From: Nick Waddell
To: EGLE-ROP
Subject: N0780-ROP Renewal Application
Date: Friday, September 2, 2022 2:24:54 PM
Attachments: N0780 2022 ROP Renewal Application and Cover Letter.pdf
N0780 Redlined ROP.pdf
N0780 PTI 43-19A.pdf
N0780 Compliance Assurance Plan May 2022.pdf
N0780 Malfunction Abatement Plan May 2022.pdf

Hello

I have attached the renewal application and supporting documents for source N0780, Louisiana Pacific Corporation-Newberry Plant. A hard copy is being mailed to the Marquette district office this afternoon. Please contact me with any questions. Thank you

Nick Waddell
EHS Manager
Louisiana Pacific-Newberry
PO Box 80
Newberry, MI 49868
Nick.Waddell@lpcorp.com
T (906) 293-4523
C (906) 322-1810

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September 1, 2022

Michigan Department of Environment, Great Lakes, and Energy
Marquette District Office
Air Quality Division
1504 West Washington Street
Marquette, MI 49855

Renewable Operating Permit Renewal Application
Louisiana Pacific Corporation-Newberry Plant
MI-ROP-N0780-2018a

Please find a copy of an application to renew renewable operating permit MI-ROP-N0780-2018a. The renewable operating permit was issued on February 14, 2018, and revised on March 19, 2020.

If you have any questions, please contact Nicholas Waddell at (906) 293-4523 or via email at Nick.Waddell@LPCorp.com

Sincerely,

Thomas Davis
Plant Manager
Louisiana-Pacific Corporation
Newberry, Michigan
906-293-4513
Thomas.Davis@LPCorp.com

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Newberry, MI

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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)
N0780	2493	321219	MI-ROP-N0780-2018a	

Source Name: Louisiana Pacific Corporation-Newberry Plant

Street Address: 7299 North County Road 403

City	State	ZIP Code	County
Newberry	MI	49868	Luce

Section/Town/Range (if address not available):

Source Description: Strand-board siding manufacturer

☐ 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)

City	State	ZIP Code	County	Country

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

SRN: N0780	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
Nicholas Waddell	Plant EHS Manager

Company Name & Mailing address (☒ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number 906-293-4523	E-mail address Nick.Waddell@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
Thomas Davis	Plant Manager

Company Name & Mailing address (☒ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number 906-293-4513	E-mail address Thomas.Davis@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: N0780	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)

Thomas Davis, 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.

Thomas Davis — **Signature of Responsible Official**

9/2/2022 — **Date**

SRN: N0780	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) If Yes, a Risk Management Plan (RMP) and periodic updates must be submitted to the USEPA. Has an updated RMP been submitted to the USEPA?	☐ Yes ☒ No ☐ Yes ☐ No
C4.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NOx, PM10, PM2.5, SO_2, VOC, lead) emissions? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers, or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. If No, criteria pollutant potential emission calculations do not need to be included.	☒ Yes ☐ No
C5.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the PTE for hazardous air pollutants (HAPs) regulated by Section 112 of the federal Clean Air Act? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. Fugitive emissions must be included in HAP emission calculations. If No, HAP potential emission calculations do not need to be included.	☒ Yes ☐ No
C6.	Are any emission units subject to the Cross-State Air Pollution Rule (CSAPR)? If Yes, identify the specific emission unit(s) subject to CSAPR on an AI-001 Form.	☐ Yes ☒ No
C7.	Are any emission units subject to the federal Acid Rain Program? If Yes, identify the specific emission unit(s) subject to the federal Acid Rain Program on an AI-001 Form. Is an Acid Rain Permit Renewal Application included with this application?	☐ Yes ☒ No ☐ Yes ☐ No
C8.	Are any emission units identified in the existing ROP subject to compliance assurance monitoring (CAM)? If Yes, identify the specific emission unit(s) subject to CAM on an AI-001 Form. If a CAM plan has not been previously submitted to EGLE, one must be included with the ROP renewal application on an AI-001 Form. If the CAM Plan has been updated, include an updated copy. Is a CAM plan included with this application? If a CAM Plan is included, check the type of proposed monitoring included in the Plan: 1. Monitoring proposed by the source based on performance of the control device, or 2. Presumptively Acceptable Monitoring, if eligible	☒ Yes ☐ No ☒ Yes ☐ No ☒ ☐
C9.	Does the source have any plans such as a malfunction abatement plan, fugitive dust plan, operation/maintenance plan, or any other monitoring plan that is referenced in an existing ROP, Permit to Install requirement, or any other applicable requirement? If Yes, then a copy must be submitted as part of the ROP renewal application.	☒ Yes ☐ No
C10.	Are there any specific requirements that the source proposes to be identified in the ROP as non-applicable? If Yes, then a description of the requirement and justification must be submitted as part of the ROP renewal application on an AI-001 Form.	☐ Yes ☒ No
☒	Check here if an AI-001 Form is attached to provide more information for Part C. Enter AI-001 Form ID: **AI**-001C	

SRN: N0780	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)]

Comments:

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

SRN: N0780	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? If Yes, identify changes and additions on Part F, Part G and/or Part H.	☐ Yes ☒ No
E2. For each emission unit(s) identified in the existing ROP, all stacks with applicable requirements are to be reported in MAERS. Are there any stacks with applicable requirements for emission unit(s) identified in the existing ROP that were not reported in the most recent MAERS reporting year? If Yes, identity the stack(s) that was/were not reported on applicable MAERS form(s).	☐ Yes ☒ No
E3. Have any emission units identified in the existing ROP been modified or reconstructed that required a PTI? If Yes, complete Part F with the appropriate information.	☒ Yes ☐ No
E4. Have any emission units identified in the existing ROP been dismantled? If Yes, identify the emission unit(s) and the dismantle date in the comment area below or on an AI-001 Form.	☐ Yes ☒ No

Comments:

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

PART F: PERMIT TO INSTALL (PTI) INFORMATION

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

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

Permit to Install Number	Emission Units/Flexible Group ID(s)	Description (*Include Process Equipment, Control Devices and Monitoring Devices*)	Date Emission Unit was Installed/ Modified/ Reconstructed
43-19A	EUPRESS	A regenerative catalytic oxidizer was added to the process as a control device	March 1, 2022

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:
PTI 43-19A affects EUPRESS. A copy of the PTI to incorporate into the ROP has been attached.

SVRCOSTACK was not reported in the most recent MAERS; it was installed in March 2022. Emissions from EUPRESS was reported under SVPRESSEAST and EVPRESSWEST

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

SRN: N0780	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: N0780	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? If Yes, on an AI-001 Form, identify each emission unit/flexible group that the new regulation applies to and identify each state or federal regulation that should be added. Also, describe the new requirements in questions H8 – H16 below and add the specific requirements to existing emission units/flexible groups in the mark-up of the ROP, create a new Emission Unit/Flexible Group Table, or add an AQD template table for the specific state or federal requirement.	☐ Yes ☒ No
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were not incorporated into the existing ROP? If Yes, list the CO/CJ number(s) below and add or change the conditions and underlying applicable requirements in the appropriate Emission Unit/Flexible Group Tables in the mark-up of the ROP.	☐ Yes ☒ No
H6. Does the source propose to add, change and/or delete **source-wide** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☒ No
H7. Are you proposing to **streamline** any requirements? If Yes, identify the streamlined and subsumed requirements and the EU ID, and provide a justification for streamlining the applicable requirement below.	☐ Yes ☒ No

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

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

SRN: N0780	Section Number (if applicable):

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

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

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: N0780	Section Number (if applicable):

1. Additional Information ID
AI-C

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

C1: SVPRESSRCOSTACK was not in operating during the most recent MAERS reporting year. EUPRESS had two stacks previous, SVPRESSEAST and SVPRESSWEST, which were both in operation and reported for the most recent MAERS reporting year.

C4: PTI 43-19A has been attached to this application. PTI 43-19A represents a modification to emission unit EUPRESS, with the addition of an RCO to the process.

C5: PTI 43-19A has been attached to this application. PTI 43-19A represents a modification to emission unit EUPRESS, with the addition of an RCO to the process.

C8:
Emission Units from MI-ROP-N0780-2018a that are potentially subject to CAM are:
1. EUDRYERRC
2. EUPRESS
3. EUKONUSTOH
4. EUBAGHOUSE1
5. EUBAGHOUSE2
6. EUBAGHOUSE3
7. EUBAGHOUSE5
8. EUBAGHOUSE6
9. EUBAGHOUSE8
10. EUBAGHOUSE10

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

~~EFFECTIVE DATE: February 14, 2018~~
~~REVISION DATE: March 19, 2020~~

ISSUED TO

LOUISIANA PACIFIC CORPORATION - NEWBERRY PLANT

State Registration Number (SRN): N0780

LOCATED AT

7299 North County Road 403, Newberry, Luce County, Michigan 49868

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-N0780-2018a

Expiration Date: ~~February 14, 2023~~

Administratively Complete ROP Renewal Application Due Between ~~September 14, 2021 and September 14, 2022~~

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-N0780-2018a

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

Michigan Department of Environment, Great Lakes, and Energy

Ed Lancaster, Marquette District Supervisor

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AUTHORITY AND ENFORCEABILITY

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

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

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

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

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

A. GENERAL CONDITIONS

Permit Enforceability

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

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

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

General Provisions

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

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

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

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

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

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

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

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

Equipment & Design

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

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

Emission Limits

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

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

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

Testing/Sampling

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

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

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

Monitoring/Recordkeeping

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

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

Certification & Reporting

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

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

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

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

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

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

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

25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable

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

Permit Shield

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

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

27. Nothing in this ROP shall alter or affect any of the following:
    a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
    b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
    c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**
    d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**

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

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

Revisions

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

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

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

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

Reopenings

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

Renewals

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

Stratospheric Ozone Protection

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

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

Risk Management Plan

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

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

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

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

Emission Trading

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

Permit to Install (PTI)

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

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

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

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

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

B. SOURCE-WIDE CONDITIONS

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

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

SOURCE-WIDE CONDITIONS

POLLUTION CONTROL EQUIPMENT

See Emission Unit Descriptions

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Each Individual HAP	9.9 tpy[2]	12-month rolling time period as determined at the end of each calendar month	Source-Wide	SC VI.2	**R 336.1205(1)**
2. Aggregate HAPs	24.9 tpy[2]	12-month rolling time period as determined at the end of each calendar month	Source-Wide	SC VI.2	**R 336.1205(1)**

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL 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))**

1. The permittee shall determine the HAP content of any material as received and as applied, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311.[2] **(R 336.1205(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 10th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[2] **(R 336.1205(3))**

2. The permittee shall keep the following information on a monthly basis for SOURCE-WIDE:
   a. Gallons or pounds of each HAP containing material used.
   b. Where applicable, gallons or pounds of each HAP containing material reclaimed.
   c. HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.
   d. Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month using mass balance or an alternate method acceptable to the AQD District Supervisor.
   e. Individual and aggregate HAP emission calculations determining the cumulative emission rate of each during the first 12-months and the annual emission rate of each thereafter, in tons per 12-month rolling time period as determined at the end of each calendar month using mass balance or an alternate method acceptable to the AQD District Supervisor.

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

4. Semiannual reporting of fugitive dust control activities and dates shall be submitted with the semiannual reporting of monitoring and deviations.[2] **(R 336.1213(3)(c)(i))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

IX. OTHER REQUIREMENT(S)

1. The permittee shall implement a Fugitive Dust Control Program approved by the Air Quality Division District Supervisor to limit fugitive dust emissions from the roadways, the material storage piles, stock pile areas, and other operations throughout the plant, including the keeping of records of fugitive dust control activities and dates

[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).

carried out. The permittee shall submit these records with the semiannual reports required under Section B. Source-Wide Conditions VII.4.[2] **(R 336.1213(3))**

Footnotes:

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
EUKONUSTOH	Thermal Oil Heaters process group including two 19.9 million BTU per hour Konus thermal oil heaters fired by wood fuel with two economizers. The economizers are heat exchangers that do not combust any fuel. The Konus thermal oil heaters are each controlled by an individual cyclone dust collector and are both exhausted into Baghouse4.	1984 1996	NA
EUGEKATOH	One Geka thermal oil heater re-permitted in 2003 to burn natural gas, rated at a maximum heat input of 40 million BTU per hour. This unit was originally installed under Air Use Permit #392-87, and previously burned sander dust. Permit #392-87 was voided in 1996.	1987 2003	NA
EUDRYERRC	Dryer System consisting of: a replacement triple pass dryer drum with heat provided by the existing 42 million BTU per hour wood fired McConnell burner and/or three independently operated Maxon natural gas burners (19.5 million Btu per hour each) and an exhaust gas recirculation system (as needed). The dryer capacity is 16.5 tons per hour of dried flakes. A portion of the press (EUPRESS) emissions are routed to the Dryer System. Emissions are controlled by a wet electrostatic precipitator (WESP) and a regenerative thermal oxidizer (RTO). The wet ESP is an E-tube unit with two separately energized electrical sections operating in parallel.	2005	NA

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUPRESS	Press System including the Board Press and fugitive emissions from the mat forming line. The press has 17 flights with vented platens on all flights that route a portion of the Press System exhaust to the Dryer System for control. The vented platen press emissions are controlled by the Dryer System WESP and RTO and are accounted for in the emission limits under EUDRYERRC. The limits for EUPRESS are applicable to the portion of the exhaust that is not sent to the Dryer System.	1985 1996 2019 2022	NA
EUCOATING	Process group consisting of a paint booth with dry exhaust filters and a natural gas-fired drying oven for painting grooved areas on siding, and an edge seal paint booth with dry exhaust filters.	1992 1996	NA
EUBAGHOUSE1	Process group exhausts controlled by the Carter-Day Baghouse1 which can include the Diamond roll screener, Baghouse1 outfeed, and collected fines from Baghouse5.	1984 1996 2005	NA
EUBAGHOUSE2	Process group consisting of exhausts from the mat forming line, including the flake resin application operation, the flying cutoff saw, and the flake reclaim system. The flake reclaim system includes the flake formers, flake conveyors and mat side suction. EUBAGHOUSE2 is controlled by Carter-Day Baghouse2.	1985 1996 2005	NA
EUBAGHOUSE3	Process group consisting of thermal oil heater fuel metering bin and waferizer green fines blower, all controlled by Carter-Day Baghouse3.	1989 1996	NA
EUBAGHOUSE5	Process group consisting of exhausts from the two dry flake day bins, conveyors and screener all controlled by Carter Day Baghouse5.	1990	NA
EUBAGHOUSE6	Process consisting of exhausts from the dryer burner fuel bin controlled by Flex-Kleen Baghouse6. Wood fines discharge from Baghouse1 passes thru a hammer mill then are blown to dryer burner fuel storage bin.	1990	NA
EUBAGHOUSE8	Process group consisting of exhausts from the groover booth and hammermill, which includes the 1st and 2nd pass trim saws and 1st pass clean-up conveyor all controlled by Carter-Day Baghouse8.	2005	NA

EUBAGHOUSE9	Process group consisting of exhausts from the fines recovery system, which includes a metering bin, controlled by Carter-Day Baghouse9.	2005	NA
Emission Unit ID	**Emission Unit Description (Including Process Equipment & Control Device(s))**	**Installation Date/ Modification Date**	**Flexible Group ID**
EUCLEANERS	One Safety-Kleen cold cleaner, with air/vapor interface less than 10 square feet, using nonchlorinated solvent. Cold cleaner is equipped with a cover.	1994	FGCOLDCLEANERS
EUDRYBACKUP	Gasoline fired, spark ignition emergency dryer back-up generator.	1990	FGSIRICEMACT
EUTOHDIESEL	Diesel fired, compression ignition, emergency Konus backup generator.	2015	FGCIRICEMACTNEW
EUFIREPUMP	Diesel fired, compression ignition, emergency fire water pump.	1985	FGCIRICEMACT

EUKONUSTOH EMISSION UNIT CONDITIONS

DESCRIPTION:

Thermal Oil Heaters process group including two 19.9 million BTU per hour Konus thermal oil heaters fired by wood fuel with two economizers. The economizers are heat exchangers that do not combust any fuel.

EUKONUSTOH 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.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT:

Individual cyclone dust collector for each heater exhausted into Baghouse #4. This is a CAM subject control device.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM-10	0.081 lb per 1000 lbs of exhaust gases, corrected to 50% excess air[2]	Hourly	EUKONUSTOH	SC V.1	**R 336.1205(3)**
2. PM-10	4.3 pph[2]	Hourly	EUKONUSTOH	SC V.1	**R 336.1205(3)**
3. PM	0.081 lb per 1000 lbs of exhaust gases, corrected to 50% excess air[2]	Hourly	EUKONUSTOH	SC V.1	**R 336.1205(3) R 336.1331**
4. PM	4.3 pph[2]	Hourly	EUKONUSTOH	SC V.1	**R 336.1205(3)**
5. CO	0.87 lb/MMBTU heat input[2]	Hourly	EUKONUSTOH	SC V.1	**R 336.1205(3)**
6. CO	26.0 pph[2]	Hourly	EUKONUSTOH	SC V.1	**R 336.1205(3)**
7. CO	93.4 tpy[2]	12-month rolling time period as determined at the end of each calendar month	EUKONUSTOH	SC VI.1	**R 336.1205(3)**
8. NO_X	0.4 lb/MMBTU heat input[2]	Hourly	EUKONUSTOH	SC V.1	**R 336.1205(3)**
9. NO_X	15.5 pph[2]	Hourly	EUKONUSTOH	SC V.1	**R 336.1205(3)**
10. VOC	0.77 pph[2]	Hourly	EUKONUSTOH	SC V.1	**R 336.1205(3)**

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Wood Fuel	24,000 tons of wood per year[2]	12-month rolling time period as determined at the end of each calendar month	EUKONUSTOH	SC VI.2	**R 336.1205(3)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUKONUSTOH, when fired with wood, unless the cyclone dust collectors and Baghouse #4 are operating properly. [2] **(R 336.1910)**

2. Except for transitional periods not longer than six hours the permittee shall not operate both Konus thermal oil heaters simultaneously on wood fuel. [2] **(R 336.1205(3))**

3. The permittee shall not operate EUKONUSTOH unless the Malfunction Abatement Plan approved by the AQD District Supervisor is implemented and maintained. [2] **(R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. Within 180 days after commencement of EUKONUSTOH resumes regular operation after the project, permittee shall verify PM10, PM, CO, NOx, and VOC emission rates from EUKONUSTOH by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol.

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10	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

No less than 30 days prior to testing, the permittee shall submit a complete test protocol to the AQD Technical Programs Unit and District Office. The AQD must approve the final protocol 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 336.1205(3), R 336.1702, R 336.1902, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

2. The permittee shall conduct daily visible emissions observations from EUKONUSTOH using EPA Method 22 or an alternate test method approved by the AQD. The AQD District Supervisor must approve an alternate test method prior to testing.[2] **(R 336.2001, R 336.2003, R 336.2004)**

3. The permittee shall verify the PM10, PM, CO, NOx, and VOC emission rates from EUKONUSTOH, 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)**

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 a monthly record of the amount of carbon monoxide emitted from the two Konus thermal oil heaters, calculated using the hourly average emission rate from the most recent available emissions testing. By the tenth day of each calendar month, the permittee shall calculate the carbon monoxide emissions for the

previous 12-calendar month period. These records shall be submitted with the semi-annual reporting of monitoring and deviations. These records shall be maintained on-site and made available to Department personnel upon request.[2] **(R 336.1205(3))**

2. The permittee shall keep a monthly record of the weight of wood burned in the two Konus thermal oil heaters, measured as received. By the 10th day of each calendar month, the permittee shall calculate the weight of wood burned, as received, for the previous 12-calendar month period. These records shall be submitted with the semi-annual reporting of monitoring and deviations. These records shall be maintained on-site and made available to Department personnel upon request.[2] **(R 336.1201(3))**

3. The permittee shall keep a daily record of hours of operation and fuel type for both Konus thermal oil heaters. Any hours in which both Konus thermal oil heaters are operated simultaneously on wood as permitted in SC III.2 shall be included in these records.[2] **(R 336.1205(3))**

4. 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)**

5. The permittee shall record a daily visual opacity observation as an indicator of proper operation of the dust collector. The indicator is the presence of visible emissions.[2] **(R 336.1201(3), 40 CFR 64.6(c)(1)(i and ii))**

6. An excursion is a departure from the indicator range of no visible emissions. The indicator of no visible emissions indicates normal operations.[2] **(R 336.1201(3), 40 CFR 64.6(c)(2))**

7. Upon detecting an excursion or exceedance, the permittee shall restore the process 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 permittee shall perform and record the results of a daily visible emission check using US EPA Method 22 based procedures during routine maximum operating conditions. If any visible emissions (excursion) are observed, the AQD approved Malfunction Abatement Plan corrective procedures shall be initiated and records of any corrective actions taken shall be maintained.[2] **(R 336.1201(3), 40 CFR 64.7(d))**

8. 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 40 CFR Part 64, compliance 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] **(R 336.1201(3), 40 CFR 64.6(c)(3), 40 CFR 64.7(c))**

9. The permittee shall properly maintain the monitoring system including keeping necessary parts for routine repair of the monitoring equipment.[2] **(R 336.1201(3), 40 CFR 64.7(b))**

10. 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.[2] **(R 336.1201(3), 40 CFR 64.9(b)(1))**

VII. REPORTING

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

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

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

4. 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. 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.[2] **(R 336.2001(3))**

6. 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.[2] **(R 336.2001(4))**

7. 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.[2] **(R 336.2001(5))**

8. The permittee shall submit monthly records of CO emissions with the semiannual reporting of monitoring and deviations.[2] **(R 336.1205(3))**

9. The permittee shall submit monthly records required in VI.2. of the amount of wood fuel burned with the semiannual reporting of monitoring and deviations.[2] **(R 336.1205(3))**

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. SVKONUS	60 inches [2]	100 feet [2]	**R 336.1201(3), R 336.1205(3)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall implement a "Malfunction Abatement Plan (MAP) and Control Equipment Monitoring Plan" that has been approved by the AQD District Supervisor. The plan shall include procedures for maintaining and operating in a satisfactory manner the process and add-on air pollution control device, or monitoring equipment during malfunction events, and a program for corrective action for such events. If the Malfunction Abatement Plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the Malfunction Abatement Plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor for approval.[2] **(R 336.1301, R 336.1331, R 336.1910)**

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

3. 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 ROP and 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).

