

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

EFFECTIVE DATE: September 22, 2021
REVISION DATES: May 20, 2022; October 25, 2022

ISSUED TO

Billerud Escanaba LLC and Omya, Incorporated

State Registration Number (SRN): A0884

LOCATED AT

7100 County Road 426, Escanaba, Delta County, Michigan 49829

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-A0884-2021b

Expiration Date: September 22, 2026

Administratively Complete ROP Renewal Application Due Between
March 22, 2025 and March 22, 2026

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

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-A0884-2021b

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

Michigan Department of Environment, Great Lakes, and Energy

Michael Conklin, Acting Marquette District Supervisor

TABLE OF CONTENTS

AUTHORITY AND ENFORCEABILITY 5

SECTION 1 – BILLERUD ESCANABA LLC 6

A. GENERAL CONDITIONS..... 7

Permit Enforceability 7

General Provisions..... 7

Equipment & Design 8

Emission Limits..... 8

Testing/Sampling 8

Monitoring/Recordkeeping 9

Certification & Reporting 9

Permit Shield 10

Revisions 11

Reopenings..... 11

Renewals..... 12

Stratospheric Ozone Protection 12

Risk Management Plan..... 12

Emission Trading 12

Permit to Install (PTI) 13

B. SOURCE-WIDE CONDITIONS 14

C. EMISSION UNIT SPECIAL CONDITIONS 17

EMISSION UNIT SUMMARY TABLE..... 17

EU7B17 - Boiler 7 27

EU8B13 - Boiler 8 29

EUCS14 - Chip Thickness Screening..... 32

EU2PD40 - Pulp Dryer..... 34

EUCOND - Condensate Collection and Treatment..... 36

EURF15 - Chemical Recovery Furnace 38

EUST15 - Smelt Dissolving Tank 45

EUS29 - Reausticizing System..... 48

EUPB - Paint Spray Booth 51

D. FLEXIBLE GROUP SPECIAL CONDITIONS..... 53

FLEXIBLE GROUP SUMMARY TABLE..... 53

FG9B03 - Boiler 9 System 58

FG11BFA - Boiler 11 System..... 62

FGSB14 - Chip Surge Bins 70

FGRMP - RMP System..... 72

FGPAPER - Paper Machine Systems 74

FGCOATER - Paper Machine Coaters..... 77

FGSTARCH - Starch Handling and Make down..... 80

FGBBKRAFT - Kraft Mill Subpart BB System..... 82

FGLVHC - LVHC System..... 84

FGHVLC - HVLC System..... 86

FGTO33 - Thermal Oxidizer System..... 88

FGB25 – Bleaching System..... 93

FGLK29 - Lime Kiln System..... 97

FGSIRICE - SI RICE Units.....	102
FGCIRICE - CI RICE Unit.....	105
FGBMACTB09B11 - Boiler 9 and Boiler 11.....	108
FGBMACTB07B08 - Boiler 7 and Boiler 8.....	117
E. NON-APPLICABLE REQUIREMENTS	121
APPENDICES	125
Appendix 1-1. Acronyms and Abbreviations.....	125
Appendix 2-1. Schedule of Compliance	126
Appendix 3-1. Monitoring Requirements	126
Appendix 4-1. Recordkeeping	126
Appendix 5-1. Testing Procedures	126
Appendix 6-1. Permits to Install.....	126
Appendix 7-1. Emission Calculations	126
Appendix 8-1. Reporting	127
SECTION 2 – OMYA, INCORPORATED.....	128
A. GENERAL CONDITIONS.....	129
Permit Enforceability	129
General Provisions.....	129
Equipment & Design	130
Emission Limits.....	130
Testing/Sampling	130
Monitoring/Recordkeeping	131
Certification & Reporting	131
Permit Shield	132
Revisions	133
Reopenings.....	133
Renewals.....	134
Stratospheric Ozone Protection	134
Risk Management Plan.....	134
Emission Trading	134
Permit to Install (PTI).....	135
B. SOURCE-WIDE CONDITIONS	136
C. EMISSION UNIT SPECIAL CONDITIONS	139
EMISSION UNIT SUMMARY TABLE.....	139
EUCARBONATORS	140
EULIME	142
EUCOOLTWR	144
EUROAD	146
D. FLEXIBLE GROUP SPECIAL CONDITIONS.....	148
FLEXIBLE GROUP SUMMARY TABLE.....	148
FGPCCPLANT.....	149
E. NON-APPLICABLE REQUIREMENTS	151
APPENDICES	152
Appendix 1-2. Acronyms and Abbreviations.....	152

Appendix 2-2. Schedule of Compliance	153
Appendix 3-2. Monitoring Requirements	153
Appendix 4-2. Recordkeeping	153
Appendix 5-2. Testing Procedures	153
Appendix 6-2. Permits to Install.....	153
Appendix 7-2. Emission Calculations	153
Appendix 8-2. Reporting	153

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.

