6), EUTGPATTERN, and EUSANDER (FGBH7), and fuel fines material transfer.

Identification: FGBH5

Facility: Louisiana-Pacific Corporation
N8504 Highway M-95
Sagola, Michigan

### *8.1.2 Applicable Regulation, Emission Limit, Monitoring Requirements*

Permit No: PTI 24-22A

Emission Limits

| | |
|---|---|
| Particulate Matter: | PM10: 0.47 pph, R 336.2803, R 336.2804<br>PM2.5: 0.47 pph, R 336.2803,R 336.2804 |
| Opacity: | 20%, (R 336.1301(1)) |

Monitoring Requirements: Visible emissions, Differential pressure

## 8.2 Monitoring Approach

| | Visible Emissions | Differential Pressure |
|---|---|---|
| **A. Indicator** | Visible emission (VE) will be monitored daily using a 1 minute VE or no-VE check. [SOP 410] | Differential pressure will be recorded once per 12-hour shift. [SOP DF 2.3] |
| **B. Indicator Range** | An excursion is defined as the presence of visible emissions. Excursions trigger the equipment to be shutdown, an inspection, corrective action, and a reporting requirement. [SOP 410] | An excursion is defined as a reading outside of the operating range of 0.1 to 10.0 inch $H_2O$. A recordable events form is to be completed and the shift supervisor is to be notified if the differential parameter is outside the operating range. Excursions trigger the Shift Supervisor to be notified and a reportable events form must be filled out and turned into the plant Environmental Manager. [SOP DF 2.3] |
| **C. QIP Threshold** | Optional, not included at this time. | Optional, not included at this time. |

## 8.3 Performance Criteria

| | Visible Emissions | Differential Pressure |
|---|---|---|
| **A. Data Representativeness** | Measurements are made at the baghouse exhaust. [SOP 410] | Measurements are made at the magnehelic gauge by the pulverizer. [SOP DF 2.3] |
| **B. Verification of Operational Status** | NA | NA |
| **C. QA/QC Practices and Criteria** | The observer will be familiar with baghouse operations and visible emissions. | Yearly the proper operation of the magnehelic is verified with a second gauge. [SOP 434] |
| **D. Monitoring Frequency** | VE (Yes or No) observation is performed daily. [SOP 410] | Pressure drop is monitored continuously. |
| **E. Data Collection Procedure** | The VE observation is documented by the observer and recorded daily. [SOP 410] | Pressure drop is manually recorded once per 12-hour shift. [SOP DF 2.3]Monitoring data is also recorded in Active Factory. |
| **Averaging Period** | NA | NA |

## 8.4 Justification

### *8.4.1 Rational for Selection of Performance Indicators*

Visible emissions and pressure drop were selected as performance indicators because they are indicative of good operation and maintenance of the baghouse. When the baghouse is operating properly, there will not be any visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

In general, baghouses are designed to operate at a relatively constant pressure drop. Monitoring pressure drop provides a means of detecting a change in operation that could lead to an increase in emissions. An increase in pressure drop can indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged, the bags are becoming inefficient, or the air flow has increased. A decrease in pressure drop may indicate broken or loose bags, but this is also indicated by the presence of visible emissions. A pressure drop across the baghouse also serves to indicate that there is airflow through the control device.

### *8.4.2 Rational for Selection of Indicator Ranges*

The selected indicator range is the presence of no visible emissions. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions and a monitoring technique which does not require a Method 9 certified observer is desired. If visible emissions increase to the point of being abnormal, then baghouse performance is deteriorating and corrective action will be initiated to return the baghouse performance to normal.

The indicator range chosen for the baghouse pressure drop is between 0.1 and 10.0 inches $H_2O$. As the pressure drop approaches 10.0 inches $H_2O$ the bags need to be replaced. If the pressure drop falls below 0.1 inches $H_2O$ during normal process operation, the bags may have fallen off their cages.

### *8.4.3 Performance Test*

Performance testing is required to be conducted within 180 days of commencement of initial startup and as requested by the EGLE-AQD Administrator thereafter according to the methods listed in 40 CFR Part 51, Appendix M.

# 9.0 CAM Plan for FGBH6, Baghouse

## 9.1 Background

### *9.1.1 Emission Unit*

Description: A baghouse controlling particulate emissions from EUPANELLINE, EULAPLANE1, AND EULAPLANE2.

Identification: FGBH6

Facility: Louisiana-Pacific Corporation
N8504 Highway M-95
Sagola, Michigan

### *9.1.2 Applicable Regulation, Emission Limit, Monitoring Requirements*

Permit No: MI-ROP-N1315-2018

Emission Limits

| | |
|---|---|
| Particulate Matter: | PM10: 0.51 pph, R 336.2803, R 336.2804<br>PM2.5: 0.51 pph, R 336.2803,R 336.2804 |
| Opacity: | 20%, (R 336.1301(1)) |

Monitoring Requirements: Visible emissions, Differential pressure

## 9.2 Monitoring Approach

| | Visible Emissions | Differential Pressure |
|---|---|---|
| **A. Indicator** | Visible emission (VE) will be monitored daily using a 1 minute VE or no-VE check. [SOP 410] | Differential pressure will be recorded once per 12-hour shift. [SOP DF 2.3] |
| **B. Indicator Range** | An excursion is defined as the presence of visible emissions. Excursions trigger the equipment to be shutdown, an inspection, corrective action, and a reporting requirement. [SOP 410] | An excursion is defined as a reading outside of the operating range of 0.1 to 10.0 inch $H_2O$. A recordable events form is to be completed and the shift supervisor is to be notified if the differential parameter is outside the operating range. Excursions trigger the Shift Supervisor to be notified and a reportable events form must be filled out and turned into the plant Environmental Manager. [SOP DF 2.3] |
| **C. QIP Threshold** | Optional, not included at this time. | Optional, not included at this time. |