EUGEKATOH EMISSION UNIT CONDITIONS

DESCRIPTION:

One natural gas fired Geka thermal oil heater, rated at a maximum heat input of 40 million BTU per hour.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM-10	0.30 pph [2]	Hourly	EUGEKATOH	SC II.1	**R 336.1205(3)**
2. PM	0.30 pph [2]	Hourly	EUGEKATOH	SC II.1	**R 336.1205(3)**
3. NOx	3.92 pph	Hourly	EUGEKATOH	SC II.1	**R 336.1205(3)**
4. CO	3.29 pph [2]	Hourly	EUGEKATOH	SC II.1	**R 336.1205(3)**
5. VOC	0.22 pph [2]	Hourly	EUGEKATOH	SC II.1	**R 336.1205(3)**

II. MATERIAL LIMIT(S)

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

1. The permittee shall burn only natural gas in the reactivated Geka thermal oil heater. [2] **(R 336.1205(3))**

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))**

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))**

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. SVEUGEKATOH	40 inch [2] diameter	60 feet [2]	**R 336.1205(3)**

IX. OTHER REQUIREMENT(S)

NA

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

EUDRYERRC EMISSION UNIT CONDITIONS

DESCRIPTION:

Dryer System consisting of a replacement triple pass dryer drum with heat provided by the existing 42 million BTU per hour wood fired McConnell burner and/or three independently operated Maxon natural gas burners (19.5 million Btu per hour each) and an exhaust gas recirculation system (as needed). The dryer capacity is 16.5 tons per hour of dried flakes. A portion of the press (EUPRESS) emissions are routed to the Dryer System.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Wet electrostatic precipitator (WESP) E-tube unit with two separately energized electrical sections operating in parallel and a regenerative thermal oxidizer (RTO). The wet ESP is an E-tube unit with two separately energized electrical sections operating in parallel. Both the WESP and RTO are CAM subject control devices.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM-10	0.020 gr / dscf[2]	Hourly	EUDRYERRC	SC V.1	**R 336.1205(3)**
2. PM-10	7.9 pph[2]	Hourly	EUDRYERRC	SC V.1	**R 336.1205(3)**
3. PM	0.020 gr / dscf[2]	Hourly	EUDRYERRC	SC V.1	**R 336.1205(3)**
4. PM	7.9 pph[2]	Hourly	EUDRYERRC	SC V.1	**R 336.1205(3)**
5. SO_2	0.4 pph[2]	Hourly	EUDRYERRC	SC V.1	**R 336.1205(3)**
6. NOx	14.8 pph[2]	Hourly	EUDRYERRC	SC V.1	**R 336.1205(3)**
7. CO	23.98 pph[2]	Hourly	EUDRYERRC	SC V.1	**R 336.1205(3)**
8. CO	78.34 tpy[2]	12-month rolling time period as determined at the end of each calendar month **	EUDRYERRC	SC VI.1	**R 336.1205(3)**
9. VOC	5.12 pph*** [2]	Hourly	EUDRYERRC	SC V.1	**R 336.1205(3)** **R 336.1702(c)**
10. VOC	14.07 tpy[2]	12-month rolling time period as determined at the end of each calendar month **	EUDRYERRC	SC VI.1	**R 336.1205(3)** **R 336.1702(c)**
11. Acetaldehyde	1.17 pph[1]	Hourly	EUDRYERRC	SC V.1	**R 336.1225**
12. Acrolein	0.195 pph[1]	Hourly	EUDRYERRC	SC V.1	**R 336.1225**
13. Formaldehyde	1.11 pph[1]	Hourly	EUDRYERRC	SC V.1	**R 336.1225**
14. Manganese	0.03 pph[1]	Hourly	EUDRYERRC	SC V.1	**R 336.1225**

*If the tested emission factor for EUDRYERRC is lower than the emission limit for CO and/or VOC in this section, the tested emission factor may be used to determine compliance with the tons per year limit.

**The VOC limit is based on a maximum drying rate of 16.50 oven dry tons (ODT)/hour.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Coniferous Wood	30% by volume[2]	12-month rolling time period as determined at the end of each calendar month	EUDRYERRC	SC VI.13	**R 336.1205(3)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUDRYERRC unless the cyclone, the wet electrostatic precipitator, and the RTO are installed, maintained and operated in a satisfactory manner. [2] **(R 336.1370, R 336.1910)**

2. The permittee shall not operate EUDRYERRC unless the hourly average minimum combustion temperature in the RTO is greater than 1525 degrees Fahrenheit or the minimum hourly average combustion temperature identified during the most recent acceptable compliance test. [2] **(R 336.1910)**

3. The permittee shall not introduce wash liquor from the wet electrostatic precipitator to EUDRYERRC.[2] **(R 336.1910)**

4. The permittee shall keep a record of the date and time that each RTO bake out is initiated and the length of each bake out.[2] **(R 336.1201(3))**

5. The permittee shall not operate EUDRYERRC unless the Malfunction Abatement Plan approved by the AQD District Supervisor is implemented and maintained. [2] **(R 336.1911)**

6. The permittee shall not operate EUDRYERRC for more than one hour without the exhaust gas recirculation system functioning. The permittee shall include procedures in the MAP for operating the exhaust recirculation system in a satisfactory manner, monitoring equipment during malfunction events, and a program for corrective action for such events. **(R 336.1205, R 336.1301, R 336.1331, R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall verify PM10, PM, CO, NOX, VOC, Acetaldehyde, Acrolein, Formaldehyde, Manganese, and Methanol emission rates from EUDRYERRC by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed at a minimum frequency of once every five years. Testing shall be performed using an approved EPA Method listed in the table below. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol.

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10	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
HAPs	40 CFR Part 63, Appendix A
Metals	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A

No less than 30 days prior to testing, the permittee shall submit a complete test protocol to the AQD Technical Programs Unit and District Office. The AQD must approve the final protocol 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 336.1205(3), R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

2. The permittee shall conduct daily visible emissions observations from EUDRYERRC using EPA Method 22 or an alternate test method approved by the AQD. The AQD District Supervisor must approve an alternate test method prior to testing.[2] **(R 336.2001, R 336.2003, R 336.2004)**

3. The permittee shall verify the PM10, PM, CO, NO_x, VOC, Acetaldehyde, Acrolein, Formaldehyde, and Manganese emission rates from EUDRYERRC, 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)**

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 a monthly record of the amount of CO and VOC emitted from EUDRYERRC, calculated using the emission rates determined during the most recent available compliance testing, per an acceptable method as approved by the District Supervisor. By the tenth day of each calendar month, the permittee shall calculate the CO and VOC emission for the previous 12-calendar month period. **(R 336.1205(3), R 336.1702)**

2. The permittee shall monitor the RTO combustion chamber temperature at the middle of the combustion chamber using a thermocouple and shall record the combustion chamber temperature on a continuous basis. The thermocouple shall be calibrated as needed. **(R 336.1201(3))**

3. The permittee shall maintain a summary record of RTO temperature monitoring system downtime. The permittee shall keep a summary record of all hourly average minimum RTO combustion temperatures less than 1525 degrees Fahrenheit (or the minimum hourly average combustion temperature identified during the most recent acceptable compliance test). The summary shall include the cause if known and details of corrective action or action taken to discontinue operation of EUDRYERRC as required by SC III.2. **(R 336.1201(3))**

4. The permittee shall monitor, on an hourly basis, the temperature in the wet electrostatic precipitator (ESP) measured at the outlet of the quench section using a thermocouple and shall record the temperature on a continuous basis. The thermocouple shall be calibrated as needed. **(R 336.1201(3))**

5. The permittee shall continuously monitor and record hourly the temperature at the outlet of the quench section using a thermocouple as an indicator of proper operation of the ESP. The indicator range is an hourly average quench section temperature less than 180 degrees Fahrenheit. **(R 336.1201(3))**

6. The permittee shall maintain a summary record of the wet ESP temperature monitoring system downtime. The permittee shall keep a summary record of all hourly quench section temperatures greater than 180 degrees Fahrenheit including keeping a summary record of corrective action taken. **(R 336.1201(3), R 336.1910)**

7. The permittee shall monitor and record on an hourly basis the secondary voltage for each of the two parallel sections of the wet ESP. **(R 336.1201(3))**

8. Precipitator grid voltages below 30 kilovolts caused by a malfunction shall be recorded. The permittee shall keep a summary record of all hourly precipitator grid voltages less than 30 kilovolts that are not caused by automated hourly flushing action including a summary record of corrective action taken and voltage monitoring system downtime. **(R 336.1201(3), R 336.1910)**

9. The permittee shall keep a monthly record of the amount of finished product produced. By the tenth day of each calendar month, the permittee shall calculate the amount of finished product produced for the previous 12-calendar month period. **(R 336.1205(3))**

10. The permittee shall keep a monthly record of the amount of coniferous and non-coniferous wood used to manufacture the finished product. By the tenth day of each calendar month, the permittee shall calculate the percentage by volume of coniferous wood used to manufacture the finished product for the previous 12calendar month period. **(R 336.1205(3))**

11. The permittee shall keep a record of the date and time that each RTO bake out is initiated and the length of each bake out. **(R 336.1201(3))**

12. The permittee shall, at all times, maintain the RTO and Wet ESP monitoring system, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. **(R 336.1201(3))**

13. The permittee shall conduct temperature and voltage readings at all required intervals that the equipment is operating except for defined malfunctions, repairs and QA/QC activities. **(R 336.1201(3))**

14. The permittee shall record a daily visual opacity observation as an indicator of proper operation of the dust collector. The indicator of proper operation is the absence of visible emissions. **(R 336.1201(3))**

15. The permittee shall keep records of preventative maintenance, repairs, and corrective actions taken for EUDRYERRC and the WESP and RTO, as specified by the MAP. **(R 336.1301, R 336.1331, R 336.1910)**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.[2] **(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.[2] **(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.[2] **(R 336.1213(4)(c))**

4. 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.[2] **(R 336.2001(3))**

5. 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.[2] **(R 336.2001(4))**

6. 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.[2] **(R 336.2001(5))**

7. Each semi-annual report of monitoring and deviations submitted pursuant to VII.2 shall include: **(40 CFR 64.9)**
   a. Summary information on the number, duration, and cause (including unknown cause, if applicable) of exceedances and excursions, as defined in 40 CFR 64.1, 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;
   b. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than for calibration checks). 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;

c. A description of the actions taken to implement a Quality Improvement Plan (QIP) during the reporting period, if applicable. If a QIP has been completed, the report shall include documentation that the plan has been implemented and reduced the likelihood of similar levels of excursions or exceedances occurring.

8. The permittee shall submit CO and VOC emission records with the semiannual reports.[2] **(R 336.1205(3), R 336.1702(a))**

9. The permittee shall submit the RTO hourly average combustion temperature summary records with the semiannual reports.[2] **(R 336.1201(3))**

10. The permittee shall submit the quench temperature monitor downtime summary records with the semiannual reports.[2] **(R 336.1201(3), R 336.1910)**

11. The permittee shall submit hourly precipitator grid voltage summary records with the semiannual reports.[2] **(R 336.1910)**

12. The permittee shall submit records of the amount of finished product produced with the semiannual reports.[2] **(R 336.1201(3), R 336.1205(3))**

13. The permittee shall submit monthly records of the amount of coniferous and non-coniferous wood used with the semiannual reports.[2] **(R 336.1205(3))**

14. 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)**

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. SVRTOSTACK	64 inches[2]	100 feet[2]	**R 336.1205(3), R 336.1225**

IX. OTHER REQUIREMENT(S)

1. The permittee shall implement a “Malfunction Abatement Plan and Control Equipment Monitoring Plan” that has been approved by the AQD District Supervisor. The plan shall include procedures for maintaining and operating in a satisfactory manner the process and add-on air pollution control device, or monitoring equipment during malfunction events, and a program for corrective action for such events. If the Malfunction Abatement Plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the Malfunction Abatement Plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor for approval.[2] **(R 336.1301, R 336.1331, R 336.1910)**

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

2. 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 ROP and 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).

EUPRESS EMISSION UNIT CONDITIONS

DESCRIPTION:

Press System including the Board Press and fugitive emissions from the mat forming line. The press has 17 flights with vented platens on all flights that route a portion of the Press System exhaust to the Dryer System for control. The vented platen press emissions are controlled by the Dryer System WESP and RTO and are accounted for in the emission limits under EUDRYERRC. The limits for EUPRESS are applicable to the portion of the exhaust that is routed to a regenerative catalytic oxidizer (RCO).

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Regenerative Catalytic Oxidizer (RCO)

I. EMISSION LIMIT(S)

	Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1.	PM10	11.16 pph	Hourly	EUPRESS	SC V.1	R 336.1205(3)
2.	PM10	40.9 tpy	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.2	R 336.1205(3)
3.	PM2.5	11.16 pph	Hourly	EUPRESS	SC V.1	R 336.1205(3)
4.	PM2.5	40.9 tpy	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.2	R 336.1205(3)
5.	PM	11.16 pph	Hourly	EUPRESS	SC V.1	R 336.1205(3)
6.	PM	40.9 tpy	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.2	R 336.1205(3)
7.	NOx	2.77 pph	Hourly	EUPRESS	SC V.1	R 336.1205(3)
8.	CO	3.39 pph	Hourly	EUPRESS	SC V.1	R 336.1205(3)

9. CO	13.3 tpy	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.2	R 336.1205(3)
10. VOC	8.26 pph	Hourly	EUPRESS	SC V.1	R 336.1205(3) R 336.1702
11. VOC	30.3 tpy	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.2	R 336.1205(3) R 336.1702
12. Formaldehyde	4.1 pph[1]	Hourly	EUPRESS	SC V.1	R 336.1225
Pollutant	**Limit**	**Time Period / Operating Scenario**	**Equipment**	**Monitoring / Testing Method**	**Underlying Applicable Requirements**
13. Formaldehyde	19,800 lbs/yr[1]	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.2	R 336.1225(2)
14. Formaldehyde	4,417 lbs/yr	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.2	R 336.1205(3)
15. Methylene Diphenyl Isocyanate (MDI)	0.53 pph[1]	Hourly	EUPRESS	SC V.1	R 336.1225
16. Phenol	2.0 pph[1]	Hourly	EUPRESS	SC V.1	R 336.1225

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Finished Product	109,686 tons of finished products per year.[2]	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.2	**R 336.1205(3)**
2. Coniferous Wood	30% by volume.[2]	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.3	**R 336.1205(3)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUPRESS unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the RCO, has been submitted within 90 days of permit issuance, 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 336.1205(3), R 336.1702(a), R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUPRESS unless the RCO is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. Satisfactory operation of the RCO includes maintaining a minimum operating temperature of 750°F, or a minimum temperature that has been demonstrated to be acceptable in the most recent AQD-approved emissions compliance test. **(R 336.1224, R 336.1225, R 336.1702, R 336.1910)**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, acceptable to the AQD District Supervisor, a temperature monitoring device in the combustion chamber of the RCO to continuously monitor and record the temperature during operation of EUPRESS. **(R 336.1224, R 336.1225, R 336.1702, 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. Within 180 days after the RCO for EUPRESS has been commissioned, the permittee shall verify PM, PM10, PM2.5, CO, NO_X, VOC, Formaldehyde, MDI, Phenol, and methanol emission rates from EUPRESS by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed at a minimum frequency of once every five years. Testing shall be performed using an approved EPA Method listed in the table below. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol.

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
HAPs	40 CFR Part 63, Appendix A
Metals	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A

No less than 30 days prior to testing, the permittee shall submit a complete test protocol to the AQD Technical Programs Unit and District Office. The AQD must approve the final protocol 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 336.1205(3), R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

2. The permittee shall verify the PM10, PM, CO, NO_X, VOC, Formaldehyde, Methylene Diphenyl Isocyanate, and Phenol 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)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the tenth day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1225, R 336.1702(a))**

2. The permittee shall keep monthly and 12-month rolling time period records of the amount of PM10, PM2.5, PM, CO, VOCs, and Formaldehyde emitted from EUPRESS, calculated using the emission rates determined during the most recent compliance testing, per an acceptable method as approved by the District Supervisor. **(R 336.1205, R 336.1225, R 336.1702(a))**

3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling record of the amount of finished product produced in EUPRESS. **(R 336.1205, R 336.1225, R 336.1702(a))**

4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling records of the amount of coniferous and non-coniferous wood used to manufacture the finished product. **(R 336.1205, R 336.1225, R 336.1702(a))**

5. The permittee shall monitor and record, in a satisfactory manner acceptable to the AQD District Supervisor, the temperature in the combustion chamber of the RCO, on a continuous basis, during operation of EUPRESS. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. **(R 336.1224, R 336.1225, R 336.1702, R 336.1910)**

6. The permittee shall keep records of preventative maintenance, repairs, and corrective actions taken for EUPRESS and the RCO, as specified by the MAP. **(R 336.1205(3), R 336.1702(a), R 336.1910, R 336.1911)**

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 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.[2] **(R 336.2001(3))**

5. 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.[2] **(R 336.2001(4))**

6. 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.[2] **(R 336.2001(5))**

7. The permittee shall submit monthly emissions records with the semiannual reports.[2] **(R 336.1205(3))**

8. The permittee shall submit records of the amount of finished product produced with the semiannual reports.[2] **(R 336.1205(3))**

9. The permittee shall submit records of the amount of coniferous and non-coniferous wood used with the semiannual reports.[2] **(R 336.1201(3))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVPRESSRCOSTACK	80	100	R 336.1225, 40 CFR 52.21(c) & (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).

EUCOATING EMISSION UNIT CONDITIONS

DESCRIPTION

Process group consisting of a paint booth with dry exhaust filters and a natural gas-fired drying oven for painting grooved areas on siding, and an edge seal paint booth with dry exhaust filters.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Dry exhaust filters.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Visible Emissions	No visible emissions except due to uncombined water vapor[2]	Instantaneous	EUCOATING	SC III.1	**R 336.1301(1)(c)**
2. VOCs	1.1 pph[2]	Hourly	EUCOATING	SC VI.3	**R 336.1702**

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUCOATING unless all exhaust filters are in place and operating properly.[2] **(R 336.1910)**

2. The permittee shall not operate EUCOATING unless the Malfunction Abatement Plan approved by the AQD District Supervisor is implemented and maintained. [2] **(R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall maintain a record of the VOC content of each material used in EUCOATING. [2] **(R 336.1213(3), R 336.1702)**

2. The permittee shall maintain a monthly record of the usage rate of each material used in EUCOATING. [2] **(R 336.1213(3), R 336.1702)**

3. The permittee shall maintain a monthly record of calculations determining the monthly average VOC emission rate in pounds per hour. **(R 336.1213(3), R 336.1702)**

4. 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 336.1331, R 336.205(3))**

VII. REPORTING

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

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

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

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

IX. OTHER REQUIREMENT(S)

1. The permittee shall implement a “Malfunction Abatement Plan and Control Equipment Monitoring Plan” that has been approved by the AQD District Supervisor. The plan shall include procedures for maintaining and operating in a satisfactory manner the process and add-on air pollution control device, or monitoring equipment during malfunction events, and a program for corrective action for such events. If the Malfunction Abatement Plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the Malfunction Abatement Plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor for approval.[2] **(R 336.1213(2), R 336.1213(3), R 336.1301, R 336.1331, R 336.1910)**

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).

EUBAGHOUSE1 EMISSION UNIT CONDITIONS

DESCRIPTION

Process group exhausts controlled by the Carter-Day Baghouse1 which can include; the Diamond roll screener, Baghouse1 outfeed, and collected fines from Baghouse5.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Carter-Day Baghouse1. 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. Visible Emissions	10% opacity, except due to uncombined water vapor [2]	Six-Minute Average	EUBAGHOUSE1	SC VI.1	**R 336.1301(1)(c)**
2. PM10	0.032 lb per 1000 lbs of exhaust gases calculated on a dry gas basis [2]	Hourly	EUBAGHOUSE1	SC VI.1	**R 336.1205(3)**
3. PM-10	5.8 pph[2]	Hourly	EUBAGHOUSE1	SC VI.1	**R 336.1205(3)**
4. PM	0.032 lb per 1000 lbs of exhaust gases calculated on a dry gas basis [2]	Hourly	EUBAGHOUSE1	SC VI.1	**R 336.1205(3) R 336.1331**
5. PM	5.8 pph[2]	Hourly	EUBAGHOUSE1	SC VI.1	**R 336.1205(3)**

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the EUBAGHOUSE1 process group equipment unless Baghouse1 is installed, maintained and operated in a satisfactory manner. [2] **(R 336.1370, R 336.1910)**

2. The permittee shall not operate EUBAGHOUSE1 unless the Malfunction Abatement Plan approved by the AQD District Supervisor is implemented and maintained. [2] **(R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep records of the 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 336.1331, R 336.205(3))**

2. The permittee shall perform and record the results of a daily visible emission check using US EPA Method 22 based procedures during routine maximum operating conditions. If any visible emissions (excursion) are observed the AQD approved malfunction abatement plan corrective procedures shall be initiated, and records of any corrective actions taken shall be maintained. **(40 CFR 64.6(c)(2), 40 CFR 64.7(d), 40 CFR 64.6(c)(1)(i), (ii), and (iii))**

3. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutantspecific 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))**

4. 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, in frequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**

5. 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))**

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))**

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. SVBAGHOUSE[3]	42 inches [4]	60 feet [2]	**R 336.1901**

IX. OTHER REQUIREMENT(S)

1. The permittee shall implement a "Malfunction Abatement Plan and Control Equipment Monitoring Plan" that has been approved by the AQD District Supervisor. The plan shall include procedures for maintaining and operating in a satisfactory manner the process and add-on air pollution control device, or monitoring equipment during malfunction events, and a program for corrective action for such events. If the Malfunction Abatement Plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the Malfunction Abatement Plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor for approval. [2] **(R 336.1213(2), R 336.1213(3), R 336.1301, R 336.1331, R 336.1910)**

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

3. 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 ROP and 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))**

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

Footnotes:

EUBAGHOUSE2 EMISSION UNIT CONDITIONS

DESCRIPTION

Process group consisting of exhausts from the mat forming line, including the flake resin application operation, the flying cutoff saw, and the flake reclaim system. The flake reclaim system includes the flake formers, flake conveyors and mad side suction.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Carter-Day Baghouse2. 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. Visible Emissions	10% opacity, except due to uncombined water vapor [2]	Six-Minute Average	EUBAGHOUSE2	SC VI.1	**R 336.1301(1)(c)**
2. PM-10	0.031 lb. per 1,000 lbs. of exhaust gases calculated on a dry gas basis [2]	Hourly	EUBAGHOUSE2	SC VI.1	**R 336.1205(3)**
3. PM-10	3.8 pph [2]	Hourly	EUBAGHOUSE 2	SC VI.1	**R 336.1205(3)**
4. PM	0.031 lb. per 1,000 lbs. of exhaust gases calculated on a dry gas basis [2]	Hourly	EUBAGHOUSE 2	SC VI.1	**R 336.1331 R 336.1205(3)**
5. PM	3.8 pph [2]	Hourly	EUBAGHOUSE 2	SC VI.1	**R 336.1205(3)**

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the EUBAGHOUSE2 process group equipment unless Baghouse2 is installed, maintained, and operated in a satisfactory manner. [2] **(R 336.1370, R 336.1910)**

2. The permittee shall not operate EUBAGHOUSE2 unless the Malfunction Abatement Plan approved by the AQD District Supervisor is implemented and maintained. [2] **(R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep records of the 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 336.1331, R 336.205(3))**

2. The permittee shall perform and record the results of a daily visible emission check using US EPA Method 22 based procedures during routine maximum operating conditions. If any visible emissions (excursion) are observed the AQD approved malfunction abatement plan corrective procedures shall be initiated and records of any corrective actions taken shall be maintained. **(40 CFR 64.6(c)(2), 40 CFR 64.7(d), 40 CFR 64.6(c)(1)(i), (ii), and (iii))**

3. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutantspecific 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))**

4. 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, in frequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**

5. 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))**

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))**

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. SVBAGHOUSE2	36 inches [2]	35 feet [2]	**R 336.1901, R 336.1205(3)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall implement a "Malfunction Abatement Plan and Control Equipment Monitoring Plan" that has been approved by the AQD District Supervisor. The plan shall include procedures for maintaining and operating in a satisfactory manner the process and add-on air pollution control device, or monitoring equipment during malfunction events, and a program for corrective action for such events. If the Malfunction Abatement Plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the Malfunction Abatement Plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor for approval.[2] **(R 336.1213(2), R 336.1213(3), R 336.1301, R 336.1331, R 336.1910)**

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

3. 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 ROP and 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).