SECTION 1 – BILLERUD ESCANABA LLC

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))**

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
Expiration Date: September 22, 2026
PTI No: MI-PTI-A0884-2021b

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 state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
 - a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
 - b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
 - c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

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

Permit Shield

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

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

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

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

Revisions

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

Reopenings

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

Renewals

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

Stratospheric Ozone Protection

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

Risk Management Plan

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

Emission Trading

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

Permit to Install (PTI)

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

Footnotes:

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

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

B. SOURCE-WIDE CONDITIONS

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

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

SOURCE-WIDE CONDITIONS

DESCRIPTION

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

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

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 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall carry out a Fugitive Dust Control Program to control fugitive dust emissions from the plant roadways, material storage piles, and other operations throughout the plant, including keeping of records of fugitive dust control activities and dates carried out. **(R 336.1201, R 336.1371, R 336.1372, R 336.1901, R 336.1213(3))**
2. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the AQD Division Director.
3. Each Responsible Official shall certify annually the compliance status of the stationary source with all stationary Source-Wide conditions. This certification shall be included as part of the annual certification of compliance as required in the General Conditions in Part A and Rule 213(4)(c). **(R 336.1213(4)(c))**

Footnotes:

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

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

C. EMISSION UNIT SPECIAL CONDITIONS

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

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

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU7B17	The Boiler 7 is a Riley boiler rated for 150,000 pounds of steam per hour (approximately 226 million BTU per hour heat input) that provides steam for mill processes. The Boiler 7 burns natural gas and fuel oil.	1947	FGMACTB07B08
EU8B13	The Boiler 8 is a Combustion Engineering boiler rated for 450,000 pounds of steam per hour (approximately 594 million BTU per hour heat input) that provides steam for mill processes and steam turbine-generator sets for producing electricity. A Flue Gas Recirculation system was installed on the Boiler 8 in 2003 for compliance with the NOx emission limitations specified in Rule 336.1801. The Boiler 8 burns natural gas and fuel oil.	1968 1978 2003	FGMACTB07B08
EU9B03	The Boiler 9 is a Babcock & Wilcox boiler rated for 250,000 pounds of steam per hour (approximately 360 million BTU per hour heat input) that provides steam for mill processes and steam turbine-generator sets for producing electricity. The Boiler 9 burns primarily wood residue but may also burn natural gas and paper cores. Boiler 9 emissions are controlled by a multiclone dust collector and two wet scrubbers.	1970	FGBMACTB09B11 FG9B03
EUSB03	Wood Residue Surge Bin for the Boiler 9.	1972	FG9B03

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
 Expiration Date: September 22, 2026
 PTI No: MI-PTI-A0884-2021b

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU11B68	The Boiler 11 is an ABB Combustion Engineering combination fuel boiler rated for 750,000 pounds of steam per hour (approximately 1040 million BTU per hour heat input) that provides steam for mill processes and steam turbine-generator sets for producing electricity. The Boiler 11 burns natural gas and pulverized coal from four tangentially located windboxes. The boiler also burns wood residue, wastewater treatment plant residuals and tire-derived fuel (TDF) from a traveling grate located at the bottom of the unit. Emissions are controlled by an over-fired air system, multiclone dust collector, and electrostatic precipitator.	1981 1986 2012	FG11BFA, FGBMACTB09B11
EUCH68	Coal Handling – Coal storage pile and handling processes.	1981	FG11BFA
EUFH68	Fuel Handling for Boiler 11 including wood residue, wastewater treatment plant residuals, TDF, and engineered fuel pellets	1981	FG11BFA
EU1S68	#1 Coal Silo for Boiler 11 – Surge bin for coal from feed conveyor. Emissions are controlled by a baghouse.	1981	FG11BFA
EU2S68	#2 Coal Silo for Boiler 11 – Surge bin for coal from feed conveyor. Emissions are controlled by a baghouse.	1981	FG11BFA
EU3S68	#3 Coal Silo for Boiler 11 – Surge bin for coal from feed conveyor. Emissions are controlled by a baghouse.	1981	FG11BFA
EU1AS68	#1 Ash Silo for Boiler 11 – Collects wet, multiclone ash from the Boiler 11 dust collector hoppers. Emissions are controlled by a pugmill for ash wetting prior to truck loading.	1981	FG11BFA
EU2AS68	#2 Ash Silo – Collects dry, precipitator ash from the Boiler 11 precipitator ash hoppers. Emissions are controlled by a silo baghouse and a pugmill for ash wetting prior to truck loading.	1981	FG11BFA
EU1SB14	#1 Chip Surge Bin - The Chip Surge Bins are part of the pneumatic transfer system from the chippers to the screening building. Emissions are controlled by a cyclone dust collector.	1972	FGSB14
EU2SB14	#2 Chip Surge Bin - The Chip Surge Bins are part of the pneumatic transfer system from the chippers to the screening building. Emissions are controlled by a cyclone dust collector.	1972	FGSB14