## 9.3 Performance Criteria

| | Visible Emissions | Differential Pressure |
|---|---|---|
| **A. Data Representativeness** | Measurements are made at the baghouse exhaust. [SOP 410] | Measurements are made at the magnehelic gauge by the pulverizer. [SOP DF 2.3] |
| **B. Verification of Operational Status** | NA | NA |
| **C. QA/QC Practices and Criteria** | The observer will be familiar with baghouse operations and visible emissions. | Yearly the proper operation of the magnehelic is verified with a second gauge. [SOP 434] |
| **D. Monitoring Frequency** | VE (Yes or No) observation is performed daily. [SOP 410] | Pressure drop is monitored continuously. |
| **E. Data Collection Procedure** | The VE observation is documented by the observer and recorded daily. [SOP 410] | Pressure drop is manually recorded once per 12-hour shift. [SOP DF 2.3]Monitoring data is also recorded in Active Factory. |
| **Averaging Period** | NA | NA |

## 9.4 Justification

### *9.4.1 Rational for Selection of Performance Indicators*

Visible emissions and pressure drop were selected as performance indicators because they are indicative of good operation and maintenance of the baghouse. When the baghouse is operating properly, there will not be any visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

In general, baghouses are designed to operate at a relatively constant pressure drop. Monitoring pressure drop provides a means of detecting a change in operation that could lead to an increase in emissions. An increase in pressure drop can indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged, the bags are becoming inefficient, or the air flow has increased. A decrease in pressure drop may indicate broken or loose bags, but this is also indicated by the presence of visible emissions. A pressure drop across the baghouse also serves to indicate that there is airflow through the control device.

### *9.4.2 Rational for Selection of Indicator Ranges*

The selected indicator range is the presence of no visible emissions. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions and a monitoring technique which does not require a Method 9 certified observer is desired. If visible emissions increase to the point of being abnormal, then baghouse performance is deteriorating and corrective action will be initiated to return the

baghouse performance to normal.

The indicator range chosen for the baghouse pressure drop is between 0.1 and 10.0 inches $H_2O$. As the pressure drop approaches 10.0 inches $H_2O$ the bags need to be replaced. If the pressure drop falls below 0.1 inches $H_2O$ during normal process operation, the bags may have fallen off their cages.

### *9.4.3 Performance Test*

Performance testing is required to be conducted within 180 days of commencement of initial startup and as requested by the EGLE-AQD Administrator thereafter according to the methods listed in 40 CFR Part 51, Appendix M.

# 10.0 CAM Plan for FGBH7, Baghouse

## 10.1 Background

### *10.1.1 Emission Unit*

Description: A baghouse controlling particulate emissions from EUTGPATTERN and EUSANDER.

Identification: FGBH7

Facility: Louisiana-Pacific Corporation
N8504 Highway M-95
Sagola, Michigan

### *10.1.2 Applicable Regulation, Emission Limit, Monitoring Requirements*

Permit No: PTI 24-22A

Emission Limits

Particulate Matter: PM10: 0.39 pph, R 336.2803, R 336.2804
PM2.5: 0.39 pph, R 336.2803,R 336.2804

Opacity: 20%, (R 336.1301(1))

Monitoring Requirements: Visible emissions, Differential pressure

## 10.2 Monitoring Approach

| | Visible Emissions | Differential Pressure |
|---|---|---|
| **A. Indicator** | Visible emission (VE) will be monitored daily using a 1 minute VE or no-VE check. [SOP 410] | Differential pressure will be recorded once per 12-hour shift. [SOP DF 2.3] |
| **B. Indicator Range** | An excursion is defined as the presence of visible emissions. Excursions trigger the equipment to be shutdown, an inspection, corrective action, and a reporting requirement. [SOP 410] | An excursion is defined as a reading outside of the operating range of 0.1 to 10.0 inch $H_2O$. A recordable events form is to be completed and the shift supervisor is to be notified if the differential parameter is outside the operating range. Excursions trigger the Shift Supervisor to be notified and a reportable events form must be filled out and turned into the plant Environmental Manager. [SOP DF 2.3] |
| **C. QIP Threshold** | Optional, not included at this time. | Optional, not included at this time. |

## 10.3 Performance Criteria

| | Visible Emissions | Differential Pressure |
|---|---|---|
| **A. Data Representativeness** | Measurements are made at the baghouse exhaust. [SOP 410] | Measurements are made at the magnehelic gauge by the pulverizer. [SOP DF 2.3] |
| **B. Verification of Operational Status** | NA | NA |
| **C. QA/QC Practices and Criteria** | The observer will be familiar with baghouse operations and visible emissions. | Yearly the proper operation of the magnehelic is verified with a second gauge. [SOP 434] |
| **D. Monitoring Frequency** | VE (Yes or No) observation is performed daily. [SOP 410] | Pressure drop is monitored continuously. |
| **E. Data Collection Procedure** | The VE observation is documented by the observer and recorded daily. [SOP 410] | Pressure drop is manually recorded once per 12-hour shift. [SOP DF 2.3]Monitoring data is also recorded in Active Factory. |
| **Averaging Period** | NA | NA |

## 10.4 Justification

### *10.4.1 Rational for Selection of Performance Indicators*

Visible emissions and pressure drop were selected as performance indicators because they are indicative of good operation and maintenance of the baghouse. When the baghouse is operating properly, there will not be any visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

In general, baghouses are designed to operate at a relatively constant pressure drop. Monitoring pressure drop provides a means of detecting a change in operation that could lead to an increase in emissions. An increase in pressure drop can indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged, the bags are becoming inefficient, or the air flow has increased. A decrease in pressure drop may indicate broken or loose bags, but this is also indicated by the presence of visible emissions. A pressure drop across the baghouse also serves to indicate that there is airflow through the control device.

### *10.4.2 Rational for Selection of Indicator Ranges*

The selected indicator range is the presence of no visible emissions. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions and a monitoring technique which does not require a Method 9 certified observer is desired. If visible emissions increase to the point of being abnormal, then baghouse performance is deteriorating and corrective action will be initiated to return the baghouse performance to normal.