EUBAGHOUSE3 EMISSION UNIT CONDITIONS

DESCRIPTION

Process group consisting of thermal oil heater fuel metering bin and the waferizer green fines blower.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Carter-Day Baghouse3. 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. Visible Emissions	10% opacity, except due to uncombined water vapor [2]	Six-Minute Average	EUBAGHOUSE3	SC VI.1	**R 336.1301(1)(c)**
2. PM-10	0.021 lb per 1000 lbs of exhaust gases calculated on a dry gas basis [2]	Hourly	EUBAGHOUSE3	SC VI.1	**R 336.1205(3)**
3. PM-10	1.9 pph [2]	Hourly	EUBAGHOUSE3	SC VI.1	**R 336.1205(3)**
4. PM	0.021 lb per 1000 lbs of exhaust gases calculated on a dry gas basis [2]	Hourly	EUBAGHOUSE3	SC VI.1	**R 336.1331 R 336.1205(3)**
5. PM	1.9 pph [2]	Hourly	EUBAGHOUSE3	SC VI.1	**R 336.1205(3)**

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the EUBAGHOUSE3 process group equipment unless Cyclone Collector #3 and Baghouse3 are installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1370, R 336.1910)**

2. The permittee shall not operate EUBAGHOUSE3 unless the Malfunction Abatement Plan approved by the AQD District Supervisor is implemented and maintained. [2] **(R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep records of the 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 336.1331, R 336.205(3))**

2. The permittee shall perform and record the results of a daily visible emission check using US EPA Method 22 based procedures during routine maximum operating conditions. If any visible emissions (excursion) are observed the AQD approved malfunction abatement plan corrective procedures shall be initiated, and records of any corrective actions taken shall be maintained. **(40 CFR 64.6(c)(2), 40 CFR 64.7(d), 40 CFR 64.6(c)(1)(i), (ii), and (iii))**

3. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutantspecific 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))**

4. 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, in frequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**

5. 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))**

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))**

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. SVBAGHOUSE3	33 inches x 52 inches [2]	60 feet [2]	**R 336.1901 R 336.1205(3)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall implement a "Malfunction Abatement Plan and Control Equipment Monitoring Plan" that has been approved by the AQD District Supervisor. The plan shall include procedures for maintaining and operating in a satisfactory manner the process and add-on air pollution control device, or monitoring equipment during malfunction events, and a program for corrective action for such events. If the Malfunction Abatement Plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the Malfunction Abatement Plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor for approval. [2] **(R 336.1213(2), R 336.1213(3), R 336.1301, R 336.1331, R 336.1910)**

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

3. 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 ROP and 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).

EUBAGHOUSE5 EMISSION UNIT CONDITIONS

DESCRIPTION

Process group consisting of exhausts from the two dry flake day bins, conveyors and screener all controlled by Carter Day Baghouse5.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Carter-Day Baghouse5.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible Emissions	10% opacity, except due to uncombined water vapor [2]	Six-Minute Average	EUBAGHOUSE5	SC VI.1	**R 336.1301(1)(c)**
2. PM-10	0.01 lb. per 1,000 lbs. of exhaust gases calculated on a dry gas basis [2]	Hourly	EUBAGHOUSE5	SC VI.1	**R 336.1205(3)**
3. PM-10	0.90 pph [2]	Hourly	EUBAGHOUSE5	SC VI.1	**R 336.1205(3)**
4. PM	0.01 lb. per 1,000 lbs. of exhaust gases calculated on a dry gas basis [2]	Hourly	EUBAGHOUSE5	SC VI.1	**R 336.1331 R 336.1205(3)**
5. PM	0.90 pph [2]	Hourly	EUBAGHOUSE5	SC VI.1	**R 336.1205(3)**

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the EUBAGHOUSE5 process group equipment unless Baghouse5 is installed, maintained, and operated in a satisfactory manner.[2] **(R 336.1370, R 336.1910)**

2. The permittee shall not operate EUBAGHOUSE5 unless the Malfunction Abatement Plan approved by the AQD District Supervisor is implemented and maintained. [2] **(R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

[5]. The permittee shall visually inspect and record observations of visible emissions from the EUBAGHOUSE5 process and dust collection equipment on a daily basis. If visible emissions are observed, the permittee shall promptly determine whether corrective action is needed. If corrective action is needed, the permittee shall restore operation of the EUBAGHOUSE5 process equipment and associated dust collection equipment to their normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practice for minimizing emissions, including keeping a record of corrective action taken. [6] **(R 336.1370, R 336.1910)**

VII. REPORTING

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

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

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBAGHOUSE5	29 inches [2]	17.5 feet [2]	**R 336.1205(3)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall implement a “Malfunction Abatement Plan and Control Equipment Monitoring Plan” that has been approved by the AQD District Supervisor. The plan shall include procedures for maintaining and operating in a satisfactory manner the process and add-on air pollution control device, or monitoring equipment during malfunction events, and a program for corrective action for such events. If the Malfunction Abatement Plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the Malfunction Abatement Plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor for approval.[2] **(R 336.1213(2), R 336.1213(3), R 336.1301, R 336.1331, R 336.1910)**

Footnotes:

EUBAGHOUSE6 EMISSION UNIT CONDITIONS

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

DESCRIPTION

Process consisting of exhausts from the dryer burner fuel bin. Wood fines discharged from Baghouse1 pass thru a hammer mill then are blown to dryer burner fuel storage bin.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Flex-Kleen Baghouse6.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible Emissions	10% opacity, except due to uncombined water vapor [2]	Six-Minute Average	EUBAGHOUSE6	SC VI.1	**R 336.1301(1)(c)**
2. PM-10	0.01 lb. per 1,000 lbs. of exhaust gases calculated on a dry gas basis [2]	Hourly	EUBAGHOUSE6	SC VI.1	**R 336.1205(3)**
3. PM-10	0.14 pph [2]	Hourly	EUBAGHOUSE6	SC VI.1	**R 336.1205(3)**
4. PM	0.01 lb. per 1,000 lbs. of exhaust gases calculated on a dry gas basis [2]	Hourly	EUBAGHOUSE6	SC VI.1	**R 336.1331 R 336.1205(3)**
5. PM	0.14 pph [2]	Hourly	EUBAGHOUSE6	SC VI.1	**R 336.1205(3)**

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the EUBAGHOUSE6 process equipment including the Hammermill fines blower unless Baghouse6 is installed, maintained, and operated in a satisfactory manner. [2] **(R 336.1370, R 336.1910)**

2. The permittee shall not operate EUBAGHOUSE6 unless the Malfunction Abatement Plan approved by the AQD District Supervisor is implemented and maintained. [2] **(R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

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 visually inspect and record observations of visible emissions from the EUBAGHOUSE6 process and dust collection equipment on a daily basis. If visible emissions are observed, the permittee shall promptly determine whether corrective action is needed. If corrective action is needed, the permittee shall restore operation of the EUBAGHOUSE6 process equipment and associated dust collection equipment to their normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practice for minimizing emissions, including keeping a record of corrective action taken. [2] **(R 336.1370, R 336.1910)**

VII. REPORTING

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

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

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBAGHOUSE6	10 inches diameter	30 feet [2]	**R 336.1205(3)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall implement a “Malfunction Abatement Plan and Control Equipment Monitoring Plan” that has been approved by the AQD District Supervisor. The plan shall include procedures for maintaining and operating in a satisfactory manner the process and add-on air pollution control device, or monitoring equipment during malfunction events, and a program for corrective action for such events. If the Malfunction Abatement Plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the Malfunction Abatement Plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor for approval.[2] **(R 336.1213(2), R 336.1213(3), R 336.1301, R 336.1331, R 336.1910)**

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).

EUBAGHOUSE8 EMISSION UNIT CONDITIONS

DESCRIPTION

Process group consisting of exhausts from the groover booth and hammermill, which includes the 1st and 2nd pass trim saws and 1st pass clean-up conveyor.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Carter-Day Baghouse8.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible Emissions	10% opacity, except due to uncombined water vapor [2]	Six-Minute Average	EUBAGHOUSE8	SC VI.1	**R 336.1301(1)(c)**
2. PM	0.015 lb. per 1,000 lbs. of exhaust gases calculated on a dry gas basis [2]	Hourly	EUBAGHOUSE8	SC VI.1	**R 336.1205(3)**
3. PM-10	1.37 pph [2]	Hourly	EUBAGHOUSE8	SC VI.1	**R 336.1205(3)**
4. PM	0.015 lb. per 1,000 lbs. of exhaust gas calculated on a dry gas basis [2]	Hourly	EUBAGHOUSE8	SC VI.1	**R 336.1331 R 336.1205(3)**
5. PM	1.37 pph [2]	Hourly	EUBAGHOUSE8	SC VI.1	**R 336.1205(3)**

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the EUBAGHOUSE8 process group equipment unless Baghouse8 is installed, maintained, and operated in a satisfactory manner. [2] **(R 336.1370, R 336.1910)**

2. The permittee shall not operate EUBAGHOUSE8 unless the Malfunction Abatement Plan approved by the AQD District Supervisor is implemented and maintained. [2] **(R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

[7]. The permittee shall visually inspect and record observations of visible emissions from the EUBAGHOUSE8 process and dust collection equipment on a daily basis. If visible emissions are observed, the permittee shall promptly determine whether corrective action is needed. If corrective action is needed, the permittee shall restore operation of the EUBAGHOUSE8 process equipment and associated dust collection equipment to their normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practice for minimizing emissions, including keeping a record of corrective action taken. [8] **(R 336.1370, R 336.1910)**

VII. REPORTING

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

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

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBAGHOUSE8	46 inch [2]	38.8 feet [2]	**R 336.1205(3)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall implement a “Malfunction Abatement Plan and Control Equipment Monitoring Plan” that has been approved by the AQD District Supervisor. The plan shall include procedures for maintaining and operating in a satisfactory manner the process and add-on air pollution control device, or monitoring equipment during

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

malfunction events, and a program for corrective action for such events. If the Malfunction Abatement Plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the Malfunction Abatement Plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor for approval.[2] **(R 336.1213(2), R 336.1213(3), R 336.1301, R 336.1331, R 336.1910)**

Footnotes:

EUBAGHOUSE9 EMISSION UNIT CONDITIONS

DESCRIPTION

Process group consisting of exhausts from the fines recovery system, which includes a metering bin.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Carter-Day Baghouse9.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible Emissions	10% opacity, except due to uncombined water vapor [2]	Six-Minute Average	EUBAGHOUSE9	SC VI.1	**R 336.1301(1)(c)**
2. PM-10	0.025 lb. per 1,000 lbs. of exhaust gases calculated on a dry gas basis [2]	Hourly	EUBAGHOUSE9	SC VI.1	**R 336.1205(3)**
3. PM-10	1.37 pph [2]	Hourly	EUBAGHOUSE9	SC VI.1	**R 336.1205(3)**
4. PM	0.025 lb. per 1,000 lbs. of exhaust gases calculated on a dry gas basis [2]	Hourly	EUBAGHOUSE9	SC VI.1	**R 336.1331 R 336.1205(3)**
5. PM	1.37 pph [2]	Hourly	EUBAGHOUSE9	SC VI.1	**R 336.1205(3)**

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the EUBAGHOUSE9 process group equipment unless Baghouse9 is installed, maintained, and operated in a satisfactory manner. [2] **(R 336.1370, R 336.1910)**

2. The permittee shall not operate EUBAGHOUSE9 unless the Malfunction Abatement Plan approved by the AQD District Supervisor is implemented and maintained. [2] **(R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

[9]. The permittee shall visually inspect and record observations of visible emissions from the EUBAGHOUSE9 process and dust collection equipment on a daily basis. If visible emissions are observed, the permittee shall promptly determine whether corrective action is needed. If corrective action is needed, the permittee shall restore operation of the EUBAGHOUSE9 process equipment and associated dust collection equipment to their normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practice for minimizing emissions, including keeping a record of corrective action taken. [10] **(R 336.1370, R 336.1910)**

VII. REPORTING

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

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

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBAGHOUSE9	24 inch [2]	48 feet [2]	**R 336.1205(3)**

IX. OTHER REQUIREMENT(S)

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

1. The permittee shall implement a "Malfunction Abatement Plan and Control Equipment Monitoring Plan" that has been approved by the AQD District Supervisor. The plan shall include procedures for maintaining and operating in a satisfactory manner the process and add-on air pollution control device, or monitoring equipment during malfunction events, and a program for corrective action for such events. If the Malfunction Abatement Plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the Malfunction Abatement Plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor for approval.[2] **(R 336.1213(2), R 336.1213(3), R 336.1301, R 336.1331, R 336.1910)**

Footnotes:

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
FGFACILITY	All process equipment including equipment covered by other permits, grand-fathered equipment, and exempt equipment.	EUDRYERRC, EUKONUSTOSH, EUPRESS, EUGEKATOH, EUCOATING, EUBAGHOUSE1, EUBAGHOUSE2, EUBAGHOUSE3, EUBAGHOUSE5, EUBAGHOUSE6, EUBAGHOUSE8, EUBAGHOUSE9
FGCOLDCLEANERS	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	EUCLEANERS
FGCIRICEMACT	Compression ignition, diesel fired back-up generator for the emergency fire water pump rated at 130 brake horsepower.	EUFIREPUMP
FGSIRICEMACT	One spark ignition, gasoline fired back-up generator. The emergency dryer back-up generator rated at 20 horsepower.	EUDRYBACKUP
FGCIRICEMACTNEW	Compression ignition, diesel fired back-up generator for Konus rated at 22 horsepower.	EUTHODIESEL

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

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Each Individual HAP	9.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2	R 336.1205(1)
2. Aggregate HAPs	24.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2	R 336.1205(1)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall determine the HAP content of any material as received and as applied, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311. **(R 336.1205(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 10th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(3))**

2. The permittee shall keep records of the most recent compliance stack testing completed for any emission unit in FGFACILITY. **(R 336.1205(3))**

3. The permittee shall keep the following information on a monthly basis for FGFACILITY:
   a) Gallons or pounds of each HAP containing material used.
   b) Where applicable, gallons or pounds of each HAP containing material reclaimed.
   c) HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.
   d) Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
   e) Individual and aggregate HAP emission calculations determining the cumulative emission rate of each, in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. Emission calculations shall use the results from the most recent emissions testing, or other methods acceptable to the AQD District Supervisor, such as mass balance or approved emission factors. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(3))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

[11]. The permittee shall implement a Fugitive Dust Control Program approved by the Air Quality Division District Supervisor to limit fugitive dust emissions from the roadways, the material storage piles, stock pile areas, and

FGCOLDCLEANERS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

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

Emission Unit: EUCLEANERS

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

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

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

II. MATERIAL LIMIT(S)

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

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

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

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

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The cold cleaner must meet one of the following design requirements:
   a. The air/vapor interface of the cold cleaner is no more than ten square feet. **(R 336.1281(h))**
   b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. **(R 336.1285(r)(iv))**

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

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

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

5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:
   a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. **(R 336.1707(2)(a))**
   b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. **(R 336.1707(2)(b))**
   c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. **(R 336.1707(2)(c))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

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

2. The permittee shall maintain the following information on file for each cold cleaner: **(R 336.1213(3))**
   a. A serial number, model number, or other unique identifier for each cold cleaner.
   b. The date the unit was installed, manufactured or that it commenced operation.
   c. The air/vapor interface area for any unit claimed to be exempt under Rule 281(h).
   d. The applicable Rule 201 exemption.
   e. The Reid vapor pressure of each solvent used.
   f. If applicable, the option chosen to comply with Rule 707(2).

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

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

VII. REPORTING

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

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

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

See Appendix 8

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

FGCIRICEMACT FLEXIBLE GROUP CONDITIONS

DESCRIPTION

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at an area source of HAP emissions, existing emergency, combustion ignition RICE less than 500 brake hp, which commenced construction or reconstruction **before June 12, 2006**.

Emission Unit: EUFIREPUMP

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

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

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Each CI engine shall be installed, maintained, and operated in a satisfactory manner. A list of management practice requirements as specified in 40 CFR 63.6603 and Table 2d, Item 4 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 work practices specified in 40 CFR Part 63, Subpart ZZZZ, Table 2d:
   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.

2. 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 63.6603, 40 CFR Part 63, Subpart ZZZZ, Table 2d, Item 4)**

3. The permittee may utilize an oil analysis program in order to extend the specified oil change requirement. The oil analysis must be performed at the same frequency as oil changes are required. The oil analysis program must analyze the parameters and keep records as required in 63.6625(i). **(40 CFR 63.6625(i))**

4. Each CI engine shall be maintained and operated per the manufacturer's emission related written instructions or the permittee shall 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)**

5. 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))**

6. The permittee shall not allow the CI engine/s to exceed 100 hours 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))**

7. Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(1)(iii)) of this section. **(40 CFR 63.6640(f)(1)(iii))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip the engine with and maintain 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))**

1. If using an oil analysis program for CI engine/s analysis of Total Base Number, Viscosity, and percent water is required. **(40 CFR 63.6625(i))**

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.3. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(d), 40 CFR 63.6660)**

4. For each 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))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

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

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and 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

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at an area source of HAP emissions, existing emergency, spark ignition RICE less than 500 brake hp, which commenced construction or reconstruction **before June 12, 2006**.

Emission Unit: EUDRYBACKUP

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

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

II. MATERIAL LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	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 is specified in 40 CFR 63.6603 and Table 2d, Item 5 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 work practices specified in 40 CFR Part 63, Subpart ZZZZ, Table 2d:
   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.

2. 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 for which the risk was deemed unacceptable. **(40 CFR 63.6603, 40 CFR Part 63, Subpart ZZZZ, Table 2d, Item 5)**

3. 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)**

4. 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)**

5. 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))**

6. You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for nonemergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2). **(40 CFR 63.6640(f)(2))**

7. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. **(40 CFR 63.6640(f)(2)(ii))**

8. Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. **(40 CFR 63.6640(f)(2))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip the engine with and maintain 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 for 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))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

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

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and 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).

FGRICEMACTNEW FLEXIBLE GROUP CONDITIONS

DESCRIPTION

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at an area source of HAP emissions, new RICE all sizes. An affected source that meets any of the criteria in paragraphs 40 CFR 63.6590(c)(1) through (7) of this section must meet the requirements of 40 CFR Part 63, Subpart ZZZZ by meeting the requirements of 40 CFR Part 60, Subpart IIII, for compression ignition engines or 40 CFR Part 60, Subpart JJJJ, for spark ignition engines.

Emission Unit ID: EUTOHDIESEL

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

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

II. MATERIAL LIMITS

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

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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))

See Appendix 8

VIII. STACK/VENT RESTRICTIONS

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

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

IX. OTHER REQUIREMENTS

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

E. NON-APPLICABLE REQUIREMENTS

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

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 Environment, Great Lakes and Energy	°F gr	Degrees Fahrenheit 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
EGLE	Michigan Department of Environment, Great Lakes, and Energy	NO_x ng	Oxides of Nitrogen 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

Appendix 2. Schedule of Compliance

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

Appendix 3. Monitoring Requirements

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

Appendix 4. Recordkeeping

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-N0780-2011. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-N0780-2011 is being reissued as Source-Wide PTI No. MI-PTI-N0780-2018

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
99-05B	NA	Modification of testing frequency requirements	EUKONUSTOH EUDRYERRC EUPRESS
99-05c	NA	Installation of a new trimline, consisting of two coating lines with drying ovens, and a saw and a board grinder both vented to Baghouse #10. In addition, increase HAP opt out limit to 9.9 tpy for individual HAP and 24.9 tpy for aggregate HAPs.	EUTRIMSAW&GRIND EUTRIMPAINT FGFACILITY

The following table lists the ROP amendments or modifications issued after the effective date of ROP No. MI-ROPN0780-2018.