The indicator range chosen for the baghouse pressure drop is between 0.1 and 10.0 inches $H_2O$. As the pressure drop approaches 10.0 inches $H_2O$ the bags need to be replaced. If the pressure drop falls below 0.1 inches $H_2O$ during normal process operation, the bags may have fallen off their cages.

### *10.4.3 Performance Test*

Performance testing is required to be conducted within 180 days of commencement of initial startup and as requested by the EGLE-AQD Administrator thereafter according to the methods listed in 40 CFR Part 51, Appendix M.

# 11.0 CAM Plan for FGBH8, Baghouse

## 11.1 Background

### *11.1.1 Emission Unit*

Description: A baghouse controlling particulate emissions from EUVSLINE and EUHOG.

Identification: FGBH8

Facility: Louisiana-Pacific Corporation
N8504 Highway M-95
Sagola, Michigan

### *11.1.2 Applicable Regulation, Emission Limit, Monitoring Requirements*

Permit No: PTI 24-22A

Emission Limits

Particulate Matter: PM10: 0.47 pph, R 336.2803, R 336.2804
PM2.5: 0.47 pph, R 336.2803,R 336.2804

Opacity: 20%, (R 336.1301(1))

Monitoring Requirements: Visible emissions, Differential pressure

### *11.1.3 Control Technology*

Baghouse Dust Collector

## 11.2 Monitoring Approach

| | Visible Emissions | Differential Pressure |
|---|---|---|
| **A. Indicator** | Visible emission (VE) will be monitored daily using a 1 minute VE or no-VE check. [SOP 410] | Differential pressure will be recorded once per 12-hour shift. [SOP DF 2.3] |
| **B. Indicator Range** | An excursion is defined as the presence of visible emissions. Excursions trigger the equipment to be shutdown, an inspection, corrective action, and a reporting requirement. [SOP 410] | An excursion is defined as a reading outside of the operating range of 0.1 to 10.0 inch $H_2O$. A recordable events form is to be completed and the shift supervisor is to be notified if the differential parameter is outside the operating range. Excursions trigger the Shift Supervisor to be notified and a reportable events form must be filled out and turned into the plant Environmental Manager. [SOP DF 2.3] |
| **C. QIP Threshold** | Optional, not included at this time. | Optional, not included at this time. |

## 11.3 Performance Criteria

| | Visible Emissions | Differential Pressure |
|---|---|---|
| **A. Data Representativeness** | Measurements are made at the baghouse exhaust. [SOP 410] | Measurements are made at the magnehelic gauge by the pulverizer. [SOP DF 2.3] |
| **B. Verification of Operational Status** | NA | NA |
| **C. QA/QC Practices and Criteria** | The observer will be familiar with baghouse operations and visible emissions. | Yearly the proper operation of the magnehelic is verified with a second gauge. [SOP 434] |
| **D. Monitoring Frequency** | VE (Yes or No) observation is performed daily. [SOP 410] | Pressure drop is monitored continuously. |
| **E. Data Collection Procedure** | The VE observation is documented by the observer and recorded daily. [SOP 410] | Pressure drop is manually recorded once per 12-hour shift. [SOP DF 2.3] Monitoring data is also recorded in Active Factory. |
| **Averaging Period** | NA | NA |

## 11.4 Justification

### *11.4.1 Rational for Selection of Performance Indicators*

Visible emissions and pressure drop were selected as performance indicators because they are indicative of good operation and maintenance of the baghouse. When the baghouse is operating properly, there will not be any visible emissions from the exhaust. Any increase in

visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

In general, baghouses are designed to operate at a relatively constant pressure drop. Monitoring pressure drop provides a means of detecting a change in operation that could lead to an increase in emissions. An increase in pressure drop can indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged, the bags are becoming inefficient, or the air flow has increased. A decrease in pressure drop may indicate broken or loose bags, but this is also indicated by the presence of visible emissions. A pressure drop across the baghouse also serves to indicate that there is airflow through the control device.

### *11.4.2 Rational for Selection of Indicator Ranges*

The selected indicator range is the presence of no visible emissions. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions and a monitoring technique which does not require a Method 9 certified observer is desired. If visible emissions increase to the point of being abnormal, then baghouse performance is deteriorating and corrective action will be initiated to return the baghouse performance to normal.

The indicator range chosen for the baghouse pressure drop is between 0.1 and 10.0 inches $H_2O$. As the pressure drop approaches 10.0 inches $H_2O$ the bags need to be replaced. If the pressure drop falls below 0.1 inches $H_2O$ during normal process operation, the bags may have fallen off their cages.

### *11.4.3 Performance Test*

Performance testing is required to be conducted within 180 days of commencement of initial startup and as requested by the EGLE-AQD Administrator thereafter according to the methods listed in 40 CFR Part 51, Appendix M.

# Attachment 5

# PERMIT TO INSTALL

## Table of Contents

## COMMON ACRONYMS

| | |
|---|---|
| AQD | Air Quality Division |
| BACT | Best Available Control Technology |
| CAA | Clean Air Act |
| CAM | Compliance Assurance Monitoring |
| CEMS | Continuous Emission Monitoring System |
| CFR | Code of Federal Regulations |
| COMS | Continuous Opacity Monitoring System |
| Department/department/EGLE | Michigan Department of Environment, Great Lakes, and Energy |
| EU | Emission Unit |
| FG | Flexible Group |
| GACS | Gallons of Applied Coating Solids |
| GC | General Condition |
| GHGs | Greenhouse Gases |
| HVLP | High Volume Low Pressure* |
| ID | Identification |
| IRSL | Initial Risk Screening Level |
| ITSL | Initial Threshold Screening Level |
| LAER | Lowest Achievable Emission Rate |
| MACT | Maximum Achievable Control Technology |
| MAERS | Michigan Air Emissions Reporting System |
| MAP | Malfunction Abatement Plan |
| MSDS | Material Safety Data Sheet |
| NA | Not Applicable |
| NAAQS | National Ambient Air Quality Standards |
| NESHAP | National Emission Standard for Hazardous Air Pollutants |
| NSPS | New Source Performance Standards |
| NSR | New Source Review |
| PS | Performance Specification |
| PSD | Prevention of Significant Deterioration |
| PTE | Permanent Total Enclosure |
| PTI | Permit to Install |
| RACT | Reasonable Available Control Technology |
| ROP | Renewable Operating Permit |
| SC | Special Condition |
| SCR | Selective Catalytic Reduction |
| SNCR | Selective Non-Catalytic Reduction |
| SRN | State Registration Number |
| TBD | To Be Determined |
| TEQ | Toxicity Equivalence Quotient |
| USEPA/EPA | United States Environmental Protection Agency |
| VE | Visible Emissions |

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

## POLLUTANT / MEASUREMENT ABBREVIATIONS

| | |
|---|---|
| acfm | Actual cubic feet per minute |
| BTU | British Thermal Unit |
| °C | Degrees Celsius |
| CO | Carbon Monoxide |
| $CO_2e$ | Carbon Dioxide Equivalent |
| dscf | Dry standard cubic foot |
| dscm | Dry standard cubic meter |
| °F | Degrees Fahrenheit |
| gr | Grains |
| HAP | Hazardous Air Pollutant |
| Hg | Mercury |
| hr | Hour |
| HP | Horsepower |
| $H_2S$ | Hydrogen Sulfide |
| kW | Kilowatt |
| lb | Pound |
| m | Meter |
| mg | Milligram |
| mm | Millimeter |
| MM | Million |
| MW | Megawatts |
| NMOC | Non-Methane Organic Compounds |
| $NO_x$ | Oxides of Nitrogen |
| ng | Nanogram |
| PM | Particulate Matter |
| PM10 | Particulate Matter equal to or less than 10 microns in diameter |
| PM2.5 | Particulate Matter equal to or less than 2.5 microns in diameter |
| pph | Pounds per hour |
| ppm | Parts per million |
| ppmv | Parts per million by volume |
| ppmw | Parts per million by weight |
| psia | Pounds per square inch absolute |
| psig | Pounds per square inch gauge |
| scf | Standard cubic feet |
| sec | Seconds |
| $SO_2$ | Sulfur Dioxide |
| TAC | Toxic Air Contaminant |
| Temp | Temperature |
| THC | Total Hydrocarbons |
| tpy | Tons per year |
| µg | Microgram |
| µm | Micrometer or Micron |
| VOC | Volatile Organic Compounds |
| yr | Year |

## GENERAL CONDITIONS

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

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

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

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

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(R 336.1219)**

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

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal condition or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

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

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

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

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

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

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

# EMISSION UNIT SPECIAL CONDITIONS

## EMISSION UNIT SUMMARY TABLE

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

| Emission Unit ID | Emission Unit Description (Including Process Equipment & Control Device(s)) | Installation Date / Modification Date | Flexible Group ID |
|---|---|---|---|
| EUPRESS | Press System (EUPRESS) including the mat forming line with a paper overlay system and the board press. The paper overlay system will unroll, measure, cut, and apply the paper to the formed mat prior to the board press. The board press will include embossing plates to provide the SmartSide® wood grain finish. Emissions from EUPRESS are controlled by a single device that oxidizes VOCs and HAPs either thermally (RTO) or catalytically (RCO). When operating as a RCO a layer of catalyst is placed in the combustion chamber, which allows the oxidation of VOC and HAPs to occur at lower temperatures. If the catalyst deactivates, the RCO can be converted to a RTO simply by increasing the temperature in the combustion chamber. Exposing the catalyst to high temperatures for prolonged periods of time deactivates the catalyst thus a RTO cannot be converted to a RCO unless the new layer of catalyst is placed in the combustion chamber. | 1988 / 1996 / 2004 / 2008 / 2022 | N/A |
| EUFORMING | Forming line system includes blenders, formers, fines blender, fines former, flying cut off saw, mat forming line controlled by baghouse dust collector BH2. | 1988 / 1998 / 2022 | FGBH2, FGBH1 |
| EUSAWLINE | Sawline system includes first and second pass saws and controlled by baghouse dust collector BH4. | 1988 / 1998 / 2022 | FGBH4, FGBH1, FGBH5 |
| EUPULVERIZING1 | #1 Fuel fines pulverizing mill | 2003 | FGBH3 |
| EUPULVERIZING2 | #2 Fuel fines pulverizing mill | 2003 | FGBH3 |
| EUSANDER | Sanding operations controlled by a baghouse dust collector BH7. | 1988 / 1998 | FGBH7, FGBH1, FGBH5 |
| EUTGPATTERN | Tongue and Groove machine controlled by a baghouse dust collector BH7. | 1988 / 1998 | FGBH7, FGBH1, FGBH5 |
| EUHAMMERMILL1 | Primary fuel fines hammermill. | 1988 / 1998 | FGBH7, FGBH1, FGBH5 |
| EUFUELBIN | Fuel fines bin. | 1988 / 2003 | FGBH1, FGBH3 |
| EUPANELLINE | Board (panel) sawing, trimming, scoring, sanding, and finishing controlled by baghouse dust collector BH6. | 2022 | FGBH6, FGBH5 |
| EUPANELOV | Direct heated natural gas-fired oven on the Panel finishing line, total heat input 5.0 million Btu/hr. | 2022 | FGFINISHOVENS |
| EULAPLANE1 | Board (lap) sawing, trimming, scoring, sanding, and finishing controlled by baghouse dust collector BH6. | 2022 | FGBH6, FGBH5 |