Permit to Install Number	ROP Revision Application Number - Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
43-19	201900186 / March 19, 2020	This Minor Modification was to incorporate PTI 43-19 into the ROP. PTI 43-19 allowed for the installation of three additional flights on EUPRESS and the addition of vented platens to all 17 flights. The description of EUPRESS was updated to describe the addition of the flights with vented platens and the platens will route approximately 30% of the exhaust to the dryer system (EUDRYERRC) to control emissions. Also, the Formaldehyde emission limit was increased from 3.1 pph to 4.1 pph, and the Material Limit for Finished Product was changed from 98,852 tons of finished product per year (tfp/yr) to 109,686 tfp/yr. Other chages include a clarification in the description of EUKONUSTOH to indicate only the thermal oil heaters are fired by wood fuel not the two economizers. The economizers do not combust any fuel. Also, the description of EUDRYERRC includes language identifying a portion of the press emissions will be routed to the dryer system and those emissions will be controlled by a WESP and RTO. The Formaldehyde emission limit in EUDRYERRC was increased from 0.67 pph to 1.11 pph. Additionally, the facility requested the removal of EUTRIMSAW&GRIND and EUTRIMPAINT from the ROP since these processes were never installed at the facility.	EUKONUSTOH, EUDRYERRC, EUPRESS

Appendix 7. Emission Calculations

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

Appendix 8. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

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

B. Other Reporting

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

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 conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

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

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

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

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of 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
EUDRYERRC	Dryer System consisting of: a triple pass dryer drum with heat provided by the existing 42 million BTU per hour wood fired McConnell burner and/or three independently operated Maxon natural gas burners (19.5 million Btu per hour each) and an exhaust gas recirculation system. The dryer capacity is 16.5 tons per hour of dried flakes. A portion of the press (EUPRESS) emissions are routed to the Dryer System. Emissions are controlled by a wet electrostatic precipitator (WESP) and a regenerative thermal oxidizer (RTO). The wet ESP is an E-tube unit with two separately energized electrical sections operating in parallel.	2005	NA
EUPRESS	Press System including the Board Press and fugitive emissions from the mat forming line. The press has 17 flights with vented platens on all flights that route a portion of the Press System exhaust to the Dryer System for control. The vented platen press emissions are controlled by the Dryer System WESP and RTO and are accounted for in the emission limits under EUDRYERRC. The limits for EUPRESS are applicable to the portion of the exhaust that routed to a regenerative catalytic oxidizer (RCO).	1985 1996 2019 TBD	NA

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.

EUDRYERRC
EMISSION UNIT CONDITIONS

DESCRIPTION

Dryer System consisting of a triple pass dryer drum with heat provided by the existing 42 million BTU per hour wood fired McConnell burner and/or three independently operated Maxon natural gas burners (19.5 million Btu per hour each) and an exhaust gas recirculation system. The dryer capacity is 16.5 tons per hour of dried flakes. A portion of the press (EUPRESS) emissions are routed to the Dryer System.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Emissions are controlled by a wet electrostatic precipitator (WESP) and a regenerative thermal oxidizer (RTO). The wet ESP is an E-tube unit with two separately energized electrical sections operating in parallel.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM-10	0.020 gr / dscf	Hourly	EUDRYERRC	SC V.1	R 336.1205(3)
2. PM-10	7.9 pph	Hourly	EUDRYERRC	SC V.1	R 336.1205(3)
3. PM	0.020 gr / dscf	Hourly	EUDRYERRC	SC V.1	R 336.1205(3)
4. PM	7.9 pph	Hourly	EUDRYERRC	SC V.1	R 336.1205(3)
5. SO_2	0.4 pph	Hourly	EUDRYERRC	SC V.1	R 336.1205(3)
6. NOx	14.8 pph	Hourly	EUDRYERRC	SC V.1	R 336.1205(3)
7. CO	23.98 pph	Hourly	EUDRYERRC	SC V.1	R 336.1205(3)
8. CO	78.34 tpy	12-month rolling time period as determined at the end of each calendar month *	EUDRYERRC	SC VI.1	R 336.1205(3)
9. VOC	5.12 pph**	Hourly	EUDRYERRC	SC V.1	R 336.1205(3) R 336.1702(c)
10. VOC	14.07 tpy	12-month rolling time period as determined at the end of each calendar month *	EUDRYERRC	SC VI.1	R 336.1205(3) R 336.1702(c)
11. Acetaldehyde	1.17 pph[1]	Hourly	EUDRYERRC	SC V.1	R 336.1225
12. Acrolein	0.195 pph[1]	Hourly	EUDRYERRC	SC V.1	R 336.1225
13. Formaldehyde	1.11 pph[1]	Hourly	EUDRYERRC	SC V.1	R 336.1225
14. Manganese	0.03 pph[1]	Hourly	EUDRYERRC	SC V.1	R 336.1225

*If the tested emission factor for EUDRYERRC is lower than the emission limit for CO and/or VOC in this section, the tested emission factor may be used to determine compliance with the tons per year limit.

**The VOC limit is based on a maximum drying rate of 16.50 oven dry tons/hour.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Coniferous Wood	30% by volume	12-month rolling time period as determined at the end of each calendar month	EUDRYERRC	SC VI.13	R 336.1205(3)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUDRYERRC unless the cyclone, the wet electrostatic precipitator, and the RTO are installed, maintained and operated in a satisfactory manner. **(R 336.1370, R 336.1910)**

2. The permittee shall not operate EUDRYERRC unless the hourly average minimum combustion temperature in the RTO is greater than 1525 degrees Fahrenheit or the minimum hourly average combustion temperature identified during the most recent acceptable compliance test. **(R 336.1910)**

3. The permittee shall not introduce wash liquor from the wet electrostatic precipitator to EUDRYERRC. **(R 336.1910)**

4. The permittee shall keep a record of the date and time that each RTO bake out is initiated and the length of each bake out. **(R 336.1201(3))**

5. The permittee shall not operate EUDRYERRC unless the "Malfunction Abatement Plan and Control Equipment Monitoring Plan" (MAP) that has been approved by the AQD District Supervisor is implemented and maintained. The plan shall include procedures for maintaining and operating in a satisfactory manner the process and add-on air pollution control device, monitoring equipment during malfunction events, and a program for corrective action for such events. If the Malfunction Abatement Plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the Malfunction Abatement Plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor for approval. **(R 336.1301, R 336.1331, R 336.1910, R 336.1911)**

6. The permittee shall not operate EUDRYERRC for more than one hour without the exhaust gas recirculation system functioning. The permittee shall include procedures in the MAP for operating the exhaust recirculation system in a satisfactory manner, monitoring equipment during malfunction events, and a program for corrective action for such events. **(R 336.1205, R 336.1301, R 336.1331, R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall verify PM10, PM, CO, NOX, VOC, Acetaldehyde, Acrolein, Formaldehyde, Manganese, and Methanol emission rates from EUDRYERRC by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed at a minimum frequency of once every five years. Testing shall be performed using an approved EPA Method listed in the table below. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol.

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10	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
HAPs	40 CFR Part 63, Appendix A
Metals	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A

No less than 30 days prior to testing, the permittee shall submit a complete test protocol to the AQD Technical Programs Unit and District Office. The AQD must approve the final protocol 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 336.1205(3), R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

2. The permittee shall conduct daily visible emissions observations from EUDRYERRC using EPA Method 22 or an alternate test method approved by the AQD. The AQD District Supervisor must approve an alternate test method prior to testing. **(R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep a monthly record of the amount of CO and VOC emitted from EUDRYERRC, calculated using the emission rates determined during the most recent available compliance testing, per an acceptable method as approved by the District Supervisor. By the tenth day of each calendar month, the permittee shall calculate the CO and VOC emission for the previous 12-calendar month period. **(R 336.1205(3), R 336.1702)**

2. The permittee shall monitor the RTO combustion chamber temperature at the middle of the combustion chamber using a thermocouple and shall record the combustion chamber temperature on a continuous basis. The thermocouple shall be calibrated as needed. **(R 336.1201(3))**

3. The permittee shall maintain a summary record of RTO temperature monitoring system downtime. The permittee shall keep a summary record of all hourly average minimum RTO combustion temperatures less than 1525 degrees Fahrenheit (or the minimum hourly average combustion temperature identified during the most recent acceptable compliance test). The summary shall include the cause if known and details of corrective action or action taken to discontinue operation of EUDRYERRC as required by SC III.2. **(R 336.1201(3))**

4. The permittee shall monitor, on an hourly basis, the temperature in the wet electrostatic precipitator (ESP) measured at the outlet of the quench section using a thermocouple and shall record the temperature on a continuous basis. The thermocouple shall be calibrated as needed. **(R 336.1201(3))**

5. The permittee shall continuously monitor and record hourly the temperature at the outlet of the quench section using a thermocouple as an indicator of proper operation of the ESP. The indicator range is an hourly average quench section temperature less than 180 degrees Fahrenheit. **(R 336.1201(3))**

6. The permittee shall maintain a summary record of the wet ESP temperature monitoring system downtime. The permittee shall keep a summary record of all hourly quench section temperatures greater than 180 degrees Fahrenheit including keeping a summary record of corrective action taken. **(R 336.1201(3), R 336.1910)**

7. The permittee shall monitor and record on an hourly basis the secondary voltage for each of the two parallel sections of the wet ESP. **(R 336.1201(3))**

8. Precipitator grid voltages below 30 kilovolts caused by a malfunction shall be recorded. The permittee shall keep a summary record of all hourly precipitator grid voltages less than 30 kilovolts that are not caused by automated hourly flushing action including a summary record of corrective action taken and voltage monitoring system downtime. **(R 336.1201(3), R 336.1910)**

9. The permittee shall keep a monthly record of the amount of finished product produced. By the tenth day of each calendar month, the permittee shall calculate the amount of finished product produced for the previous 12-calendar month period. **(R 336.1205(3))**

10. The permittee shall keep a monthly record of the amount of coniferous and non-coniferous wood used to manufacture the finished product. By the tenth day of each calendar month, the permittee shall calculate the percentage by volume of coniferous wood used to manufacture the finished product for the previous 12-calendar month period. **(R 336.1205(3))**

11. The permittee shall keep a record of the date and time that each RTO bake out is initiated and the length of each bake out. **(R 336.1201(3))**

12. The permittee shall, at all times, maintain the RTO and Wet ESP monitoring system, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. **(R 336.1201(3))**

13. The permittee shall conduct temperature and voltage readings at all required intervals that the equipment is operating except for defined malfunctions, repairs and QA/QC activities. **(R 336.1201(3))**

14. The permittee shall record a daily visual opacity observation as an indicator of proper operation of the dust collector. The indicator of proper operation is the absence of visible emissions. **(R 336.1201(3))**

15. The permittee shall keep records of preventative maintenance, repairs, and corrective actions taken for EUDRYERRC and the WESP and RTO, as specified by the MAP. **(R 336.1301, R 336.1331, R 336.1910)**

VII. REPORTING

1. 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. **(R 336.2001(3))**

2. 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))**

3. 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))**

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. SVRTOSTACK	64	100	R 336.1205(3), R 336.1225

IX. OTHER REQUIREMENT(S)

NA

Commented [RM(1]: Moved to section III

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

EUPRESS
EMISSION UNIT CONDITIONS

DESCRIPTION

Press System including the Board Press and fugitive emissions from the mat forming line. The press has 17 flights with vented platens on all flights that route a portion of the Press System exhaust to the Dryer System for control. The vented platen press emissions are controlled by the Dryer System WESP and RTO and are accounted for in the emission limits under EUDRYERRC. The limits for EUPRESS are applicable to the portion of the exhaust that is routed to a regenerative catalytic oxidizer (RCO).

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Regenerative Catalytic Oxidizer (RCO)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM10	11.16 pph	Hourly	EUPRESS	SC V.1	R 336.1205(3)
2. PM10	40.9 tpy	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.2	R 336.1205(3)
3. PM2.5	11.16 pph	Hourly	EUPRESS	SC V.1	R 336.1205(3)
4. PM2.5	40.9 tpy	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.2	R 336.1205(3)
5. PM	11.16 pph	Hourly	EUPRESS	SC V.1	R 336.1205(3)
6. PM	40.9 tpy	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.2	R 336.1205(3)
7. NOx	2.77 pph	Hourly	EUPRESS	SC V.1	R 336.1205(3)
8. CO	3.39 pph	Hourly	EUPRESS	SC V.1	R 336.1205(3)
9. CO	13.3 tpy	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.2	R 336.1205(3)
10. VOC	8.26 pph	Hourly	EUPRESS	SC V.1	R 336.1205(3) R 336.1702
11. VOC	30.3 tpy	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.2	R 336.1205(3) R 336.1702
12. Formaldehyde	4.1 pph[1]	Hourly	EUPRESS	SC V.1	R 336.1225

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
13. Formaldehyde	19,800 lbs/yr[1]	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.2	R 336.1225(2)
14. Formaldehyde	4,417 lbs/yr	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.2	R 336.1205(3)
15. Methylene Diphenyl Isocyanate (MDI)	0.53 pph[1]	Hourly	EUPRESS	SC V.1	R 336.1225
16. Phenol	2.0 pph[1]	Hourly	EUPRESS	SC V.1	R 336.1225

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Finished Product	109,686 tons of finished products per year	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.3	R 336.1205(3)
2. Coniferous Wood	30% by volume	12-month rolling time period as determined at the end of each calendar month	EUPRESS	SC VI.4	R 336.1205(3)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUPRESS unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the RCO, has been submitted within 90 days of permit issuance, 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 336.1205(3), R 336.1702(a), R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUPRESS unless the RCO is installed, maintained and operated in a satisfactory manner acceptable to the AQD District Supervisor. Satisfactory operation of the RCO includes maintaining a minimum operating temperature of 750°F, or a minimum temperature that has been demonstrated to be acceptable in the most recent AQD-approved emissions compliance test. **(R 336.1224, R 336.1225, R 336.1702, R 336.1910)**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, acceptable to the AQD District Supervisor, a temperature monitoring device in the combustion chamber of the RCO to continuously monitor and record the temperature during operation of EUPRESS. **(R 336.1224, R 336.1225, R 336.1702, 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 the RCO for EUPRESS has been commissioned, the permittee shall verify PM, PM10, PM2.5, CO, NO_x, VOC, Formaldehyde, MDI, Phenol, and methanol emission rates from EUPRESS by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed at a minimum frequency of once every five years. Testing shall be performed using an approved EPA Method listed in the table below. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol.

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
HAPs	40 CFR Part 63, Appendix A
Metals	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A

   No less than 30 days prior to testing, the permittee shall submit a complete test protocol to the AQD Technical Programs Unit and District Office. The AQD must approve the final protocol 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 336.1205(3), R 336.1702, R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804)**

2. Within 180 days after EUPRESS resumes regular operation after the installation of the RCO, the permittee shall verify VOC destruction efficiency of the RCO by testing at owner's expense, in accordance with Department requirements. No less than 60 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. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1702, R 336.1910, R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the tenth day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1225, R 336.1702(a))**

2. The permittee shall keep monthly and 12-month rolling time period records of the amount of PM10, PM2.5, PM, CO, VOCs, and Formaldehyde emitted from EUPRESS, calculated using the emission rates

determined during the most recent compliance testing, per an acceptable method as approved by the District Supervisor. **(R 336.1205, R 336.1225, R 336.1702(a))**

3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling record of the amount of finished product produced in EUPRESS. **(R 336.1205, R 336.1225, R 336.1702(a))**

4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling records of the amount of coniferous and non-coniferous wood used to manufacture the finished product. **(R 336.1205, R 336.1225, R 336.1702(a))**

5. The permittee shall monitor and record, in a satisfactory manner acceptable to the AQD District Supervisor, the temperature in the combustion chamber of the RCO, on a continuous basis, during operation of EUPRESS. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. **(R 336.1224, R 336.1225, R 336.1702, R 336.1910)**

6. The permittee shall keep records of preventative maintenance, repairs, and corrective actions taken for EUPRESS and the RCO, as specified by the MAP. **(R 336.1205(3), R 336.1702(a), R 336.1910, R 336.1911)**

VII. REPORTING

1. Within 10 days after completion of the installation and commissioning of the RCO authorized by this Permit to Install, the permittee shall notify the AQD District Supervisor, in writing, of the completion of the activity. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVPRESSRCOSTACK	80	100	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The special conditions in this PTI do not go into effect until the permittee notifies the AQD that the RCO has been installed and commissioned. Upon that notification, the special conditions of this PTI go into effect immediately. **(R 336.1201)**

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

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Each Individual HAP	9.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2	R 336.1205(1)
2. Aggregate HAPs	24.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2	R 336.1205(1)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall determine the HAP content of any material as received and as applied, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311. **(R 336.1205(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 10th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(3))**

2. The permittee shall keep records of the most recent compliance stack testing completed for any emission unit in FGFACILITY. **(R 336.1205(3))**

3. The permittee shall keep the following information on a monthly basis for FGFACILITY:

a) Gallons or pounds of each HAP containing material used.
b) Where applicable, gallons or pounds of each HAP containing material reclaimed.
c) HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.
d) Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
e) Individual and aggregate HAP emission calculations determining the cumulative emission rate of each, in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. Emission calculations shall use the results from the most recent emissions testing, or other methods acceptable to the AQD District Supervisor, such as mass balance or approved emission factors. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(3))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall implement a Fugitive Dust Control Program approved by the Air Quality Division District Supervisor to limit fugitive dust emissions from the roadways, the material storage piles, stock pile areas, and other operations throughout the plant, including the keeping of records of fugitive dust control activities and dates carried out. **(R 336.1201(3))**

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

Compliance Assurance Monitoring Plan

Louisiana-Pacific Corporation
Newberry, Michigan

May 2022

Table of Contents

List of Appendices

List of Acronyms

CAM	Compliance Assurance Monitoring
CD	Control Device
CFR	Code of Federal Regulations
CMS	Continuous Monitoring System
CO	Carbon Monoxide
DRE	Destruction efficiency
EFB	Electrified Filtered Bed
EU	Emission Unit
FR	Federal Register
HAP	Hazardous Air Pollutant
Inches w. g.	Inches of Water, Gauge Pressure
LP	Louisiana-Pacific Corporation
MACT	Maximum Achievable Control Technology
MPAP	Malfunction, Prevention and Abatement Plan
NSPS	New Source Performance Standards
PM	Particulate Matter
PPH	Pounds per Hour
PS	Performance Specification
PSEU	Pollutant-Specific Emission Unit
QA/QC	Quality Assurance/Quality Control
QIP	Quality Improvement Plan
RCO	Regenerative Catalytic Oxidizer
RTO	Regenerative Thermal Oxidizer
SCFM	Standard Cubic Feet per Minute
SOP	Standard Operating Procedure
SV	Stack / Vent
TFP	Tons of Finished Product
TPY	Tons per Year
TSP	Total Suspended Particulate
USEPA	United States Environmental Protection Agency
VE	Visible Emissions
VOC	Volatile Organic Compound
WESP	Wet Electrostatic Precipitator

Section 1
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 Newberry, Michigan. The monitoring, documenting 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 SMARTSIDE siding board in Newberry, Michigan, under Permit Number MI-ROP-N0780-2018a. Equipment within the facility is grouped by process operations into emission units for permitting purposes. Emission units potentially subject to CAM at LP include:

- EUDRYERRC – A flake drying system controlled by a wet electrostatic precipitator (WESP) and a regenerative thermal oxidizer (RTO)
- EUPRESS-A 17-flight board press with vented platens. This system is mostly controlled by a regenerative catalytic oxidizer (RCO); fugitive emissions from board pressing do exist.
- EUKONUSTOH – Two thermal oil heater and cyclone dust collectors for each heater exhausted into Baghouse #4.
- EUBAGHOUSE1 – A baghouse controlling particulate emissions from Diamond roll screener, Baghouse #1 outfeed, and collected fines from Baghouse #5.
- EUBAGHOUSE2 – A baghouse controlling particulate emissions from mat forming line, flake application operation, flying cutoff saw, flake reclaim system, flake fomerers, flake conveyors, and mat side suction.
- EUBAGHOUSE3 – A baghouse controlling particulate emissions from thermail oil fuel metering bin and waferizer green fines blower.
- EUBAGHOUSE5 – A baghouse controlling particulate emissions from two dry flake day bins, conveyors, and a screener.
- EUBAGHOUSE6 – A baghouse controlling particulate emissions from the dryer burner fuel bin.
- EUBAGHOUSE8 – A baghouse controlling particulate emissions from the fines recovery system, which is part of the fabrication operations.

- EUBAGHOUSE9 – A baghouse controlling particulate emissions from the fines recovery system, which is part of the fabrication operations.

Section 2
CAM Requirement 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-N0780-2018a, issued by the Michigan Department of Environment, Great Lakes, and Energy: Air Quality Division, identifies individual emission units and emission units based on process groupings.

The 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.

As a result of the CAM applicability review, the emission units that require CAM plans include the following:

- EUDRYERRC: CAM plan required for PM and PM-10 emission limits utilizing a wet electrostatic precipitator as the control device and volatile organic compound (VOC) emission limits utilizing a regenerative thermal oxidizer (RTO) as control.
- EUKONUSTOH: CAM plan required for PM and PM_{10} emission limits utilizing a baghouse as the control device.
- EUPRESS: CAM plan required for volatile organic compound (VOC) emission limits utilizing a regenerative catalytic oxidizer (RCO) as control.

Appendix A includes a 2016 memorandum discussing why the remaining emission units are either exempt from or not subject to CAM.

Section 3
CAM Plans by Type of Emission Control Device

3.1 Wet Electrostatic Precipitators for Particulate Control

EUDRYERRC utilizes a wet electrostatic precipitator (WESP) to control particulate emissions as required under the permit. Transformer secondary voltage and quench outlet temperature will be used as the compliance indicators. The details of the CAM Plan for this PSEU are in Section 4.

3.2 Regenerative Thermal Oxidizer for Volatile Organic Compound Control

EUDRYERRC utilizes a regenerative thermal oxidizer (RTO) to control volatile organic compound (VOC) emissions as required under the permit. Oxidizer temperature will be used as the compliance indicator. The details of the CAM Plan for this PSEU are in Section 5.

3.3 Regenerative Catalytic Oxidizer for Volatile Organic Compound Control

EUPRESS utilizes a regenerative catalytic oxidizer (RCO) to control volatile organic compound (VOC) emissions as required under the permit. Oxidizer temperature will be used as the compliance indicator. The details of the CAM Plan for this PSEU are in Section 6.

3.4 Baghouse for Particulate Control

EUKONUSTOH utilizes a baghouse to control particulate matter emissions, when firing wood fuel, as required under the permit. Baghouse visible emission monitoring will be used as the compliance indicators. Specifically, daily Method 22 observations are conducted on EUKONUSTOH when the mill is operating. The details of the CAM Plan for this PSEU are included in Section 7.

Section 4
CAM Plan for EUDRYERRC, Wet Electrostatic Precipitator

4.1 Background

4.1.1 Emission Unit

Description: Dryer System consisting of a triple pass dryer. Emission control is provided by a wet electrostatic precipitator (WESP) and a regenerative thermal oxidizer (RTO). The wet ESP is an E-tube unit with two separately energized electrical sections operating in parallel.