| Emission Unit ID | Emission Unit Description (Including Process Equipment & Control Device(s)) | Installation Date / Modification Date | Flexible Group ID |
|---|---|---|---|
| EULAP1OV | Direct heated natural gas-fired oven on the Lap finishing lane 1, total heat input 5.0 million Btu/hr | 2022 | FGFINISHOVENS |
| EULAP1XOV | Direct heated natural gas-fired oven on the Lap finishing lane 1, total heat input 6.3 million Btu/hr. | 2022 | FGFINISHOVENS |
| EULAPLANE2 | Board (lap) sawing, trimming, scoring, sanding, and finishing controlled by baghouse dust collector BH6. | 2022 | FGBH6, FGBH5 |
| EULAP2OV | Direct heated natural gas-fired oven on the Lap finishing lane 2, total heat input 5.0 million Btu/hr. | 2022 | FGFINISHOVENS |
| EULAP2XOV | Direct heated natural gas-fired oven on the Lap finishing lane 2, total heat input 6.3 million Btu/hr. | 2022 | FGFINISHOVENS |
| EUVSLINE | Board (vented soffit) sawing, trimming, sanding, and finishing controlled by baghouse dust collector BH8. | 2022 | FGBH8, FGBH5 |
| EUPRIMER | Non-VOC/HAP primer application on Panel, Lap, and VS lines by high-pressure spray or fan coater. | 2022 | N/A |
| EUHOG | Downgrade hog and room aspirations controlled by baghouse dust collector BH8. | 2022 | FGBH8, FGBH5 |
| EUOVERFINES | Overlay fines hammermill, storage bin, and metering bin controlled by baghouse dust collector BH5. | 2022 | FGBH5 |
| EUSCREENS | Aspiration from rotary screeners, conveyors, and dry bins controlled by baghouse dust collector BH1. | 2022 | FGBH1 |

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

# EUPRESS
# EMISSION UNIT CONDITIONS

## DESCRIPTION

Press System (EUPRESS) including the mat forming line with a paper overlay system and the board press. The paper overlay system will unroll, measure, cut, and apply the paper to the formed mat prior to the board press. The board press will include embossing plates to provide the SmartSide® wood grain finish. Emissions from EUPRESS are controlled by a single device that oxidizes VOCs and HAPs either thermally (RTO) or catalytically (RCO). When operating as a RCO a layer of catalyst is placed in the combustion chamber, which allows the oxidation of VOC and HAPs to occur at lower temperatures. If the catalyst deactivates, the RCO can be converted to a RTO simply by increasing the temperature in the combustion chamber. Exposing the catalyst to high temperatures for prolonged periods of time deactivates the catalyst thus an RTO cannot be converted to a RCO unless the new layer of catalyst is placed in the combustion chamber.

**Flexible Group ID:** NA

## POLLUTION CONTROL EQUIPMENT

RCO or RTO

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. NOx | 43.0 pph | Hourly | EUPRESS | SC V.1 | 40 CFR 52.21 (c), (d), and (j) |
| 2. NOx | 155.0 tpy | 12-month rolling time period as determined at the end of each calendar month | EUPRESS | SC VI.2 | 40 CFR 52.21 (c), (d), and (j) |
| 3. CO | 0.51 lb/TFP | 12-month rolling time period as determined at the end of each calendar month | EUPRESS | SC V.1, and FGFACILITY SC I.1, SC 1.2, SC VI.2 | 40 CFR 52.21 (d) and (j) |
| 4. VOC | 3.44 pph | Hourly | EUPRESS | SC V.1 | R 336.1702(a) |
| 5. VOC | 12.4 tpy | 12-month rolling time period as determined at the end of each calendar month | EUPRESS | SC VI.3 | R 336.1702(a) |
| 6. PM10 | 0.072 lb/TFP | 12-month rolling time period | EUPRESS | SC V.2, SC VI.4, and FGFACILITY SC I.1, SC 1.2, SC VI.2 | 40 CFR 52.21 (c), (d), and (j) |
| 7. PM10 | 2.0 pph | Hourly | EUPRESS | SC V.2 | R 336.2803, R 336.2804 |
| 8. PM2.5 | 2.0 pph | Hourly | EUPRESS | SC V.2 | R 336.2803, R 336.2804 |
| 9. Formaldehyde | 5.91 pph[1] | Hourly | EUPRESS | SC V.1 | R 336.1225 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Except as provided in SC V.3. the permittee shall maintain an hourly average minimum combustion chamber temperature of 800 degrees (RCO) or 1400 degrees (RTO) or not less than the last compliance test temperature that met the applicable VOC emission limitation in SC I.4 during operation of EUPRESS based on a one-hour average for the RCO or RTO that controls EUPRESS. **(R 336.1225, R 336.1702(a), R 336.1910)**

2. Visible emissions from EUPRESS during normal operation (excluding the bake out time period) shall not exceed a six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity. **(R 336.1301(1)(a))**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not produce product in EUPRESS unless the RCO or RTO is operating properly. **(R 336.1910)**

## V. TESTING/SAMPLING

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

1. The permittee shall verify NOx, CO, VOC, and Formaldehyde emission rates from EUPRESS by testing at owner's expense, in accordance with the Department requirements, once every five years from the last test. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| NOx | 40 CFR Part 60, Appendix A |
| CO | 40 CFR Part 60, Appendix A |
| VOC | 40 CFR Part 60, Appendix A |
| Formaldehyde | 40 CFR Part 63, Appendix A |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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(a), R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, 40 CFR 52.21(c), (d), and (j))**

2. Within 180 days after commencement of initial startup and every five years thereafter, the permittee shall verify PM10 and PM2.5 emission rates from EUPRESS by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

3. The permittee may lower the minimum operating temperature in the RCO or RTO below the last compliance test value that met the applicable VOC emission limitation if sufficient data is submitted to the Department that proves that VOC emissions can be maintained under the applicable emission limit at the lower temperature. The permittee may conduct trials at a temperature less than the most recent successful compliance test no more frequently than quarterly to obtain such data. **(R 336.1225, R 336.1702(a), R 336.1910)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor and record the RCO and RTO combustion chamber temperature and the volumetric flow rate through the RCO and RTO on a continuous basis with instrumentation acceptable to the Air Quality Division, except if an alternate method(s) is approved by the District Supervisor, Air Quality Division. **(R 336.1225, R 336.1702(a))**

2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling NOx records for EUPRESS. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205(1)(a), 40 CFR 52.21(c), (d) and (j))**

3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling VOC records for EUPRESS. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205(1)(a), R 336.1225, R 336.1702(a))**

4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling PM10 records for EUPRESS. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205(1)(a), 40 CFR 52.21(c), (d) and (j))**

## VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EUPRESS. **(R 336.1201(7)(a))**

## 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. SVPRESS | 76 | 100 | R 336.1225, R 336.1702, 40 CFR 52.21(c) and (d), R 336.2803, R 336.2804 |

## IX. OTHER REQUIREMENT(S)

NA

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

# FLEXIBLE GROUP SPECIAL CONDITIONS

## 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 |
|---|---|---|
| FGBH1 | A baghouse controlling particulate emissions from EUSCREENS, EUFORMING, EUSAWLINE, EUTGPATTERN, EUSANDER, EUHAMMERMILL1, and EUFUELBIN. | EUSCREENS<br>EUFORMING<br>EUSAWLINE<br>EUTGPATTERN<br>EUSANDER<br>EUHAMMERMILL1<br>EUFUELBIN |
| FGBH2 | A baghouse controlling particulate emissions from EUFORMING. | EUFORMING |
| FGBH3 | A baghouse controlling particulate emissions from EUPULVERIZNG1, EUPULVERIZNG2, EUHAMMERMILL1, EUFUELBIN and fuel fines material transfer. | EUPULVERIZNG1<br>EUPULVERIZNG2<br>EUHAMMERMILL1<br>EUFUELBIN |
| FGBH4 | A baghouse controlling particulate emissions from EUSAWLINE. | EUSAWLINE |
| FGBH5 | A baghouse controlling particulate emissions from EUOVERFINES, EUSAWLINE, EUPANELLINE, EULAPLANE1, EULAPLANE2, EUTGPATTERN, EUSANDER and fuel fines material transfer. | EUOVERFINES<br>EUSAWLINE<br>EUPANELLINE<br>EULAPLANE1<br>EULAPLANE2<br>EUTGPATTERN<br>EUSANDER |
| FGBH6 | A baghouse controlling particulate emissions from EUPANELLINE, EULAPLANE1, and EULAPLANE2. | EUPANELLINE<br>EULAPLANE<br>EULAPLANE2 |
| FGBH7 | A baghouse controlling particulate emissions from EUPATTERN and EUSANDER. | EUTGPATTERN<br>EUSANDER |
| FGBH8 | A baghouse controlling particulate emissions from EUVSLINE and EUHOG. | EUVSLINE<br>EUHOG |
| FGFINISHOVENS | Direct natural gas fired ovens on the Panel finishing line and Lap finishing lanes 1 and 2. | EUPANELOV<br>EULAP1OV<br>EULAP1XOV<br>EULAP2OV<br>EULAP2XOV |
| FGBLRS/HTRS | Two (2) natural gas-fired service water heaters and thirty-nine (39) natural gas-fired air make-up units and space heaters. | NA |

# FGBH1
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUSCREENS, FGBH2, FGBH4, and FGBH7.

**Emission Units:** EUSCREENS, EUFORMING (FGBH2), EUSAWLINE (FGBH4), EUPATTERN and EUSANDER (FGBH7), and EUHAMMERMILL1, and EUFUELBIN

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM10 | 0.39 pph | Hourly | FGBH1 | SC V.1 | R 336.2803, R 336.2804 |
| 2. PM2.5 | 0.39 pph | Hourly | FGBH1 | SC V.1 | R 336.2803, R 336.2804 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate process equipment or emission units controlled by FGBH1, unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse, has been submitted within 30 days of commencement of trial operation, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

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

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

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the process equipment and emission units controlled by FGBH1 unless a gauge, which continuously measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds 10.0 inches water, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup and upon the request of the AQD District Supervisor thereafter, the permittee shall verify PM10 and PM2.5 emission rates from FGBH1 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings for FGBH1 daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collector. Readings do not need to be conducted by a certified VE reader. **(R 336.1301)**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-10.0 inches of $H_2O$. **(R 336.1331)**

## VII. REPORTING

NA

## 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. SVBH1 | 48 | 60 | R 336.1225, R 336.2803, R 336.2804 |

## IX. OTHER REQUIREMENT(S)

NA

# FGBH2
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUFORMING.

**Emission Units:** EUFORMING

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM10 | 0.36 pph | Hourly | FGBH2 | SC V.1 | R 336.2803, R 336.2804 |
| 2. PM2.5 | 0.36 pph | Hourly | FGBH2 | SC V.1 | R 336.2803, R 336.2804 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate process equipment or emission units controlled by FGBH2, unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse, has been submitted within 30 days of commencement of trial operation, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

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

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

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the process equipment and emission units controlled by FGBH2 unless a gauge, which continuously measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds 10.0 inches water, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup and upon the request of the AQD District Supervisor thereafter, the permittee shall verify PM10 and PM2.5 emission rates from FGBH2 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings for FGBH2 daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collector. Readings do not need to be conducted by a certified VE reader. **(R 336.1301)**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-10.0 inches of $H_2O$. **(R 336.1331)**

## VII. REPORTING

NA

## 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. SVBH2 | 48 | 60 | R 336.1225, R 336.2803, R 336.2804 |

## IX. OTHER REQUIREMENT(S)

NA

# FGBH3
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUPULVERIZING1, EUPULVERIZING2, and fuel fines material transfer.