Identification: EUDRYERRC

Facility: Louisiana-Pacific Corporation
7299 North County Road 403
Newberry, Michigan

4.1.2 Applicable Regulation, Emission Limit, Monitoring Requirements

Permit No: MI-ROP-N0780-2018a

Emission Limits

Particulate Matter: PM/PM-10: 0.020 gr/dscf, 7.9 pph (R336.1205(3))

Monitoring Requirements: Transformer voltage, Quench outlet temperature

4.2 Monitoring Approach

	Secondary Transformer Voltage	Quench Outlet Temperature
A. Indicator	Record the transformer voltage for each of the two parallel sections on hourly basis.	Quench outlet temperature will be recorded once per hour.
B. Indicator Range	Target voltage range is greater than 30 kV hourly average. Hourly average excursions lower than 30KV trigger a dryer interlock shutdown and system alarm to notify operator. The Shift Supervisor is notified and a reportable events form must be filled out and turned into the plant Environmental Manager.	The outlet temperature range is less than 180 ^{o}F hourly average. Hourly average excursions greater than 180 ^{o}F trigger a dryer interlock shutdown and system alarm to notify operator. The Shift Supervisor is notified and a reportable events form must be filled out and turned into the plant Environmental Manager.
C. QIP Threshold	Optional, not included at this time.	Optional, not included at this time.

4.3 Performance Criteria

	Secondary Transformer Voltage	Quench Outlet Temperature
A. Data Representativeness	Data is continuously recorded within HMI system located in Press Control Room.	Data is continuously recorded within HMI system located in Press Control Room.
B. Verification of Operational Status	NA	NA
C. QA/QC Practices and Criteria	WESP equipment calibrated as part of facility preventative maintenace program. The transformer oil is tested for dielectric strength as needed.	The thermocouple gauges are replaced on a regular preventative maintenance schedule with new precalibrated equipment or operationally verified within tolerances as part of facility preventative maintenace program.
D. Monitoring Frequency	Transformer voltage is monitored continuously.	Quench outlet temperature is monitored continuously.
E. Data Collection Procedure	Monitoring data is continuously recorded in Active Factory.	Monitoring data is continuously recorded in Active Factory.

	Secondary Transformer Voltage	Quench Outlet Temperature
Averaging Period	NA	NA

4.4 Justification

4.4.1 Rationale for Selection of Performance Indicators

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. 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 Rationale 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 are above 30 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 outlet gas temperatures also was 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.

4.4.3 Performance Test

Performance testing of EUDRYERRC is required every 5 years.

Section 5
CAM Plan for EUDRYERRC, RTO

5.1 Background

5.1.1 Emission Unit

Description: Dryer System consisting of a triple pass dryer. Emission control is provided by a wet electrostatic precipitator (WESP) and a regenerative thermal oxidizer (RTO).

Identification: EUDRYERRC

Facility: Louisiana-Pacific Corporation
7299 North County Road 403
Newberry, Michigan

5.1.2 Applicable Regulation, Emission Limit, Monitoring Requirements

Permit No: MI-ROP-N0780-2018a

Emission Limits

VOC: 5.12 pph, 14.07 tpy (R336.1205(3), R336,1702(c))

Monitoring Requirements: Combustion Chamber Temperature

5.2 Monitoring Approach

	Combustion Chamber Temperature
A. Indicator	Temperature will be monitored on a continuous basis.
B. Indicator Range	An excursion is defined as an hourly average less than 1525 degrees F (or the minimum hourly average combustion temperature identified during the most recent acceptable compliance test). If the RTO combustion chamber temperature range is less than 1525°F hourly average, hourly average excursions trigger a dryer interlock shutdown and system alarm to notify operator. The Shift Supervisor is notified and a reportable events form must be filled out and turned into the plant Environmental Manager.
C. QIP Threshold	Optional, not included at this time.

5.3 Performance Criteria

	Combustion Chamber Temperature
A. Data Representativeness	Measurements are obtained from the middle of the combustion chamber.
B. Verification of Operational Status	NA
C. QA/QC Practices and Criteria	The thermocouple gauges are replaced on a regular preventative maintenance schedule with new precalibrated equipment or operationally verified within tolerances as part of facility preventative maintenace program.
D. Monitoring Frequency	Temperature is monitored continuously.
E. Data Collection Procedure	Monitoring data is continuously recorded in Active Factory.
Averaging Period	NA

5.4 Justification

5.4.1 Rationale for Selection of Performance Indicators

Temperature was selected as the performance indicator because it is indicative of good combustion and VOC destruction efficiency.

5.4.2 Rationale for Selection of Indicator Ranges

The indicator range chosen for the RTO temperature is greater than 1525 degrees F or the minimum hourly average combustion temperature identified during the most recent acceptable compliance test. Previous stack tests were conducted to demonstrate that adequate VOC removal is achieved at this temperature.

5.4.3 Performance Test

Performance testing of EUDRYERRC is required every 5 years.

Section 6
CAM Plan for EUPRESS

6.1 Background

6.1.1 Emission Unit

Description: Press System including the Board Press and fugitive emissions from the mat forming line. The press has 17 flights with vented platens on all flights that route a portion of the Press System exhaust to the Dryer System for control. The vented platen press emissions are controlled by the Dryer System WESP and RTO and are accounted for in the emission limits under EUDRYERRC. The limits for EUPRESS are applicable to the portion of the exhaust that is routed to a regenerative catalytic oxidizer (RCO).

Identification: EUPRESS

Facility: Louisiana-Pacific Corporation
7299 North County Road 403
Newberry, Michigan

6.1.2 Applicable Regulation, Emission Limit, Monitoring Requirements

Permit No: MI-ROP-N0780-2018a

Emission Limits

VOC: 8.26 pph, 30.3 tpy (R336.1205(3), R336,1702)

Monitoring Requirements: Combustion Chamber Temperature

6.2 Monitoring Approach

	Combustion Chamber Temperature
A. Indicator	Temperature will be monitored on a continuous basis.
B. Indicator Range	An excursion is defined as an hourly average less than 750 degrees F (or the minimum hourly average combustion temperature identified during the most recent acceptable compliance test). If the RCO combustion chamber temperature range is less than 750°F hourly average, hourly average excursions trigger a press interlock shutdown and system alarm to notify operator. The Shift Supervisor is notified, and a reportable events form must be filled out and turned into the plant Environmental Manager.
C. QIP Threshold	Optional, not included at this time.

6.3 Performance Criteria

	Combustion Chamber Temperature
A. Data Representativeness	Measurements are obtained from the middle of the combustion chamber.
B. Verification of Operational Status	NA
C. QA/QC Practices and Criteria	The thermocouple gauges are replaced on a regular preventative maintenance schedule with new precalibrated equipment or operationally verified within tolerances as part of facility preventative maintenace program.
D. Monitoring Frequency	Temperature is monitored continuously.
E. Data Collection Procedure	Monitoring data is continuously recorded in Active Factory.
Averaging Period	NA

6.4 Justification

6.4.1 Rationale for Selection of Performance Indicators

Temperature was selected as the performance indicator because it is indicative of good combustion and VOC destruction efficiency.

6.4.2 Rationale for Selection of Indicator Ranges

The indicator range chosen for the RCO temperature is greater than 750 degrees F or the minimum hourly average combustion temperature identified during the most recent acceptable compliance test. The 750 degree temperature was recommended by the manufacturer. This temperature was supported by compliance stack testing in March 2022.

6.4.3 Performance Test

Performance testing of EUPRESS is required every 5 years.

Section 7
CAM Plan for EUKONUSTOH

7.1 Background

7.1.1 Emission Unit

Description: Process group includes two 19.9 million BTU per hour Konus thermal oil heaters each equipped with a cyclone dust collector. The process group exhaust is controlled by Baghouse #4.

Identification: EUKONUSTOH

Facility: Louisiana-Pacific Corporation
7299 North County Road 403
Newberry, Michigan

7.1.2 Applicable Regulation, Emission Limit, Monitoring Requirements

Permit No: MI-ROP-N0780-2011

Emission Limits

Particulate Matter:	PM/PM-10: 0.081 lb/1000 pounds exhaust gas corrected to 50% excess air, R336.1205(3) PM/PM-10: 4.3 pph, R336.1205(3)
Monitoring Requirements:	US EPA METHOD 22 Visible Emission Monitoring

7.2 Monitoring Approach

	6-minute average of 20% opacity, except for one 6-minute average per hour not more than 27% opacity
A. Indicator	Daily visible emissions check using EPA Method 22 based procedures while operating.
B. Indicator Range	If a Method 22 observation or other visible emission oberservation indicates visible emissions above 6-minute average of 20% opacity, except for one 6-minute average per hour not more than 27% opacity, system is to be shut down and inspected for malfunction, a recordable events form is to be completed and the shift supervisor is to be notified if the 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.
C. QIP Threshold	Optional, not included at this time.

7.3 Performance Criteria

	6-minute average of 20% opacity, except for one 6-minute average per hour not more than 27% opacity
A. Data Representativeness	Observations are made by Shift Supervisor during daylight hours while plant is operating.
B. Verification of Operational Status	NA
C. QA/QC Practices and Criteria	NA
D. Monitoring Frequency	Daily observation while plant is operating.
E. Data Collection Procedure	Daily Method 22 observation form completed and stored in environmental files.
Averaging Period	NA

7.4 Justification

7.4.1 Rationale for Selection of Performance Indicators

Visible emission was selected as the performance indicator because it is indicative of good operation and maintenance of the baghouse. In general, baghouses are designed to operate without visible emissions. Monitoring visible emissions provides a means of detecting a change in operation that could lead to an increase in emissions. A visible

emission can indicate equipment malfunction, the bags are becoming inefficient, the air flow has increased, or broken or loose bags.

7.4.2 Rationale for Selection of Indicator Ranges

Visible emission detection may indicate baghouse malfunction or the bags may have fallen off their cages.

7.4.3 Performance Test

Performance testing of EUKONUS is required every 5 years.

Appendix A
Memorandum

TRC Environmental Corporation
150 North Patrick Blvd, Suite 180
Brookfield, WI 53045-5854

Main 262.879.1212 Fax 262.879.1220

Technical Memorandum

Date:	April 20, 2016
To:	Matthew Hieshetter, Louisiana-Pacific Corporation – Newberry
From:	TRC Environmental Corporation
Subject:	Compliance Assurance Monitoring (CAM) Applicability
Project No.:	255173.0000.0000
Attachment:	Attachment A – Emission Calculations

Background

Louisiana-Pacific Corporation (LP) manufactures SMARTSIDE siding board at its facility located in Newberry, Michigan. The Newberry facility is a major source and is required to obtain a Title V permit. Renewable Operating Permit (ROP) number MI-ROP-N0780-2011, issued by the Michigan Department of Environmental Quality, identifies individual emission units and emission units based on process groupings. As part of the Title V renewal process, the following emission units were evaluated for CAM applicability: Konus Thermal Oil Heater (TOH), Dryer System, Coating, and Baghouses 1, 2, 3, 5, 6, 8, and 9.

CAM Applicability

TRC Environmental Corporation (TRC) has reviewed the requirements under 40 CFR Part 64 relating to Compliance Assurance Monitoring (CAM). Per 40 CFR 64.2(a), the CAM Plan requirement applies to a 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.

The Newberry facility is a major Title V source, is required to obtain a Part 70 permit, and does operate control devices to meet specific emission limits. Table 1 below lists control devices operated at the Newberry facility that meet the second criteria and are, therefore, potentially subject to 40 CFR 64.2(a).

Table 1
Control Devices Potentially Subject to CAM Requirements

Control Device	Emission Unit	Pollutant
Wet Electrostatic Precipitator	EUDRYERRC	Particulate Matter
Regenerative Thermal Oxidizer	EUDRYERRC	Volatile organic compounds
Baghouse#4	EUKONUSTOH	Particulate Matter
Baghouse#1	EUBAGHOUSE#1	Particulate Matter
Baghouse#2	EUBAGHOUSE#2	Particulate Matter
Baghouse#3	EUBAGHOUSE#3	Particulate Matter
Baghouse#5	EUBAGHOUSE#5	Particulate Matter
Baghouse#6	EUBAGHOUSE#6	Particulate Matter
Baghouse#8	EUBAGHOUSE#8	Particulate Matter
Baghouse#9	EUBAGHOUSE#9	Particulate Matter

Note: EUCOATING is subject to a volatile organic compounds emission limit. However, the dry filters that serve EUCOATING control particulate emissions and therefore are not subject to CAM requirements.

The third criteria to evaluate is pre-control emissions for each of these emission units and compare them to the major source threshold of the applicable regulated air pollutant. Emission calculations are provided in Attachment A. Pre-control emissions for the dryer and Konus TOH are based on stack test results. Emissions for all the baghouses, except baghouse #3, are based on the allowable emissions (permit limit) and an estimated baghouse removal efficiency of 99%. Baghouse #3 emissions are based on the flowrate and a typical outlet grain loading rate. Table 2 below summarizes the results of this evaluation.

Table 2
Comparison of Pre-Control Emissions to the Major Source Threshold

Emission Unit	Pollutant	Pre-Control Emissions (TPY)	Major Source Threshold (TPY)
EUDRYERRC	PM/PM_{10}	194	100
	VOC	318	100
EUKONUSTOH	PM/PM_{10}	276	100
EUBAGHOUSE#1	PM/PM_{10}	2,540	100
EUBAGHOUSE#2	PM/PM_{10}	1,664	100
EUBAGHOUSE#3	PM/PM_{10}	53	100
EUBAGHOUSE#5	PM/PM_{10}	394	100
EUBAGHOUSE#6	PM/PM_{10}	63	100
EUBAGHOUSE#8	PM/PM_{10}	6,001	100
EUBAGHOUSE#9	PM/PM_{10}	6,001	100

The results indicate that the Dryer System, Konus TOH, and Baghouses 1, 2, 5, 8, and 9 may be subject to CAM requirements for particulate matter and the Dryer System is subject to the CAM requirement for volatile organic compounds.

Additional Considerations for Baghouses 1, 2, 5, 8 and 9

All of the baghouses, with the exception of the one for the Konus TOH, are used to recover material for recycle into the process or the fuel system. Baghouse #1 is used to collect material from the Diamond roll screener, collected fines from Baghouse #5 and fines from the edgetrim and crosscut saws and transfer this material to the hammer mill for later use a dryer fuel. Baghouse #2 collects material from the mat forming line, including the flake resin application operation, the flying cutoff saw, and the flake reclaim system and this material is conveyed back to the forming process. Baghouse 5 collects material from two dry flake day bins, conveyors and a screener. As noted above, the material from Baghouse 5 is then transferred to Baghouse 1.

Baghouses 8 and 9 serve the fines recovery system for the Newberry facility, which is part of the fabrication operations. In the fabrication processes, the siding board is trimmed to size, cut into trim boards, sanded, etc. A portion of each board is converted into sawdust, sander dust, etc. in the fabrication process. This material is collected in the fines recovery system. The vast majority of the collected material from these baghouses is recycled by blending it with raw fiber to make the mat ahead of the board press. The recycled materials have tremendous value to LP and would represent an enormous waste stream if it were not recycled back into the process.

The baghouses described above should not be subject to CAM since they are considered to be inherent process equipment. As defined in 40 CFR 64.1:

> *Inherent process equipment* means equipment that is necessary for the proper or safe functioning of the process, or material recovery equipment that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulations. Equipment that must be operated at an efficiency higher than that achieved during normal process operations in order to comply with the applicable emission limitation or standard is not inherent process equipment. For the purposes of this part, inherent process equipment is not considered a control device and thus these devices are exempt from CAM plan requirements.

The preamble to the final CAM rule provided the following three criteria to distinguish inherent process equipment from control devices:

1. *Is the primary purpose of the equipment as a control device?* The primary purpose of the baghouse is to recover and transport valuable wood fiber to recycle back into the process or to be used as dryer fuel. A portion of each board is typically made up of recycled material from the fabrication systems. The other purposes of the baghouses are housekeeping and safety of operations. Saws, sanders, and other fabrication equipment cannot be operated without the collection systems as the equipment will clog up with wood dust, fiber, etc.

2. *Where the equipment is recovering product, how do the cost savings for the product recovery compare to the cost of the equipment?* LP has estimated that the mill recycles approximately 13,000 tons of material from the fines recovery system back into the process, to be incorporated into the board. An additional 15,670 tons of fines was recovered in 2015 to be used in the fuel system. The value of this raw material over the life of the mill is much higher than the cost of the baghouses. Additionally, the value of housekeeping and operator health and safety due to the dust collection systems is not monetized and is critical to mill operations.

3. *Would the equipment be installed if no air quality regulations are in place?* The primary purpose of the baghouses is for recovery/reuse of the wood for use in the board. Additionally, the use of the collection systems for good housekeeping and safety would be necessary even if no air quality regulations are in place. Therefore, the equipment would be installed even if there were no air quality regulations.

Summary

Based on the above discussion, the Dryer System and Konus TOH are subject to CAM requirements for each of their applicable regulated air pollutants. Baghouses 1, 2, 5, 8 and 9 are inherent process equipment thereby making them exempt from CAM requirements. This is consistent with CAM applicability determinations for similar baghouses at other LP locations. The Coating operation and Baghouses 3 and 6 did not meet all of the applicability criteria and are not subject to CAM requirements.

Attachment A
Emission Calculations

Malfunction Abatement Plan
And
Control Equipment Monitoring Plan

Louisiana-Pacific Corporation
Newberry, Michigan

May 2022

Table of Contents

SECTION 1
Introduction
Malfunction Prevention and Abatement Plan
Control Equipment Monitoring Plan

This plan has been written to comply with Rule 201(1)(a) for permit number MI-ROP-N0780-2018a, which became effective on February 14, 2018, and revised on March 19, 2020. It is to be used as a method to detect and correct malfunctions or equipment failures, which may cause any applicable emission limitation to be violated.

To provide employees with more specific instructions on how to complete the duties they are responsible for, applicable Standard Operating Procedures (SOPs) are a part of the Louisiana-Pacific Corporation's Environmental Management System (EMS) and used for employee reference.

The items or conditions which are to be inspected, and the frequency of inspections are identified on various reports attached as appendices to this plan. A summary of these items and conditions is presented in the "Control Equipment Inspection and Maintenance Summary", located on pages 30-32 of this plan.

Operating parameters which are monitored and normal ranges are identified within the various reports attached as appendices to this plan. A summary of these items and conditions is presented in a table format entitled "Emission Control Equipment Operating Parameter Limits" located on page 29 of this plan.

Operation and Maintenance Manuals for equipment are referenced when needed. At times, variation from the manuals will occur. Both manufactures of our equipment reminded us that equipment operation and maintenance is site specific.

EMERGENCY PHONE NUMBERS

Louisiana-Pacific

Thomas Davis	Plant Manager	(906) 293-4513
Nicholas Waddell	EHS Manager	(906) 293-4523
James Depew	Production Superintendent	(906) 293-4526
Elmer Albright	Maintenance Superintendent	(906) 293-4515
General Plant Number		(906) 293-4500

TANN Corporation (RTO and RCO services)

Office	8a.m. - 5 p.m. Central Time	(920) 766-3600

LDX Solutions (WESP services)

Main Office	(678) 213-0295

SECTION 2
MAP and CEM plans

2.1 Konus thermal oil heater

EUKONUS system consists of two 19.9 million BTU per hour heaters with two 1.31 million BTU per hour economizers. The system utilizes a cyclone dust collector and is exhausted into Baghouse #4 to control particulate emissions. Details of the MAP and CEM plans for these emission units are included in Sections 3.

2.2 Flake Drying system

EUDRYERRC system consists of a triple pass dryer drum utilizing a Wet electrostatic precipitator (WESP) unit and a regenerative thermal oxidizer (RTO) to control emissions. Details of the MAP and CEM plans for these emission units are included in Sections 4.

2.3 Board Pressing system

EUPRESS system consists of a board press and fugitive emissions from mat forming line. The system utilizes a regenerative catalytic oxidizer to control emissions. Details of the MAP and CEM plans for these emission units are included in Section 5.

2.4 Paint Booth system

EUCOATING system consists of a paint booth with dry exhaust filters and a natural gas-fired drying oven for painting grooved areas on siding, and an edge seal paint booth with dry exhaust filters. Details of the MAP and CEM plans for these emission units are included in Section 6.

2.5 Baghouses for Particulate Control

Baghouses 1, 2, 3, 4, 5, 6, 8, and 9 control particulate emissions from mill processes. Details of the MAP and CEM plans for these emission units are included in Sections 7.1-7.8.

Section 3: EUKONUS
Thermal Oil Heater

Emission Limits

PM/PM-10: 0.081 lb per 1000 lbs of exhaust gases to 50% excess air, 4.3 pph (R336.1205(3))

NOx: 0.4 lb/MMBTU heat input, 15.5 pph (R336.1205(3))

CO: 0.87 lb/MMBTU heat input, 26.0 pph, 93.4 tpy (R336.1205(3))

VOC: 0.77 pph(R336.1205(3))

Material Limits

Wood Fuel: 24,000 tons/year

Control Technology

Reference Baghouses 3 and 4 for air treatment control in Section 7.3 and 7.4 of this plan.

Responsibilities

Konus Operators- Routine inspection, maintenance, and recording data**.**

Shift Supervisor- Manage inspection, repair, and maintenance activities performed by shift workers

EHS Technician- Routine maintenance and inspections and review of work performed by other parties.

Maintenance Department- Repairing and maintaining equipment. Documentation of specific maintenance activities through electronic work order systems

EHS Manager- Implementation of this plan, and oversee inspection, repair, and maintenance activities to environmentally permitted equipment.

Maximum Intervals

Inspection- The equipment can be inspected externally each day during operation and internally inspected as needed during scheduled down days.

Operating Parameters- Each shift the operating parameters shall be observed and

recorded as indicated in the Konus operating log sheet attached in Appendix B.

Maintenance- Maintenance shall be based on the manufacturer's suggested maintenance schedule. However, maintenance schedule and operation are subject to change based on equipment operation and function.

Spare Parts

A recommended spare parts list is included in Appendix A.

Corrective Procedures*

If a malfunction or failure occurs which may lead to the exceedance of applicable emission limitations, the operator that discovers the problem shall immediately inform the Shift Supervisor, and have the Konus system shutdown.

*This section refers to major failures, such as loss of power or loss of emission control systems.