**Emission Units:** EUPULVERIZING1, EUPULVERIZING2, EUHAMMERMILL1 and EUFUELBIN, and fuel fines material transfer.

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM10 | 0.21 pph | Hourly | FGBH3 | SC V.1 | R 336.2803, R 336.2804 |
| 2. PM2.5 | 0.21 pph | Hourly | FGBH3 | SC V.1 | R 336.2803, R 336.2804 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate process equipment or emission units controlled by FGBH3, unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse, has been submitted within 30 days of commencement of trial operation, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

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

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

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the process equipment and emission units controlled by FGBH3 unless a gauge, which continuously measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds 10.0 inches water, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup and upon the request of the AQD District Supervisor thereafter, the permittee shall verify PM10 and PM2.5 emission rates from FGBH3 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings for FGBH3 daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collector. Readings do not need to be conducted by a certified VE reader. **(R 336.1301)**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-10.0 inches of $H_2O$. **(R 336.1331)**

## VII. REPORTING

NA

## 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. SVBH3 | 48 | 60 | R 336.1225, R 336.2803, R 336.2804 |

## IX. OTHER REQUIREMENT(S)

NA

# FGBH4
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUSAWLINE.

**Emission Units:** EUSAWLINE

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM10 | 0.39 pph | Hourly | FGBH4 | SC V.1 | R 336.2803, R 336.2804 |
| 2. PM2.5 | 0.39 pph | Hourly | FGBH4 | SC V.1 | R 336.2803, R 336.2804 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate process equipment or emission units controlled by FGBH4, unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse, has been submitted within 30 days of commencement of trial operation, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

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

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

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the process equipment and emission units controlled by FGBH4 unless a gauge, which continuously measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds 10.0 inches water, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup and upon the request of the AQD District Supervisor thereafter, the permittee shall verify PM10 and PM2.5 emission rates from FGBH4 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings for FGBH4 daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collector. Readings do not need to be conducted by a certified VE reader. **(R 336.1301)**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-10.0 inches of $H_2O$. **(R 336.1331)**

## VII. REPORTING

NA

## 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. SVBH4 | 48 | 80 | R 336.1225, R 336.2803, R 336.2804 |

## IX. OTHER REQUIREMENT(S)

NA

# FGBH5
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUOVERFINES, FGBH4, FGBH6, and FGBH7.

**Emission Units:** EUOVERFINES, EUFORMING (FGBH2), EUPANELLINE, EULAPLANE1, EULAPLANE2 (FGBH6), EUTGPATTERN and EUSANDER (FGBH7), and fuel fines material transfer.

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM10 | 0.47 pph | Hourly | FGBH5 | SC V.1 | R 336.2803, R 336.2804 |
| 2. PM2.5 | 0.47 pph | Hourly | FGBH5 | SC V.1 | R 336.2803, R 336.2804 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate process equipment or emission units controlled by FGBH5, unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse, has been submitted within 30 days of commencement of trial operation, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

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

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

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the process equipment and emission units controlled by FGBH5 unless a gauge, which continuously measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds 10.0 inches water, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup and upon the request of the AQD District Supervisor thereafter, the permittee shall verify PM10 and PM2.5 emission rates from FGBH5 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings for FGBH5 daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collector. Readings do not need to be conducted by a certified VE reader. **(R 336.1301)**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-10.0 inches of $H_2O$. **(R 336.1331)**

## VII. REPORTING

NA

## 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. SVBH5 | 48 | 60 | R 336.1225, R 336.2803, R 336.2804 |

## IX. OTHER REQUIREMENT(S)

NA

# FGBH6
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUPANELLINE, EULAPLANE1, AND EULAPLANE2.

**Emission Units:** EUPANELLINE, EULAPLANE1, AND EULAPLANE2.

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM10 | 0.51 pph | Hourly | FGBH6 | SC V.1 | R 336.2803, R 336.2804 |
| 2. PM2.5 | 0.51 pph | Hourly | FGBH6 | SC V.1 | R 336.2803, R 336.2804 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate process equipment or emission units controlled by FGBH6, unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse, has been submitted within 30 days of commencement of trial operation, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

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

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

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the process equipment and emission units controlled by FGBH6 unless a gauge, which continuously measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds 10.0 inches water, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup and upon the request of the AQD District Supervisor thereafter, the permittee shall verify PM10 and PM2.5 emission rates from FGBH6 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings for FGBH6 daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collector. Readings do not need to be conducted by a certified VE reader. **(R 336.1301)**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-10.0 inches of $H_2O$. **(R 336.1331)**

## VII. REPORTING

NA

## 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. SVBH6 | 48 | 80 | R 336.1225, R 336.2803, R 336.2804 |

## IX. OTHER REQUIREMENT(S)

NA

# FGBH7
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUTGPATTERN and EUSANDER.

**Emission Units:** EUTGPATTERN, EUSANDER

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| | Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|---|
| 1. | PM10 | 0.39 pph | Hourly | FGBH7 | SC V.1 | R 336.2803, R 336.2804 |
| 2. | PM2.5 | 0.39 pph | Hourly | FGBH7 | SC V.1 | R 336.2803, R 336.2804 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate process equipment or emission units controlled by FGBH7, unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse, has been submitted within 30 days of commencement of trial operation, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

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

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

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the process equipment and emission units controlled by FGBH7 unless a gauge, which continuously measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds 10.0 inches water, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup and upon the request of the AQD District Supervisor thereafter, the permittee shall verify PM10 and PM2.5 emission rates from FGBH7 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings for FGBH7 daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collector. Readings do not need to be conducted by a certified VE reader. **(R 336.1301)**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-10.0 inches of $H_2O$. **(R 336.1331)**

## VII. REPORTING

NA

## 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. SVBH7 | 48 | 60 | R 336.1225, R 336.2803, R 336.2804 |

## IX. OTHER REQUIREMENT(S)

NA

# FGBH8
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

A baghouse controlling particulate emissions from EUVSLINE and EUHOG.

**Emission Units:** EUVSLINE, EUHOG

## POLLUTION CONTROL EQUIPMENT

Baghouse dust collector.