I. Normal shutdown or start up

Normal shutdown or start up of the TOH system is not expected to result in excess emissions being generated. Shutdown of the thermal oil heater system follows a standard process that shuts down the thermal oil heater system fuel prior to taking emission control equipment off line. The Baghouse #4 bypass is opened and the combustion air fan is shut off or lowered to standby level once the fuel source is shut off. The emissions are uncontrolled after shut down.

The Konus systems (Konus 1 and Konus 2) are not fueled simultaneously with wood fuel. Except for transition periods not longer than six hours Konus 1 and Konus 2 will not operate simultaneously on wood fuel.

Procedures for operation of the Baghouse #4 require that a flue gas temperature of 550°F be maintained prior to routing exhaust to Baghouse #4. During shutdown of Konus or upset condition require the flue gas to reach 500°F prior to bypass of Baghouse #4 when shutting down.

The Konus will not be operated, when fired with wood, unless the cyclone and Baghouse #4 are operated properly

Section 4: EUDRYER
4.1 Wet Electrostatic Precipitator (WESP or E-Tube)

Emission Limits (After WESP and RTO treatment)

PM/PM-10: 0.020gr/dscf, 7.9 pph (R336.1205(3))

SO2: 0.4 pph (R336.1205(3))

NOx: 14.8 pph (R336.1205(3))

CO: 23.98 pph, 78.34 tpy (R336.1205(3))

VOC: 5.12 pph, 14.07 tpy (R336.1205(3)) (R 336.1702(c))

Acetaldehyde: 1.17 pph (R336.1225)

Acrolein: 0.195 pph (R336.1225)

Formaldehyde: 1.11 pph (R336.1225)

Manganese: 0.03 pph (R336.1225)

Material Limits

Coniferous Wood: 30% by volume

Responsibilities

Press Utility and Dryer/Press Operators- Routine inspection, recording data, and keeping chart recorders functional**.**

Shift Supervisor- Manage inspection, repair, and maintenance activities performed by shift workers

EHS Technician- Routine maintenance and inspections, inventory control for chemicals, review of work performed by other parties.

Maintenance Department- Repairing and maintaining equipment. Documentation of specific maintenance activities through electronic work order systems

EHS Manager- Implementation of this plan, and oversee inspection, repair, and maintenance activities to environmentally permitted equipment.

Maximum Intervals

Inspection- The equipment can be inspected externally each day during operation and internally inspected as needed during scheduled down days.

Operating Parameters- Operating parameters are continuously recorded. If a deviation occurs, interlocks will shut down production until the deviation is addressed.

Maintenance- Maintenance shall be based on the manufacturer's suggested maintenance schedule. However, maintenance schedule and operation are subject to change based on equipment operation and function.

Spare Parts

A recommended spare parts list is included in Appendix A.

Corrective Procedures

This section refers to major failures, such as loss of power to WESP, loss of water, or if the WESP is bypassed during operations.

The dryer shall not be operated unless the cyclone, WESP, and RTO are installed, maintained and operated in a satisfactory manner. The hourly average temperature of the quench section of the WESP can be no more than 180 degrees F. The hourly precipitator grid voltage (not caused by automated grid flushing) cannot be less than 30 kV. No wash liquor from the WESP shall be introduced into the RTO.

If a malfunction or failure occurs which may lead to the exceedance of applicable emission limitations, the operator that discovers the problem shall immediately inform the Shift Supervisor, and have the dryer and WESP shutdown, if necessary. The system is interlocked to prevent operation in the event of an excursion; however, manual shut down may be necessary.

EUDRYER
4.2 Regenerative Thermal Oxidizer (RTO)

Emission Limits (After WESP and RTO treatment)

PM/PM-10: 0.020gr/dscf, 7.9 pph (R336.1205(3))

SO2: 0.4 pph (R336.1205(3))

NOx: 14.8 pph (R336.1205(3))

CO: 23.98 pph, 78.34 tpy (R336.1205(3))

VOC: 5.12 pph, 14.07 tpy (R336.1205(3)) (R 336.1702(c))

Acetaldehyde: 1.17 pph (R336.1225)

Acrolein: 0.195 pph (R336.1225)

Formaldehyde: 1.11 pph (R336.1225)

Manganese: 0.03 pph (R336.1225)

Opacity: A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27 percent opacity (R336.1301(1))

Material Limits

Coniferous Wood: 30% by volume

Responsibilities

Press Utility and Dryer/Press Operators- Routine inspection, recording data, and keeping chart recorders functional**.**

Shift Supervisor- Manage inspection, repair, and maintenance activities performed by shift workers

EHS Technician- Routine maintenance and inspections, inventory control for chemicals, review of work performed by other parties.

Maintenance Department- Repairing and maintaining equipment.

EHS Manager- Implementation of this plan, and oversee inspection, repair, and maintenance activities.

Maximum Intervals

Inspection- The equipment shall be externally inspected once per shift during operation and internally inspected during scheduled down days.

Operating Parameters- Operating parameters are continuously recorded. If a deviation occurs, interlocks will shut down production until the deviation is addressed.

Maintenance- Maintenance shall be based on the manufacturer's suggested maintenance schedule. However, maintenance schedule and operation are subject to change based on equipment operation and function.

Spare Parts

A recommended spare parts list has been included in Appendix A.

Corrective Procedures*

This section refers to major failures, such as loss of power to RTO, loss of heat, or if the RTO is bypassed during operations.

If a malfunction or failure occurs which may lead to the exceedance of applicable emission limitations, the operator that discovers the problem shall immediately inform the Shift Supervisor, and have the dryer system shutdown.

The dryer shall not be operated unless the cyclone, WESP, and RTO are installed, maintained and operated in a satisfactory manner. The RTO is required to maintain an hourly combustion chamber temperature of 1525°F. No wash liquor from the WESP shall be introduced into the RTO. Also, a record of the date, time, and length of each RTO bakeout is to be kept.

SECTION 5: EUPRESS
Regenerative Catalytic Oxidizer (RCO)

Emission Limits

PM/PM-10/PM-2.5: 11.16 pph, 40.9 tpy (R336.1205(3))

NOx: 2.77 pph (R336.1205(3))

CO: 3.39 pph, 13.3 tpy (R336.1205(3))

VOC: 8.26 pph, 30.3 tpy (R336.1205(3)) (R 336.1702(c))

Formaldehyde: 4.1 pph (R336.1225)

Acetaldehyde: 1.17 pph, 4417 ppy (R336.1225) (R336.1203(3)

Methylene Diphenyl Isocyanate: 0..53 pph (R336.1225)

Phenol: 2.0 pph (R336.1225)

Material Limits

None

Responsibilities

Press Utility and Dryer/Press Operators- Routine inspection, recording data, and keeping chart recorders functional**.**

Shift Supervisor- Manage inspection, repair, and maintenance activities performed by shift workers

EHS Technician- Routine maintenance and inspections, inventory control for chemicals, review of work performed by other parties.

Maintenance Department- Repairing and maintaining equipment.

EHS Manager- Implementation of this plan, and oversee inspection, repair, and maintenance activities.

Maximum Intervals

Inspection- The equipment shall be externally inspected once per shift during operation and internally inspected during scheduled down days.

Operating Parameters- Operating parameters are continuously recorded. If a deviation occurs, interlocks will shut down production until the deviation is addressed.

Maintenance- Maintenance shall be based on the manufacturer's suggested maintenance schedule. However, maintenance schedule and operation are subject to change based on equipment operation and function.

Spare Parts

A recommended spare parts list has been included in Appendix A.

Corrective Procedures*

This section refers to major failures, such as loss of power to RCO, loss of heat, or if the RCO is bypassed during operations.

If a malfunction or failure occurs which may lead to the exceedance of applicable emission limitations, the operator that discovers the problem shall immediately inform the Shift Supervisor, and have the press system shutdown.

The press shall not be operated unless the RCO is installed, maintained and operated in a satisfactory manner. The RCO is required to maintain an hourly combustion chamber temperature of 750°F. The combustion chamber must have a continuous monitoring device installed, calibrated, maintained, and operated in a satisfactory manner.

SECTION 6:
EUCOATING

Emission Limits

Visible Emissions: No visible emissions except due to uncombined water vapor (R336.1301(1)(c))

VOCs: 1.1 pph (R336.1702)

Responsibilities

Finish End Operators- Tracking paint use**,** Routine inspection, Filter changes

Shift Supervisor- Manage inspection, repair, and maintenance activities performed by shift workers

EHS Technician- Routine maintenance and inspections, inventory control for chemicals, review of work performed by other parties.

Maintenance Department- Repairing and maintaining equipment.

EHS Manager- Implementation of this plan, and oversee inspection, repair, and maintenance activities.

Maximum Intervals

Inspection- The equipment shall be externally inspected once per shift during operation and internally inspected during scheduled down days.

Operating Parameters- Maintain record of VOC content of paint material. Maintain monthly record of usage rate.

Maintenance- Maintenance shall be based on the manufacturer's suggested maintenance schedule. However, maintenance schedule and operation are subject to change based on equipment operation and function.

Corrective Procedures

If a malfunction or failure occurs which may lead to the exceedance of applicable emission limitations, the operator that discovers the problem shall immediately inform the Shift Supervisor, and have the dryer system shutdown.

The coating line shall not be operated unless all exhaust filters are in place and operating properly.

SECTION 7:Baghouses
Section 7.1
EUBaghouse#1

Emission Unit

Description: Process group exhausts controlled by the Baghouse #1 which can include, the Diamond roll screener, Baghouse #1 outfeed, and collected fines from Baghouse #5.

Emission Limits

Visible Emissions: 10% opacity, except due to uncombined water vapor (R336.1301(1)(c)) 6 minute average.

PM/PM-10: 0.032 lb per 1000lbs of exhaust gases on a dry gas basis (R336.1205(3)), 5.8 pph (R336.1205(3))

Responsibilities

Press Utility and Dryer/Press Operators - Daily inspection of Baghouse stack for visible emissions while plant is operating. Routine inspection and maintenance, and recording data**.**

Shift Supervisor- Manage inspection, repair, and maintenance activities performed by shift workers. Conduct method 22 observation on a daily basis when plant is operating.

EHS Technician- Routine maintenance, inspections, and review of work performed by other parties.

Maintenance Department- Repairing and maintaining equipment and maintain records of corrective actions.

EHS Manager- Implementation of this plan, and oversee inspection, repair, and maintenance activities.

Maximum Intervals

Inspection- The equipment shall be externally inspected once per shift during operation and internally inspected as defined by maintenance schedule.

Operating Parameters- Each shift the operating parameters shall be observed and recorded as indicated in the Baghouse Preventative Maintenance Report. A copy of the Baghouse Preventative Maintenance Report is attached as Appendix E.

Maintenance- Maintenance shall be performed as needed or based on maintenance schedule, kept in the electronic work order system.

Spare Parts

A recommended spare parts list is included in Appendix A.

Corrective Procedures

If a malfunction or failure occurs which may lead to the exceedance of applicable emission limitations, the operator that discovers the problem shall immediately inform the Shift Supervisor, and have the system shutdown.

The process group associated with this Baghouse shall not be operated unless the Baghouse is installed, maintained and operated in a satisfactory manner.

Section 7.2
EUBaghouse#2

Emission Unit

Description: Baghouse treatment on the process group exhausts from the mat forming line, including the flake resin application operation, the flying cutoff saw, and the flake reclaim system. The flake reclaim system includes the flake formers, flake conveyors and mat side suction.

Emission Limits

Visible Emissions: 10% opacity, except due to uncombined water vapor (R336.1301(1)(c)) 6 minute average.

PM/PM-10: 0.031 lb per 1000lbs of exhaust gases on a dry gas basis (R336.1205(3)), 3.8 pph (R336.1205(3))

Responsibilities

Press Utility and Dryer/Press Operators - Daily inspection of Baghouse stack for visible emissions while plant is operating. Routine inspection and maintenance, and recording data**.**

Shift Supervisor- Manage inspection, repair, and maintenance activities performed by shift workers. Conduct method 22 observation on a daily basis when plant is operating.

EHS Technician- Routine maintenance and inspections and review of work performed by other parties.

Maintenance Department- Repairing and maintaining equipment and maintain records of corrective actions.

EHS Manager- Implementation of this plan, and oversee inspection, repair, and maintenance activities.

Maximum Intervals

Inspection- The equipment shall be externally inspected once per shift during operation and internally inspected as defined by maintenance schedule.

Operating Parameters- Each shift the operating parameters shall be observed and recorded as indicated in the Baghouse Preventative Maintenance Report. A copy of the Baghouse Preventative Maintenance Report is attached as Appendix E.

Maintenance- Maintenance shall be performed as needed or based on maintenance

schedule, kept in the electronic work order system.

Spare Parts

A recommended spare parts list is included in Appendix A.

Corrective Procedures

If a malfunction or failure occurs which may lead to the exceedance of applicable emission limitations, the operator that discovers the problem shall immediately inform the Shift Supervisor, and have the system shutdown.

The process group associated with this Baghouse shall not be operated unless the Baghouse is installed, maintained and operated in a satisfactory manner.

Section 7.3
EUBaghouse#3

Emission Unit

Description: Baghouse treatment on the process group consisting of thermal oil heater fuel metering bin and waferizer green fines blower.

Emission Limits

Visible Emissions: 10% opacity, except due to uncombined water vapor (R336.1301(1)(c)) 6 minute average.

PM/PM-10: 0.021 lb per 1000lbs of exhaust gases on a dry gas basis (R336.1205(3)), 1.9 pph (R336.1205(3))

Responsibilities

Konus Operators- Daily inspection of Baghouse stack for visible emissions while plant is operating. Routine inspection and maintenance, and recording data**.**

Shift Supervisor- Manage inspection, repair, and maintenance activities performed by shift workers. Conduct method 22 observation on a daily basis when plant is operating.

EHS Technician- Routine maintenance and inspections and review of work performed by other parties.

Maintenance Department- Repairing and maintaining equipment and maintain records of corrective actions.

EHS Manager- Implementation of this plan, and oversee inspection, repair, and maintenance activities.

Maximum Intervals

Inspection- The equipment shall be externally inspected once per shift during operation and internally inspected as defined by maintenance schedule.

Operating Parameters- Each shift the operating parameters shall be observed and recorded as indicated in the Baghouse Preventative Maintenance Report. A copy of the Baghouse Preventative Maintenance Report is attached as Appendix B.

Maintenance- Maintenance shall be performed as needed or based on maintenance schedule, kept in the electronic work order system.

Spare Parts

A recommended spare parts list kept in the Maintenance Supervisor's office.

Corrective Procedure

If a malfunction or failure occurs which may lead to the exceedance of applicable emission limitations, the operator that discovers the problem shall immediately inform the Shift Supervisor, and have the system shutdown.

Baghouse #3 controls emissions generated from the thermal oil heater fuel metering bin, therefore Baghouse #3 operates when the TOH fuel metering bin is operating.

The process group associated with this Baghouse shall not be operated unless the Baghouse is installed, maintained and operated in a satisfactory manner.

Section 7.4
EUBaghouse#4 (Konus)

Emission Unit

Description: Individual cyclone dust collector for each TOH heater exhausted into Baghouse #4.

Emission Limits

See Section 3: EUKONUS

Responsibilities

Konus Operators- Daily inspection of Baghouse stack for visible emissions while plant is operating. Routine inspection and maintenance, and recording data**.**

Shift Supervisor- Manage inspection, repair, and maintenance activities performed by shift workers

EHS Technician- Routine maintenance and inspections and review of work performed by other parties.

Maintenance Department- Repairing and maintaining equipment and maintain records of corrective actions.

EHS Manager- Implementation of this plan, and oversee inspection, repair, and maintenance activities.

Maximum Intervals

Inspection- The equipment shall be externally inspected once per shift during operation and internally inspected as defined by maintenance schedule.

Operating Parameters- Each shift the operating parameters shall be observed and recorded as indicated in the Baghouse Preventative Maintenance Report. A copy of the Baghouse Preventative Maintenance Report is attached as Appendix B.

Maintenance- Maintenance shall be performed as needed or based on maintenance schedule, kept in the electronic work order system.

Spare Parts

A recommended spare parts list is included in Appendix A.

Corrective Procedures

If a malfunction or failure occurs which may lead to the exceedance of applicable emission limitations, the operator that discovers the problem shall immediately inform the Shift Supervisor, and have the system shutdown.

The process group associated with this Baghouse shall not be operated unless the Baghouse is installed, maintained and operated in a satisfactory manner.

Section 7.5
EUBaghouse#5

Emission Unit

Description: Baghouse treatment on the process group consisting of exhausts from the two dry flake day bins, conveyors and screener.

Emission Limits

Visible Emissions: 10% opacity, except due to uncombined water vapor (R336.1301(1)(c)) 6 minute average.

PM/PM-10: 0.01 lb per 1000lbs of exhaust gases on a dry gas basis (R336.1205(3)), 0.9 pph (R336.1205(3))

Responsibilities

Press Utility and Dryer/Press Operators - Daily inspection of Baghouse stack for visible emissions while plant is operating. Routine inspection and maintenance, and recording data**.**

Shift Supervisor- Manage inspection, repair, and maintenance activities performed by shift workers.

EHS Technician- Routine maintenance and inspections and review of work performed by other parties.

Maintenance Department- Repairing and maintaining equipment and maintain records of corrective actions.

EHS Manager- Implementation of this plan, and oversee inspection, repair, and maintenance activities.

Maximum Intervals

Inspection- The equipment shall be externally inspected once per shift during operation and internally inspected as defined by maintenance schedule.

Operating Parameters- Each shift the operating parameters shall be observed and recorded as indicated in the Baghouse Preventative Maintenance Report. A copy of the Baghouse Preventative Maintenance Report is attached as Appendix E.

Maintenance- Maintenance shall be performed as needed or based on maintenance schedule, kept in the electronic work order system.

Spare Parts

A recommended spare parts list is included in Appendix A.

Corrective Procedures

If a malfunction or failure occurs which may lead to the exceedance of applicable emission limitations, the operator that discovers the problem shall immediately inform the Shift Supervisor, and have the system shutdown.

The process group associated with this Baghouse shall not be operated unless the Baghouse is installed, maintained and operated in a satisfactory manner.

Section 7.6
EUBaghouse#6

Emission Unit

Description: Baghouse treatment on the process consisting of exhausts from the dryer burner fuel bin. Wood fines discharged from Baghouse #1 pass thru a hammer mill then are blown to dryer burner fuel storage bin.

Emission Limits

Visible Emissions: 10% opacity, except due to uncombined water vapor (R336.1301(1)(c)) 6 minute average.

PM/PM-10: 0.01 lb per 1000lbs of exhaust gases on a dry gas basis (R336.1205(3)), 0.14 pph (R336.1205(3))

Responsibilities

Press Utility and Dryer/Press Operators - Daily inspection of Baghouse stack for visible emissions while plant is operating. Routine inspection and maintenance, and recording data**.**

Shift Supervisor- Manage inspection, repair, and maintenance activities performed by shift workers.

EHS Technician- Routine maintenance and inspections and review of work performed by other parties.

Maintenance Department- Repairing and maintaining equipment and maintain records of corrective actions.

EHS Manager- Implementation of this plan, and oversee inspection, repair, and maintenance activities.

Maximum Intervals

Inspection- The equipment shall be externally inspected once per shift during operation and internally inspected as defined by maintenance schedule.

Operating Parameters- Each shift the operating parameters shall be observed and recorded as indicated in the Baghouse Preventative Maintenance Report. A copy of the Baghouse Preventative Maintenance Report is attached as Appendix E.

Maintenance- Maintenance shall be performed as needed or based on maintenance schedule, kept in the electronic work order system.

Spare Parts

A recommended spare parts list is included in Appendix A.

Corrective Procedures

If a malfunction or failure occurs which may lead to the exceedance of applicable emission limitations, the operator that discovers the problem shall immediately inform the Shift Supervisor, and have the system shutdown.

The process group associated with this Baghouse shall not be operated unless the Baghouse is installed, maintained and operated in a satisfactory manner.

Section 7.7
EUBaghouse#8

Emission Unit

Description: Baghouse treatment on the process group consisting of exhausts from the groover booth and hammermill, which includes the 1st and 2nd pass trim saws and 1st pass clean-up conveyor.

Emission Limits

Visible Emissions: 10% opacity, except due to uncombined water vapor (R336.1301(1)(c)) 6 minute average.

PM/PM-10: 0.015 lb per 1000lbs of exhaust gases on a dry gas basis (R336.1205(3)), 1.37 pph (R336.1205(3))

Responsibilities

Press Utility and Dryer/Press Operators - Daily inspection of Baghouse stack for visible emissions while plant is operating. Routine inspection and maintenance, and recording data**.**

Shift Supervisor- Manage inspection, repair, and maintenance activities performed by shift workers.

EHS Technician- Routine maintenance and inspections and review of work performed by other parties.

Maintenance Department- Repairing and maintaining equipment and maintain records of corrective actions.

EHS Manager- Implementation of this plan, and oversee inspection, repair, and maintenance activities.

Maximum Intervals

Inspection- The equipment shall be externally inspected once per shift during operation and internally inspected internally inspected as defined by maintenance schedule.

Operating Parameters- Each shift the operating parameters shall be observed and recorded as indicated in the Baghouse Preventative Maintenance Report. A copy of the Baghouse Preventative Maintenance Report is attached as Appendix E.

Maintenance- Maintenance shall be performed as needed or based on maintenance schedule, kept in the electronic work order system.

Spare Parts

A recommended spare parts list is included in Appendix A.

Corrective Procedures

If a malfunction or failure occurs which may lead to the exceedance of applicable emission limitations, the operator that discovers the problem shall immediately inform the Shift Supervisor, and have the system shutdown.

The process group associated with this Baghouse shall not be operated unless the Baghouse is installed, maintained and operated in a satisfactory manner.

Section 7.8
EUBaghouse#9

Emission Unit

Description: Baghouse treatment on the process group consisting of exhausts from the fines recovery system, which includes a metering bin.

Emission Limits

Visible Emissions: 10% opacity, except due to uncombined water vapor (R336.1301(1)(c)) 6 minute average.

PM/PM-10: 0.025 lb per 1000lbs of exhaust gases on a dry gas basis (R336.1205(3)), 1.37 pph (R336.1205(3))

Responsibilities

Press Utility and Dryer/Press Operators - Daily inspection of Baghouse stack for visible emissions while plant is operating. Routine inspection and maintenance, and recording data**.**

Shift Supervisor- Manage inspection, repair, and maintenance activities performed by shift workers.

EHS Technician- Routine maintenance and inspections and review of work performed by other parties.

Maintenance Department- Repairing and maintaining equipment and maintain records of corrective actions.

EHS Manager- Implementation of this plan, and oversee inspection, repair, and maintenance activities.

Maximum Intervals

Inspection- The equipment shall be externally inspected once per shift during operation and internally inspected internally inspected as defined by maintenance schedule.

Operating Parameters- Each shift the operating parameters shall be observed and recorded as indicated in the Baghouse Preventative Maintenance Report. A copy of the Baghouse Preventative Maintenance Report is attached as Appendix E.

Maintenance- Maintenance shall be performed as needed or based on maintenance schedule, kept in the electronic work order system.

Spare Parts

A recommended spare parts list is included in Appendix A.

Corrective Procedures

If a malfunction or failure occurs which may lead to the exceedance of applicable emission limitations, the operator that discovers the problem shall immediately inform the Shift Supervisor, and have the system shutdown.

The process group associated with this Baghouse shall not be operated unless the Baghouse is installed, maintained and operated in a satisfactory manner.

SECTION 8
Emission Control Equipment Operating Parameter Limits

GeoEnergy E-TUBE (WESP)								
	Secondary Voltage Kva	Secondary Current mA	Spark Rate per min.	Inlet Temp ° F	Quench Temp ° F	Total Solids %	Blowdown Rate GPM	Differential Pressure in. W.C.
Preferred	30 to 60	100 to 400	25 to 35	210 to 280	150 to 180	2 to 10	2	0.3
Permit Limits	>30	-	-	-	<180	-	-	-

TANN RTO							
	Burner Temp. ° F	Chamber Bed Temp ° F	Combust. Chamber ° F	Inlet Temp. ° F	Exhaust Temp ° F	Differential Pressure in W.C.	Bearing Temp. ° F
Preferred	1520-1560	350-500	1540	150-170	230-280	14-30	<150
Permit Limits	-	-	>1525	-	-	-	-

TANN RCO							
	Burner Temp. ° F	Chamber Bed Temp ° F	Combust. Chamber ° F	Inlet Temp. ° F	Exhaust Temp ° F	Differential Pressure in W.C.	Bearing Temp. ° F
Preferred	750-800	350-500	750	110-140	150-175	1-10	<150
Permit Limits	-	-	>750	-	-	-	-

BAGHOUSES Pressure Drop in inches W.C.								
Baghouse I.D. #	1	2	3	4	5	6	8	9
Baghouse Name	Line Cleanup	Flying Cutoff Saw	Bark	Konus	Screener	Dryer Fuel	Sawline	Fines
Normal Range	1.5 - 5.0	1.0 – 5.0	0.5 – 3.0	1.0 – 4.0	3.0-4.0	0.5-2.0	1.0-4.0	0.5-4.0

Note: These numbers are hourly averages, not instantaneous readings. The numbers noted here are based on the recorded operation of this equipment on-site. Numerous variables cause parameters to vary from site to site, as suggested by the manufacturers.

SECTION 9
Control Equipment Inspection and Maintenance Summary
E-tube

Item	Shift	MWF	Bi-weekly/Maintenance Day	Monthly	As Needed
E-tube					
Solids Test	X				
Clean Strainer	X				
Blow Out Purge Air Filter					X
Record all Operating Parameters as per E-tube Operating Report	X				
Check Nozzle Temperatures					X
Check all Motors					X
Check Insulators for Arcing					X
Check Tanks & Piping for Leaks		X			
Check Fire Protection				X	
Inspect / Clean Insulators			X		
Inspect / Clean Power Grid			X		
Inspect / Clean Flush Nozzles			X		
Inspect / Clean Tubes & Probes			X		
Inspect / Clean Sump Floor			X		
Inspect / Clean Quench Chamber			X		
Inspect / Clean Quench Nozzles			X		
Inspect / Clean Cyclone			X		
Inspect / Clean Purge Air Filters			X		
Inspect High Volt. Electrode Alignment			X		
Inspect Insulators for Cracks			X		
Inspect High Volt. Electrode Alignment			X		
Inspect for Corrosion			X		
Inspect for Loose Fasteners and Welds			X		
Replace Lithium Battery in T/R Controller					X
Check Transformer Oil					X

Control Equipment Inspection and Maintenance Summary
RTO & RCO

Item	2 Hr	Mnthly	6 mos.	Annual	As Need
RTO & RCO					
Record Bearing Temperatures	X				
Lubricate fan bearings		X			
Drain pressure-sensing line drip legs		X			
Inspect piping for leaks		X			
Inspect strainers		X			
Inspect UV scanner/clean lens			X		
Inspect poppet solenoid spools			X		
Test interlocks				X	
Check ignition spark plug				X	
Check valve motors				X	
Test flame safeguard				X	
Inspect poppet valve blade				X	
Inspect poppet valve seat assembly				X	
Verify proper blade-to-seat connection				X	
Test manual gas valve operation				X	
Check air/gas ratio				X	
Inspect fan coupling				X	
Test pressure switches				X	
Visually check ignition cable and connector				X	
Inspect burner components				X	
Clean orifice plate				X	
Inspect motor				X	
Inspect fan shaft				X	
Inspect fan support structure				X	
Inspect fan wheel				X	
Clean Ductwork					S/D
Clean Dispersion Tube					S/D
Check Dispersion Tube P/V taps (open)					S/D
Inspect Refractory					S/D
Check Burner Throats					S/D
Touch-up Paint					S/D
Calibrate Instruments					S/D
Bakeout					X

S/D = Shut Down

Control Equipment Inspection and Maintenance Summary
Baghouses

Item	Shift	Daily	Wkly	Mnthly	6 mos.	Annual	As Need
Baghouses							
Record Magnehelic Reading	X						
Check Pulse Sequence	X						
Check Air Pump Pressure	X						
Check Air Pump Motor	X						
Check Air Pump Drive	X						
Check Air Lock Motor	X						
Check Air Lock Drive	X						
Check All Doors For Proper Seal	X						
Inspect #1 B.H. Air Filter, replace if necessary	X						
Check Sweep Arm Motor				X			
Check Sweep Arm Drive				X			
Check Air Lock Seals				X			
Check / Inspect Bags							S/D
Visually Check Air Pump Belt Tension				X			
Check Pump Oil Level				X			
Check Gearbox Oil Level				X			
Visually Check Chain Slack Tightener				X			
Check Nozzle Clearance							S/D

S/D = Shut Down

Appendix A
Environmental Controls Spare Parts List

#1 Baghouse System Spare Parts List

Mfg: **Donaldson, Inc. Day Div.**
Model: **376-RFH-10**
Serial: **RFH 1815**
Job #: **105152**

Induced Draft (ID) Fan Assembly (M5410)

A.	(1)	Electric Motor	460/3/60, 100hp, 1800 rpm, 405T Frame
B.	(1)	Drive Sheave	3-5V-13.2-E
C.	(1)	Drive Sheave Taper Bushing	E 2-7/8"
D.	(3)	Drive Belts	5VX1800
E.	(1)	Driven Sheave	3-5V-15.0-R1
F.	(1)	Driven Sheave Taper Bushing	R1 3-7/16"
G.	(1)	Fan Shaft	Made at the plant as needed
H.	(2)	Fan Shaft Bearings	Dodge #041868

Reverse Blower Assembly (M5407)

A.	(1)	Electric Motor	460/3/60, 5hp, 1725rpm, 184T frame
B.	(1)	Drive Sheave	2 5V 6.7 SK
C.	(1)	Drive Sheave Taper Bushing	SK 15/16"
D.	(2)	Drive Belts	5VX500
E.	(1)	Driven Sheave	2 5V 8.5 SK
F.	(1)	Driven Sheave Taper Bushing	SK 1 1/8"
G.	(1)	Blower Complete (MD Pneumatics)	Model #: 3206-46L3
H.	(1)	Blower Inlet Filter (NAPA)	6078

Sweep Arm Assembly (M5408)

A.	(1)	Electric Motor	Baldor (Ex. Pf.) #VM7002A
B.	(1)	Gearbox Complete	Boston #FWC721-600-B5-G
C.	(1)	Drive Sprocket	Part #: 66644
D.	(1)	Drive Chain	RC #50 x 10' long
E.	(1)	Driven Sprocket	Part #: 66645
F.	(1)	Idler Assembly	Part #: 66858
G.	(1)	Solenoid valve, Asco	Part #: 67566
H.	(1)	Timer (w/o box)	Part #: 66839
I.	(1)	Secondary Diaphragm Assembly	Part #: 66850
J.	(1)	Main Diaphragm	Part #: 75666
K.	(1)	Pilot Spring	Part #: 66647
L.	(1)	Main Spring	Part #: 66648
M.	(1)	Bronze Bearing	Part #: 31108
N.	(1)	Bearing, CB504	Part #: 31112
O.	(1)	Motion Sensor (Pepperl-Fuchs)	#NJ40-U4-W

#1 Baghouse System Spare Parts List

Filters

A.	(376)	Filter Bag (DuraLife)	Part #: P030664-016-210
B.	(10)	Filter Cage	Part #: 4MA-56417-05
C.	(10)	Filter Take-Up Rod	3/8"-16 x 10' threaded rod

Airlock (M5409)

A.	(1)	Electric Motor	460/3/60, 2hp, 1740rpm, F145TC frame
B.	(1)	Gearbox Complete	Winsmith, Serial #: #006MCTS43000EK
C.	(1)	Drive Sprocket	60 SDS 17
D.	(1)	Drive Sprocket Taper Bushing	SDS 1-3/8"
E.	(1)	Drive Chain	RC #60 x 10'
F.	(1)	Driven Sprocket	60 SK 40
G.	(1)	Driven Sprocket Taper Bushing	SK 1 11/16"
H.	(2)	Airlock Shaft Bearings	Dodge #124217
I.	(6)	Airlock Wipers	L-P DWG #5409-001
J.	(1)	Motion Sensor (Pepperl-Fuchs)	#NJ40-U4-W
K.	(1)	Plug Detector (Dynatrol)	#CL-10DJ

#2 Baghouse System Spare Parts List

Mfg: **Donaldson, Inc. Day Div.**
Model: **144-RJ-120 CLGX**
Serial:
Job #:

Induced Draft (ID) Fan Assembly (M4114)

A.	(1)	Electric Motor	460/3/60, 125hp, 1775rpm, 444T Frame
B.	(1)	Drive Sheave	5 5V 11.3 E
C.	(1)	Drive Sheave Taper Bushing	E 3 3/8"
D.	(5)	Drive Belts	5VX1500
E.	(1)	Driven Sheave	5 5V 11.3 E
F.	(1)	Driven Sheave Taper Bushing	E 2 15/16"
G.	(1)	Fan Shaft	L-P Dwg. 4114-019
H.	(2)	Fan Shaft Bearings	SKF 22217CCK/W33

Reverse Blower Assembly (M4119)

A.	(1)	Electric Motor	460/3/60, 25hp, 3520, 284T Frame
B.	(1)	Blower Complete (Cincinnati Fan)	Part #: 4BP CWTH4
B.	(1)	Blower Impeller (Donaldson)	Part #: 65501

Sweep Arm Assembly (M4418)

A.	(1)	Electric Motor	Baldor (Ex. Pf.) #VM7006A
B.	(1)	Gearbox Complete	Boston # FWC732600D56/70
C.	(1)	Drive Sprocket	Part #: 34732
D.	(1)	Drive Chain	RC #60 x 10' long
E.	(1)	Driven Sprocket	Part #: 31110
F.	(1)	Idler Assembly	Part #: 34735
G.	(1)	Extension Spring	Part #: 36400
H.	(1)	Cam Follower Roller	Part #: 31129
I.	(1)	Bronze Bearing	Part #: 31108
J.	(1)	Bearing, CB504	Part #: 31112
K.	(1)	Pivot Shaft Seat Assembly	Part #: 31113
L.	(1)	Stub Shaft	Part #: 31109
M.	(1)	Outer & Center Butterfly Assembly	Part #: 36410
N.	(1)	Inner Ring Buttery Assembly	Part #: 35936
O.	(1)	Motion Sensor (Pepperl-Fuchs)	#NJ40-U4-W

Filters

A.	(144)	Filter Tubes	Part #: P030708-016-210
B.	(10)	Filter Cage	Part #: 35773-W
C.	(10)	Tube Take-Up Rod	3/8"-16 x 12' threaded rod

#2 Baghouse System Spare Parts List

Airlock (M4417)

A.	(1)	Electric Motor	460/3/60, 7.5hp, 1750rpm, 213T Frame
B.	(1)	Drive Sheave	2 3V 6.0 SH
C.	(1)	Drive Sheave Taper Bushing	SH 1 3/8
D.	(2)	Drive Belts	3VX475
E.	(1)	Driven Sheave	2 3V 6.0 SH
F.	(1)	Driven Sheave Taper Bushing	SH 1 3/8
G.	(1)	Gearbox Complete	Rex, Mercury, 31.6:1
H.	(1)	Drive Sprocket	100 BTB 16 2517
I.	(1)	Drive Sprocket Taper Bushing	2517- 2"
J.	(1)	Drive Chain	RC #100, 1 master, 41 links
K.	(1)	Driven Sprocket	100 BTB 40 3020
L.	(1)	Driven Sprocket Taper Bushing	3020 2 15/16"
M.	(2)	Airlock Shaft Bearings	2 15/16" F4B-SC-215
N.	(6)	Airlock Wipers	Made as needed
O.	(1)	Motion Sensor (Pepperl-Fuchs)	#NJ40-U4-W
P.	(1)	Plug Detector (Dynatrol)	#CL-10DJ

#3 Baghouse System Spare Parts List

Make: **Donaldson, Inc. Day Div.**
Model: **156-RF-96**
Serial:
Job #:

Waferizer Fines Blower (M1320)

A.	(1)	Electric Motor	460/3/60, 15hp, 1760rpm, Frame
B.	(1)	Drive Sheave	3 5V 670 TB
C.	(1)	Drive Sheave Taper Bushing	TB 3020 1-5/8"
D.	(3)	Drive Belts	5VX670
E.	(1)	Driven Sheave	3 5V 750 TB
F.	(1)	Driven Sheave Taper Bushing	TB 2517 1-15/16"
G.	(1)	Fan Shaft	Make as needed
H.	(1)	Fan Shaft Bearing (sheave side)	P2B-S2-115L (#070324)
I.	(1)	Fan Shaft Bearing (fan side)	P2B-S2-115LE (#070347)
J.	(1)	Fan Impeller (Waltz-Holtz)	13 HD Paddle Wheel

Wet Bin Infeed Conveyor Cyclone Airlock (M1223)

A.	(1)	Electric Motor	460/3/60, 1/2hp, 1800rpm, 56C Frame
B.	(1)	Gearbox Complete	Boston Cat #F7328-50-85-G
C.	(1)	Drive Sprocket	80 SDS 14
D.	(1)	Drive Sprocket Taper Bushing	SDS 1-3/8"
E.	(1)	Drive Chain	RC80, 5'
F.	(1)	Driven Sprocket	80SK16
G.	(1)	Driven Sprocket Taper Bushing	SK 1-1/2"
H.	(1)	Airlock (WM Meyer)	12x12 SD 195175-1
I.	(1)	Motion Sensor (Pepperl-Fuchs)	#NJ40-U4-W
J.	(1)	Plug Detector (Dynatrol)	#CL-10DJ

Cyclone Airlock (M1227)

A.	(1)	Electric Motor	460/3/60, 3hp, 1800rpm, 182T Frame
B.	(1)	Drive Sheave	2-3V-3.6-SH
C.	(1)	Drive Sheave Taper Bushing	SH 1-1/8"
D.	(2)	Drive Belts	3VX600
E.	(1)	Driven Sheave	2-3V-6.5-SDS
F.	(1)	Driven Sheave Taper Bushing	SDS 1-7/16
G.	(1)	Gearbox Complete (Dodge)	TXT425T, S/N 244126 TN
M.	(2)	Airlock Shaft Bearings (Dodge)	F4B-GT-207
N.	(6)	Airlock Wipers	Made as needed
O.	(1)	Motion Sensor (Pepperl-Fuchs)	#NJ40-U4-W
P.	(1)	Plug Detector (Dynatrol)	#CL-10DJ

Sweep Arm Assembly (M1226)

A.	(1)	Electric Motor	Baldor (Ex. Pf.) #VM7002A

#3 Baghouse System Spare Parts List

B.	(1)	Gearbox Complete	Boston #FWC721-600-B5-G
C.	(1)	Drive Sprocket	Part #: 8PP-29073-00 (#50-20T)
D.	(1)	Drive Chain	RC #50 x 78 links
E.	(1)	Driven Sprocket	Part #: 8PP-29232-00 (#50-60T)
F.	(1)	Chain Tensioner	Part #: 8PP-29077-00
G.	(1)	Solenoid valve, Asco	Part #: 8PP-29082-01
H.	(1)	Timer (w/o box)	Part #: 8PP-29240-00
I.	(1)	Secondary Diaphragm Assembly	Part #: 3EA-29036-00
J.	(1)	Main Diaphragm	Part #: 3EA-29039-00
K.	(1)	Pilot Spring	Part #: 8PP-29045-01
L.	(1)	Main Spring	Part #: 8PP-29046-01
M.	(1)	Bronze Bearing	Part #: 8PP29060-00
N.	(1)	Bearing, pivot shaft	Part #: 8PP-29081-00

Filters

A.	(156)	Filter Tubes	16oz Polyester 6" oval x 8' long
B.	(10)	Filter Cage	Part #: 4MA-56417-03

Baghouse Airlock (M1220)

A.	(1)	Electric Motor	460/3/60, 2hp, 1750rpm, 145TC Frame
B.	(1)	Gearbox Complete	Boston F332-50-C1
C.	(1)	Drive Sprocket	60 BTB 22 2012
D.	(1)	Drive Sprocket Taper Bushing	2012 1-3/8"
E.	(1)	Drive Chain	RC #60, 10'
F.	(1)	Driven Sprocket	60 BTB 27 2012
G.	(1)	Driven Sprocket Taper Bushing	2012 1-11/16"
H.	(2)	Airlock Shaft Bearings	1-11/16" F4B-GT-111
I.	(6)	Airlock Wipers	Made as needed
J.	(1)	Motion Sensor (Pepperl-Fuchs)	#NJ40-U4-W
K.	(1)	Plug Detector (Dynatrol)	#CL-10DJ

#4 Baghouse System Spare Parts List

Make: **Donaldson, Inc. Day Div.**
Model: **484-RFT-12**
Serial:
Job #:

Konus Induced Draft (ID) Fans (M1314 & M1414)

A.	(1)	Electric Motor	460/3/60, 125hp, 1785rpm, 444T Frame
B.	(1)	Drive Sheave	5 5V 1130 E
C.	(1)	Drive Sheave Taper Bushing	E 3-3/8"
D.	(5)	Drive Belts	5VX1500
E.	(1)	Driven Sheave	5 5V 12.5 3535
F.	(1)	Driven Sheave Taper Bushing	3535 3-15/16"
G.	(1)	Fan Shaft	Make as needed
H.	(1)	Fan Shaft Bearing (sheave side)	P4BS2315R (#044704)
I.	(1)	Fan Shaft Bearing (fan side)	P4BS2315RE (#044681)

Reverse Blower Assembly (M1431)

A.	(1)	Electric Motor	460/3/60, 5hp, 1725rpm, 184T frame
B.	(1)	Drive Sheave	2 B 5.5 SDS
C.	(1)	Drive Sheave Taper Bushing	SDS 1 5/16"
D.	(2)	Drive Belts	B52
E.	(1)	Driven Sheave	2 B 9.4 SK
F.	(1)	Driven Sheave Taper Bushing	SK 1 3/8"
G.	(1)	Blower Complete (MD Pneumatics)	Model #: 3206-46L3
H.	(1)	Blower Inlet Filter (NAPA)	6078

Sweep Arm Assembly (M1429)

A.	(1)	Electric Motor	Baldor (Ex. Pf.) #VM7002A
B.	(1)	Gearbox Complete	Boston #FWC721-600-B5-G
C.	(1)	Drive Sprocket	Part #: 50 BS 24 1"
D.	(1)	Drive Chain	RC #50 x 10' long
E.	(1)	Driven Sprocket	Part #: 8PP-29072-00
F.	(1)	Idler Assembly	Part #: 8PP-29077-00
G.	(1)	Solenoid valve, Asco	Part #: 67566
H.	(1)	Timer (w/o box)	Part #: 66839
I.	(1)	Secondary Diaphragm Assembly	Part #: 67202
J.	(1)	Main Diaphragm	Part #: 67075
K.	(1)	Pilot Spring	Part #: 67071
L.	(1)	Main Spring	Part #: 67072
M.	(1)	Bronze Bearing	Part #: 67101
N.	(1)	Bearing, CB504	Part #: 31112
J.	(1)	Motion Sensor (Pepperl-Fuchs)	#NJ40-U4-W

#4 Baghouse System Spare Parts List

Filters

A.	(484)	Filter Tubes	070-061-03 145" 12CD14oz Nomex SI
B.	(10)	Filter Cage	Part #: 4MA-56417-07

Baghouse Airlock (M1420)

A.	(1)	Electric Motor	460/3/60, 3hp, 1725rpm, 56TC Frame
B.	(1)	Gearbox Complete	Boston F332-50-C1
C.	(1)	Airlock Complete	Wm. W Meyer #18x18 S/N175904-1
D.	(1)	Drive Sprocket	80 BTB 12
E.	(1)	Drive Sprocket Taper Bushing	TB 1615 1-1/2" bore
F.	(1)	Drive Chain	RC #80 5' Long
G.	(1)	Driven Sprocket	80 SF 45
H.	(1)	Driven Sprocket Taper Bushing	SF 2-1/2"
I.	(1)	Motion Sensor (Pepperl-Fuchs)	#NJ40-U4-W
J.	(1)	Plug Detector (Dynatrol)	#CL-10DJ

#5 Baghouse System Spare Parts List

Make: **Donaldson, Inc. Day Div.**
Model: **72-RJ-72 CFSX**
Serial:
Job #:

Induced Draft (ID) Fan Assembly (M4443)

A.	(1)	Electric Motor	460/3/60, 60hp, 1775rpm, 364T Frame
B.	(1)	Drive Sheave	4 5V 8.0 2517
C.	(1)	Drive Sheave Taper Bushing	2517 2 3/8"
D.	(5)	Drive Belts	5VX1320
E.	(1)	Driven Sheave	4 5V 12.5 3020
F.	(1)	Driven Sheave Taper Bushing	3020 2 15/16"
G.	(1)	Fan Shaft	Made as needed
H.	(1)	Fan Shaft Bearing (Fan side)	REX MA2215
I.	(1)	Fan Shaft Bearing (Sheave side)	REX ZA2215