## I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. PM10 | 0.47 pph | Hourly | FGBH8 | SC V.1 | R 336.2803, R 336.2804 |
| 2. PM2.5 | 0.47 pph | Hourly | FGBH8 | SC V.1 | R 336.2803, R 336.2804 |

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate process equipment or emission units controlled by FGBH8, unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse, has been submitted within 30 days of commencement of trial operation, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

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

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

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the process equipment and emission units controlled by FGBH8 unless a gauge, which continuously measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop exceeds 10.0 inches water, is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. **(R 336.1301, R 336.1331, R 336.1910)**

## V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup and upon the request of the AQD District Supervisor thereafter, the permittee shall verify PM10 and PM2.5 emission rates from FGBH8 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|---|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall conduct Visible Emission (VE) readings for FGBH8 daily for one minute each at 15 second intervals. The VE readings shall be conducted during daylight hours by a VE reader who is familiar with the dust collector. Readings do not need to be conducted by a certified VE reader. **(R 336.1301)**

2. The permittee shall continuously measure the pressure drop and record once per 12-hour shift as an indicator of proper operation of the dust collector. The indicator range is 0.1-10.0 inches of $H_2O$. **(R 336.1331)**

## VII. REPORTING

NA

## 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 |
|---|---|---|---|
| 14. SVBH8 | 48 | 60 | R 336.1331<br>R 336.2803, R 336.2804 |

## IX. OTHER REQUIREMENT(S)

NA

# FGFINISHOVENS
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

Five direct natural gas-fired drying ovens on the panel finishing line (EUPANELLINE) and lap finishing lanes 1 and 2 (EULAPLANE1 AND EULAPLANE 2).

**Emission Unit:** EUPANELOV, EULAP1OV, EULAP1XOV, EULAP2OV, and EULAP2XOV

## POLLUTION CONTROL EQUIPMENT

NA

## I. EMISSION LIMIT(S)

NA

## II. MATERIAL LIMIT(S)

1. The permittee shall only burn natural gas in each oven in FGFINISHOVENS. **(R 336.1225, R 336.1702)**

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The total heat input capacity of the ovens in FGFINISHOVENS shall not exceed a maximum of 27.6 MM BTU per hour.[1] **(R 336.1225)**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

## V. TESTING/SAMPLING

NA

## VI. MONITORING/RECORDKEEPING

NA

## VII. REPORTING

NA

## 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:[1]

| Stack & Vent ID | Maximum Exhaust Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|---|---|---|---|
| SVPANELOV1 | 14 | 40 | R 336.1225 |
| SVPANELOV2 | 14 | 40 | R 336.1225 |
| SVLAP1OV1 | 14 | 40 | R 336.1225 |
| SVLAP1OV2 | 14 | 40 | R 336.1225 |

| Stack & Vent ID | Maximum Exhaust Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|---|---|---|---|
| SVLAP1XOV1 | 14 | 40 | R 336.1225 |
| SVLAP1XOV2 | 14 | 40 | R 336.1225 |
| SVLAP2OV1 | 14 | 40 | R 336.1225 |
| SVLAP2OV2 | 14 | 40 | R 336.1225 |
| SVLAP2XOV1 | 14 | 40 | R 336.1225 |
| SVLAP2XOV2 | 14 | 40 | R 336.1225 |

## IX. OTHER REQUIREMENT(S)

NA

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

# FGBLRS/HTRS
# FLEXIBLE GROUP CONDITIONS

## DESCRIPTION

Two (2) natural gas-fired service water heaters and thirty-nine (39) natural gas-fired air make-up units and space heaters.

**Emission Unit:** NA

## POLLUTION CONTROL EQUIPMENT

NA

## I. EMISSION LIMIT(S)

NA

## II. MATERIAL LIMIT(S)

1. The permittee shall only burn natural gas in each combustion unit in FGBLRS/HTRS. **(R 336.1225, R 336.1702)**

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The total heat input capacity of the combustion units in FGBLRS/HTRS shall not exceed a maximum of 92.2 MMBTU per hour.[1] **(R 336.1225)**

## IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

## V. TESTING/SAMPLING

NA

## VI. MONITORING/RECORDKEEPING

NA

## VII. REPORTING

NA

## VIII. STACK/VENT RESTRICTION(S)

NA

## IX. OTHER REQUIREMENT(S)

NA

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

# FGFACILITY CONDITIONS

## DESCRIPTION

The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment, and exempt equipment.

## POLLUTION CONTROL EQUIPMENT

RCO, RTO, and baghouse dust collectors

## I. EMISSION LIMIT(S)

NA

## II. MATERIAL LIMIT(S)

| Material | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|---|---|---|---|---|---|
| 1. Finished Product (OSB) | 310,000 tons per year | 12-month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.2 | R 336.1205, R 336.1225, R 336.1702(a), 40 CFR 52.21(j) |
| 2. Finished Product (Siding) | 250,000 tons per year | 12-month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.2 | R 336.1205, R 336.1225, R 336.1702(a) |

## 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 336.1201(3))**

NA

## VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep records of fugitive dust control activities and dates carried out per a AQD approved Fugitive Dust Control Plan. **(R 336.1205, R 336.1371, R 336.1372)**

2. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month rolling production records as required in SC I.1 and SC I.2. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205(1)(a) and (3), 40 CFR 52.21(j))**

3. The permittee shall keep records of the Inspection and Maintenance Program specified in SC IX.2, including records of inspections done, problems found, repairs completed and/or corrective action taken, and scheduled and completed maintenance on the air cleaning devices. **(R 336.1201(3))**

## VII. REPORTING

NA

## VIII. STACK/VENT RESTRICTION(S)

NA

## IX. OTHER REQUIREMENT(S)

1. Permittee shall implement and maintain the Fugitive Dust Control Plan as specified in Appendix 3 to limit all fugitive dust emissions from the roadways, the material storage piles, stockpile areas, and other operations throughout the plant. **(R 336.1201, R 336.1371, 40 CFR 52.21)**
2. The permittee shall carry out an Inspection and Maintenance Program, including the keeping of a daily log or checklists, for all air cleaning devices to assure that the air cleaning devices are maintained and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law. The permittee shall keep records of the Inspection and Maintenance Program including records of problems found, repairs done and/or corrective action taken, and scheduled and completed maintenance on the air cleaning devices. **(R 336.1301, R 336.1331, R 336.1910)**

3. The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart DDDD—National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products. **(40 CFR Part 63, Subpart DDDD)**