Reverse Blower Assembly (M4323)

A.	(1)	Electric Motor	460/3/60, 10hp, 3500, 215T Frame
B.	(1)	Blower Complete (Cincinnati Fan)	4AP CWTH 4

Sweep Arm Assembly (M4322)

A.	(1)	Electric Motor	460/3/60, 0.5hp, 1725, 56C Frame
B.	(1)	Gearbox Complete	Boston # FWC721600B5G
C.	(1)	Drive Sprocket	Part #: 34261 (16T)
D.	(1)	Drive Chain	RC #60 x 10' long
E.	(1)	Driven Sprocket	Part #: 31110 (84T)
F.	(1)	Chain Tensioner	Part #: 34735
G.	(1)	Extension Spring	Part #: 36400
H.	(1)	Cam Follower Roller	Part #: 31129
I.	(1)	Bronze Bearing	Part #: 31108
J.	(1)	Bearing, CB504	Part #: 31112
K.	(1)	Pivot Shaft Seat Assembly	Part #: 31113
L.	(1)	Stub Shaft	Part #: 31109
M.	(1)	Outer & Center Butterfly Assembly	Part #: 36410
N.	(1)	Inner Ring Buttery Assembly	Part #: 35936
O.	(1)	Motion Sensor (Pepperl-Fuchs)	#NJ40-U4-W

Filters

A.	(144)	Filter Tubes	Part #: 070-028-02 16oz polyfelt
B.	(10)	Filter Cage	Part #: 30893
C.	(10)	Tube Take-Up Rod	3/8"-16 x 6' threaded rod

#5 Baghouse System Spare Parts List

Airlock (M4324)

A.	(1)	Electric Motor	460/3/60, 2hp, 1750rpm, 145TC Frame
B.	(1)	Gearbox Complete	Dodge Quantis S/N 6837701
C.	(1)	Drive Sprocket	60 B 14, 1-1/4" Bore
D.	(1)	Drive Chain	RC #60, 1 master, 29 links
E.	(1)	Driven Sprocket	60 BTB 24 2012
F.	(1)	Driven Sprocket Taper Bushing	2012 1-7/16"
G.	(2)	Airlock Shaft Bearings	2 7/16" F4B-SC-207 (#124217)
H.	(6)	Airlock Wipers	L-P Drawing #4324-001
I.	(1)	Motion Sensor (Pepperl-Fuchs)	#NJ40-U4-W
J.	(1)	Plug Detector (Dynatrol)	#CL-10DJ

#6 Baghouse System Spare Parts List

Make: **Flex-Kleen**
Model: **84-BVBS-25-IIG**
Serial: **M34706**
Job #: **57350 (MEC Company)**

Induced Draft (ID) Fan Assembly (M4443)

A.	(1)	Electric Motor	460/3/60, 5hp, 3455rpm, 184T Frame
B.	(1)	Blower Impeller	Dayton Mod #602-14-4003-5

Reverse Blower Assembly (Compressed Air)

A.	(1)	Solenoid Valve	Part #: E20929
B.	(1)	Diaphragm Valve	Part #: M14909

Filters

A.	(24)	Filter Tubes (Flex-Kleen)	Part #: B21119 (6" dia., 86" Long)
B.	(2)	Filter Cage (Flex-Kleen)	Part #: C10111
C.	(2)	Bag Clamp (Flex-Kleen)	Part #: M12803

#8 Baghouse System Spare Parts List

Mfg.: **Donaldson, Inc. Day Div.**
Model: **376-RFW-10**
S/N: **IG1854201**
Filter Part No.: **PO30664-016-210**

Induced Draft (ID) Fan Assembly (M6501)

A.	(1)	Electric Motor	460/3/60, 150hp, 1785 rpm, 445T Frame
B.	(1)	Drive Sheave	6-5V-10.9-E
C.	(1)	Drive Sheave Taper Bushing	E 3-3/8"
D.	(3)	Drive Belts	5VX1700
E.	(1)	Driven Sheave	6-5V-11.3-E
F.	(1)	Driven Sheave Taper Bushing	E 3-7/16"
G.	(1)	Fan Shaft	Made at the plant as needed
H.	(2)	Fan Shaft Bearings (Link-Belt)	PLB6855R

Reverse Blower Assembly (M6503)

A.	(1)	Electric Motor	460/3/60, 5hp, 1750rpm, 213T frame
B.	(1)	Drive Sheave	2 B 9.4 SK
C.	(1)	Drive Sheave Taper Bushing	SK 1-3/8"
D.	(2)	Drive Belts	BX54
E.	(1)	Driven Sheave	2 B 6.4 SDS
F.	(1)	Driven Sheave Taper Bushing	SDS 1 5/16"
G.	(1)	Blower Complete (MD Pneumatics)	Model #: 3206-46L3
H.	(1)	Blower Inlet Filter (NAPA)	6078

Sweep Arm Assembly (M6502)

A.	(1)	Electric Motor	Baldor (Ex. Pf.) #VM7002A
B.	(1)	Gearbox Complete	Boston #FWC 721B-600S B5 J1
C.	(1)	Drive Sprocket	Part #: 8PP-29073-00 (#50-24T)
D.	(1)	Drive Chain	RC #50 x 92 links & master
E.	(1)	Driven Sprocket	Part #: 8PP-29072-00 (#50-70T)
F.	(1)	Chain Tensioner	Part #: 8PP-29077-00
G.	(1)	Solenoid valve, Asco	Part #: 8PP-29082-01
H.	(1)	Timer (w/o box)	Part #: 8PP-29240-00
I.	(1)	Secondary Diaphragm Assembly	Part #: 3EA-29021-00
J.	(1)	Main Diaphragm	Part #: 8PP-29046-02
K.	(1)	Pilot Spring	Part #: 8PP-29045-02
L.	(1)	Main Spring	Part #: 8PP-29046-02
M.	(1)	Bronze Bearing	Part #: 8PP-29051-00
N.	(1)	Bearing Assembly, Pivot Shaft	Part #: 3EA-29079-01
O.	(1)	Motion Sensor (Pepperl-Fuchs)	#NJ40-U4-W

#8 Baghouse System Spare Parts List

Filters

A.	(376)	Filter Bag (DuraLife)	Part #: P030664-016-210
B.	(10)	Filter Cage	Part #: 4MA-56417-05

Airlock (M6504)

A.	(1)	Electric Motor	460/3/60, 2hp, 1725rpm, F145TC frame
B.	(1)	Gearbox Complete	Dodge Quantis #HB482CN140TC
C.	(1)	Drive Sprocket	60 B 17, 1-1/4" Bore
E.	(1)	Drive Chain	RC #60 x 52 links & Master
F.	(1)	Driven Sprocket	60 B 70, 2-7/16" Bore
H.	(2)	Airlock Shaft Bearings	Dodge #F4B-SC-207 (#124217)
I.	(6)	Airlock Wipers	Made as needed
J.	(1)	Motion Sensor (Pepperl-Fuchs)	#NJ40-U4-W
K.	(1)	Plug Detector (Dynatrol)	#CL-10DJ

#9 Baghouse System Spare Parts List

Make: **Donaldson, Inc. Day Div.**
Model: **124-RFW-10**
Serial:
Job #:

Induced Draft (ID) Fan Assembly (M3204)

A.	(1)	Electric Motor	460/3/60, 40hp, 1800 rpm, 324T Frame
B.	(1)	Drive Sheave	3-B-11.0-SK
C.	(1)	Drive Sheave Taper Bushing	SK 2-1/8"
D.	(3)	Drive Belts	BX100
E.	(1)	Driven Sheave	3-B-7.0-SK
F.	(1)	Driven Sheave Taper Bushing	SK 2-3/16"
G.	(1)	Fan Shaft	Made at the plant as needed
H.	(1)	Fan Shaft Bearing (Sheave Side)	PEU335 (Link-Belt)
I.	(1)	Fan Shaft Bearing (Fan Side)	PU335 (Link-Belt)

Reverse Blower Assembly (M3202)

A.	(1)	Electric Motor	460/3/60, 3hp, 1750rpm, 182T frame
B.	(1)	Drive Sheave	2 B 4.8 SDS
C.	(1)	Drive Sheave Taper Bushing	SDS 1-1/8"
D.	(2)	Drive Belts	A38
E.	(1)	Driven Sheave	2 B 4.8 SDS
F.	(1)	Driven Sheave Taper Bushing	SDS 15/16"
G.	(1)	Blower Complete (MD Pneumatics)	Model #: 3204-46L3
H.	(1)	Blower Inlet Filter (WIX)	46078

Sweep Arm Assembly (M3201)

A.	(1)	Electric Motor	Baldor (Ex. Pf.) #VM7002A
B.	(1)	Gearbox Complete	Boston #FWC 721B-600S B5 J1
C.	(1)	Drive Sprocket	Part #: 8PP-29233-00 (#50, 24T)
D.	(1)	Drive Chain	Part #: 8PP-29078-01, #50, 78 Links
E.	(1)	Driven Sprocket	Part #: 8PP-29232-00 (#50, 60T)
F.	(1)	Chain Tensioner	Part #: 8PP-29077-00
G.	(1)	Solenoid valve, Asco	Part #: 8PP-29082-01
H.	(1)	Timer (w/o box)	Part #: 8PP-29240-00
I.	(1)	Secondary Diaphragm Assembly	Part #: 3EA-29036-00
J.	(1)	Main Diaphragm	Part #: 3EA-29039-00
K.	(1)	Pilot Spring	Part #: 8PP-29045-01
L.	(1)	Main Spring	Part #: 8PP-29046-01
M.	(1)	Bronze Bearing	Part #: 8PP-29060-01
N.	(1)	Pivot Bearing Assembly	Part #: 3EA-29079-01
O.	(1)	Motion Sensor (Pepperl-Fuchs)	#NJ40-U4-W

#9 Baghouse System Spare Parts List

Filters

A.	(124)	Filter Bag (DuraLife)	Part #: P030664-016-210
B.	(10)	Filter Cage	Part #: 4MA-56417-05

Airlock (M3203)

A.	(1)	Electric Motor	460/3/60, 1hp, 1740rpm, 56C frame
B.	(1)	Gearbox Complete (Boston)	Mod #:F726B40SB56, S/N: 94741207
C.	(1)	Drive Sprocket	60 B 16, 1-1/8" straight bore
E.	(1)	Drive Chain	RC #60 x 39 links & Master
F.	(1)	Driven Sprocket	60 B 32, 1-11/16" straight bore
H.	(2)	Airlock Shaft Bearings	Fafnir #RCJC 1-11/16"
I.	(6)	Airlock Wipers	Made as needed
J.	(1)	Motion Sensor (Pepperl-Fuchs)	#NJ40-U4-W
K.	(1)	Plug Detector (Dynatrol)	#CL-10DJ

E-Tube WESP Spare Parts List

Mfg: **GeoEnergy International Corp.**
Model: **1013-378 2 T/R**
Serial:
Job #:

Transformer Rectifier (M4232 & M4237)

A.	(1)	Controller, PCA Micro Kraft	Part #: 091898
B.	(1)	SCR Trigger Unit, PCA	Part #: 191318
C.	(1)	High Voltage Bushing	Part #: 291670
D.	(1)	Thermostat and level switch	Part #: 420833
E.	(2)	Thyristor	Part #: 520468
F.	(1)	Shunt, 600mA meter	Part #: 530546
G.	(1)	Overvoltage Protection	Part #: 531936
H.	(1)	Service Set C/C	Part #: 291579A
I.	(1)	Service Set T/R	Part #: 291580A

Instrumentation

A.	(1)	Float Switch, SST ball	Part #: 1011
B.	(1)	Float Switch weight	Part #: 1012
C.	(1)	Thermocouple, gas, with transmitter	Part #: 1020
D.	(1)	Milltronics, "Probe", 2" NPT	Part #: 1040
E.	(1)	Milltronics, "Probe", with 3" Flange	Part #: 1041
F.	(1)	Gauge, pressure transducer	Part #: 1050
G.	(1)	Bubbler tube sensor complete assembly	Part #: 1060

Valves

A.	(1)	Solenoid valve for actuators	Part #: 2120
B.	(1)	1-1/2" quick connect assembly	Part #: 2141

Manways

A.	(1)	24" Viton gasket	Part #: 3011
B.	(1)	32" Viton gasket	Part #: 3012
C.	(1)	20" Buna N gasket	Part #: 3013
D.	(1)	10" Buna N gasket	Part #: 3014

Caustic Pump (M4236)

A.	(1)	Electric Motor	460/3/60, 3/4hp, 1725rpm, D56c Frame
B.	(1)	Caustic Pump Complete (Gear Iron)	Part #: 4012

E-Tube WESP Spare Parts List

Recycle Pumps (M4235 & M4241)

A.	(1)	Electric Motor	460/3/60, 40hp, 1775rpm, 324T Frame
B.	(1)	Impeller (item 101)	Part #: 4020A
C.	(1)	Mechanical Seal (item 383)	Part #: 4020B
D.	(1)	Shaft Sleeve (item 126)	Part #: 4020C
E.	(1)	Shaft (item 122)	Part #: 4020D
F.	(1)	Pump repair kit (item 906A)	Part #: 4020E

Transfer Pump (M4234)

A.	(1)	Electric Motor	460/3/60, 50hp, 1775rpm, 326TS Frame
B.	(1)	Impeller (item 101)	Part #: 4030A
C.	(1)	Mechanical Seal (item 383)	Part #: 4030B
D.	(1)	Shaft Sleeve (item 126)	Part #: 4030C
E.	(1)	Shaft (item 122)	Part #: 4030D
F.	(1)	Pump repair kit (item 906A)	Part #: 4030E

Flush Pump (M4240)

A.	(1)	Electric Motor	460/3/60, 20hp, 3525rpm, 256T Frame
B.	(1)	Impeller (item 101)	Part #: 4040A
C.	(1)	Mechanical Seal (item 383)	Part #: 4040B
D.	(1)	Shaft Sleeve (item 126)	Part #: 4040C
E.	(1)	Shaft (item 122)	Part #: 4040D
F.	(1)	Pump repair kit (item 906A)	Part #: 4040E

Area Sump Pump (M4239)

A.	(1)	Electric Motor	460/3/60, 3hp, 3429rpm, 182T Frame
B.	(1)	Impeller (item 2)	Part #: 4050A
C.	(1)	Mechanical Seal (item 3)	Part #: 4050B
D.	(1)	Shaft Sleeve (item 21)	Part #: 4050C
E.	(1)	Shaft (item 18)	Part #: 4050D
F.	(1)	Pump repair kit (item 906A)	Part #: 4050E

Bete Spray Nozzles

A.	(1)	Complete set for unit	Part #: Varies

Elastomeric Components

A.	(1)	Isolation joint, Neoprene wrap	Part #: 6000
B.	(1)	Isolation joint, Neoprene with Kevlar	Part #: 6002
C.	(10')	1-1/2" diameter gas hose	Part #: 6020

Water Treatment

A.	(1)	6" #105 Plenty strainer basket	Part #: 7052
B.	(1)	6" #105 Plenty strainer Viton O-ring	Part #: 7062

E-Tube WESP Spare Parts List

ID Fan (M4242)

A.	(1)	Electric Motor	460/3/60, 350hp, 1780rpm, N587UZ Frame
B.	(1)	Drive Sheave	8-8V-14.0-J
C.	(1)	Drive Sheave Bushing	J-QD-3-7/8
D.	(8)	Drive Belts	8V-2240
E.	(1)	Driven Sheave	8-8V-19.0-M
F.	(1)	Driven Sheave Bushing	M x 4-15/16"
G.	(2)	Fan shaft Bearings	SKF-528-SAF (4-15/16")

Miscellaneous Components

A.	(1)	Pass through bushing (Lapp)	Part #: 0010
B.	(4)	Stand off insulator (Lapp)	Part #: 0011
C.	(8)	Insulator gasket	Part #: 0012
D.	(4)	Insulator top mount hardware	Part #: 0014
E.	(1)	Purge compartment heater (3kW)	Part #: 0030
F.	(2)	Purge air filter	Part #: 0033
G.	(1)	Mesh pad mist eliminator, 6" f/f (set)	Part #: 0050

Appendix B
Konus Operation and Maintenance Logs

Thermal Oil Heater System

Date: _____ Shift: Day Night (circle one) Crew: _____

Operator: _____

Time	Bark Use Unit # 1	Bark Use Unit # 2	Pond Temperature #1	Pond Temperature #2
7:00				
8:00				
9:00				
10:00				
11:00				
12:00				
1:00				
2:00				
3:00				
4:00				
5:00				
6:00				
Total				

Temperature	Set Point	Temp
Return Oil		
Feed Oil		
Space Heat		
Pond #1		
Pond #2		
	#1	#2
Flue Gas		
Blend Air		
Economizer		
Refractory		

Running Time (minutes)	#1	#2	Total
Wood Fuel			
Geka Gas Backup Fuel run time:			

Pond Flow Meters Digital Readout	
Pond #1	
Pond #2	

*Flake Use
* Full bucket wt. for Case loader 860lbs.

Green End			
Konus Backup Diesel			Geka
Begin		Begin	
End		End	
Use		Use	

Fuel used to ignite Konus
Type: _____
Amount:
Inspect T.O. system for leaks
Visual: _____
Initials:

Emergency Diesel Pump	Checked	Filled
Fuel Level		
Oil Level		
Test Run? No ☐	Yes ☐	
Battery Charger Checked	☐	☐

ASH OUTPUT FROM	Baghouse	Cyclone
Time:		

Tank Level (inches)	Bark Feed Screw Revolutions		
Thermal Oil Tank		Unit # 1	Unit # 2
☐	Begin		
Blow out Bark Scale ☐	End		
	Use		
Total Tonnage			

Operation

Space Heat Pump	#1 ☐	#2 ☐			I.D. Damper	Open ☐	Closed ☐	Auto ☐	Off ☐	
Baghouse	Bypass ☐	Auto ☐			I.D. Fan	Open ☐	Closed ☐	Auto ☐	Off ☐	
Combustion Air Fan	Manual ☐	Auto ☐	Off ☐		Fill Drain Pump #1	Drain ☐	Fill ☐	Auto ☐	Off ☐	
Combustion Air Damper	Manual ☐	Auto ☐	Off ☐		Fill Drain Pump #2	Drain ☐	Fill ☐	Auto ☐	Off ☐	
Feed Rate	Manual ☐	Auto ☐			Deash	Manual ☐	Auto ☐	Off ☐		
Blend Air Damper	Open ☐	Closed ☐			Baghouse Pulser	On ☐	Off ☐			
Bark Bin Outfeed	Manual ☐	Auto ☐	Off ☐		Fuel can	Full ☐	Properly stored ☐			

Comments: Check here and write on back ☐

APPENDIX C
Baghouse Maintenance

Newberry Siding Plant

BAGHOUSE PREVENTATIVE MAINTENANCE REPORT

DATE: _____ Name: _____

Time: _____

SHIFT: **DAY** **Evening** **NIGHT** CREW: **A** **B** **C**
(Circle One) (Circle One)

BAGHOUSE # _____ _____ BAGHOUSE #

 # 1 Line Cleanup
 # 2 Flying Cut Off Saw / Forming Line
 # 5 Dryer Area
 # 6 Dryer Burner Fuel Bin
#8 Sawline
#9 Metering Bin/Fines Recovery

Daily Preventative Maintenance

	Task	Baghouse Number #1		#2	
	*Normal operating ranges for B.H. 1 and 2	1.5 - 5.0		1.5 - 5.0	
1	RECORD MAGNEHELIC READING				
2	IS BH OPERATING PROPERLY	Y	N	Y	N
3	HAS BH DELUGE GONE OFF? IF YES PUT IN TIME	Y	N	Y	N
4	ANY VISIBLE EMISSIONS (DAY SHIFT ONLY)	Y	N	Y	N
5	ANY DISCHARGE FROM BAGHOUSE	Y	N	Y	N
6	CLEAN PULSE FILTER DAILY	Y	N		

CONVEYER MAGNEHELIC READINGS

4401 SBO		**4403 BST**		**4213 BCT**	
4402 CBO		**4212 TST**			

		#5	#6	#8	#9
	*Normal operating ranges for B.H. 5,6,8&9	3.0-4.0	0.5-2.0	1.0-4.0	0.5-4.0
1	RECORD MAGNEHELIC READING				
2	IS BH OPERATING PROPERLY	Y/N	Y/N	Y/N	Y/N
3	HAS BH DELUGE GONE OFF? IF YES PUT IN TIME	Y/N	Y/N	Y/N	Y/N
4	ANY VISIBLE EMISSIONS (DAY SHIFT ONLY)	Y/N	Y/N	Y/N	Y/N
5	ANY DISCHARGE FROM BAGHOUSE	Y/N	Y/N	Y/N	Y/N
6	BLOW OUT FILTERS EACH SHIFT			Y/N	

Malfunction reporting: If any Maintenance or electrical work is done on a Baghouse.
Describe in detail what work was done to restore baghouse to normal operation.

Shut down Time:	Start up time:	BH #	W/O #:

☐ **Check box for Additional comments on back**

*If operating higher than normal operating conditions contact your Supervisor.

Newberry Siding Plant

BAGHOUSE PREVENTATIVE MAINTENANCE REPORT

DATE: _____ Name: _____

Time: _____

SHIFT: **DAY** **NIGHT** (Circle One)

CREW: **A** **B** **C** **D** (Circle One)

BAGHOUSE #	**BAGHOUSE NAME**
#3	**Bark Bin**
#4	**Konus**

Daily Preventative Maintenance

	Task	Baghouse Number #3		Baghouse Number #4	
	*Normal operating ranges for B.H. 3 and 4	.5-3.0		1.0-4.0	
1	RECORD MAGNEHELIC READING				
2	IS BH OPERATING PROPERLY	Y	N	Y	N
3	HAS BH DELUGE GONE OFF? IF YES PUT IN TIME	Y	N	Y	N
4	ANY VISIBLE EMISSIONS (DAY SHIFT ONLY)	Y	N	Y	N
5	ANY DISCHARGE FROM BAGHOUSE	Y	N	Y	N

Malfuntion reporting: If any Maintenance or electrical work is done on a Baghouse.
Describe in detail what work was done to restore baghouse to normal operation.

Shut down Time:	Start up time:	BH #	W/O #:

☐ **Check box for Additional comments on back**

*If operating higher than normal operating conditions contact your Supervisor.