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCS14	The Chip Thickness Screening System includes #1 Chip Reclaim Surge Bin, #2 Chip Reclaim Surge Bin, Air Density Separator #1A, Air Density Separator #1B, Air Density Separator #2A, Air Density Separator #2B. Emissions are controlled by two chip reclaim cyclones and four air density separator cyclones.	1989	NA
EURMP61	Refiner Mechanical Pulping System - From the Chip Surge Bin (EUSB61), the chips are washed, steamed and mechanically pulped in primary and secondary refiners. Following refining, the pulp is cured, screened, and washed. Typically, filler, caustic, and bleaching agent are added to the pulp before entering a storage chest. The pulp is thickened, and additional bleaching agent may be added. Specialty chemicals such as biocides and cleaning agents may also be used. The pulp is used as supply stock for the paper machines.	1982 2007	FGRMP
EUCS61	Chip Silo for the Refiner Mechanical Pulping System - Chips from storage piles are blown into a Chip Silo. Emissions are controlled by a chip silo cyclone.	1982	FGRMP
EUSB61	Chip Surge Bin for the Refiner Mechanical Pulping System – Chips from the Chip Silo (EUCS61) are processed in a disc scalper before being pneumatically transferred to the Chip Surge Bin. From the Chip Surge Bin, chips are conveyed to the Refiner Mechanical Pulping System (EURMP61). Emissions are controlled by a chip surge bin cyclone.	1982	FGRMP
EU1PM32	The #1 Paper Machine System includes the paper machine and associated stock preparation equipment. The machine is comprised of a wet end, press section, and dry end. At the wet end, refined wood fiber is introduced onto the forming board in a dilute solution. The press section is used to consolidate the web and to remove water. At the dry end, steam can dryer sections drive off remaining water. Materials added in the paper machine include alum, calcium carbonate, clay, titanium dioxide, cooked starch, retention aid, size, and dyes. Stock inputs to the blend chest may include bleached hardwood, softwood, or RMP pulp, and coated and uncoated recycled broke.	1920	FGPAPER

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU1C36	The #1 Coater System is a double coating process in which two coating applications are applied to both the top and bottom of the sheet. Paper coating is performed to enhance the optical properties, printability, and visual appearance of the final product. Materials applied at the coater include pigments, binders, cross linkers, dyes, biocides, and dispersants. The coating is dried using infrared dryers, air float dryers, and steam can dryer sections.	1946 1994	FGCOATER
EUSS43	#1 Coater Dry Starch System - includes #1 and #2 Starch Silos, #1 and #2 Starch Day Bins, and #1 and #2 Starch Wet Out Tanks. Emissions are controlled by four baghouse dust collectors.	1946 1994	FGSTARCH
EU2PD40	The #2 Pulp Dryer System is comprised of a pulp make down system and a pulp dryer. The pulp make down system consists of baled pulp storage and hydropulpers used for repulping baled pulp. Stock inputs to the blend chest include bleached hardwood or softwood pulp from the bleaching system as well as baled pulp. At the wet end, refined wood fiber is introduced as a dilute water solution. The press section consolidates the web and removes water. At the dry end, steam can dryer sections drive off much of the remaining water. Pulp is dried, baled, and stored. Baled pulp is used as a stock input for one of the paper machines, or may be sold as pulp.	1920	NA
EU3PM07	The #3 Paper Machine System includes the paper machine and associated stock preparation equipment. The machine is comprised of a wet end, press section, and dry end. At the wet end, refined wood fiber is introduced onto the forming board in a dilute solution. The press section is used to consolidate the web and to remove water. At the dry end, steam can dryer sections drive off remaining water. Materials added in the paper machine include alum, calcium carbonate, clay, titanium dioxide, cooked starch, retention aid, size, and dyes. Stock inputs to the blend chest may include bleached hardwood, softwood, or RMP pulp, and coated and uncoated recycled broke.	1969	FGPAPER
EU1SS08	#1 Starch Silo – Starch silo for the #3 Paper Machine (EU3PM07). Emissions are controlled by a baghouse.	1969	FGSTARCH

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
 Expiration Date: September 22, 2026
 PTI No: MI-PTI-A0884-2021b

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU1M08	#1 Starch Make down tank – Starch Make down tank for the #3 Paper Machine (EU3PM07). Emissions are controlled by a baghouse.	1969	FGSTARCH
EU3C27	The #3 Coater System uses two blade coating heads to apply a top and base coat to the sheet. Paper coating is performed to enhance the optical properties, printability, and visual appearance of the final product. Materials applied at the coater include pigments, binders, cross linkers, and dyes. The coating is dried using air float dryers and steam can dryer sections.	1969	FGCOATER
EU2SS08	#2 Starch Silo – Starch silo for the #3 Coater System. Emissions are controlled by a baghouse.	1969	FGSTARCH
EU3SS08	#3 Starch Silo – Starch silo for the #3 Coater System. Emissions are controlled by a baghouse.	1969	FGSTARCH
EU2M08	#2 Starch Make down Tank – Starch Make down tank for the #3 Coater System. Emissions are controlled by a baghouse.	1969	FGSTARCH
EU4PM64	The #4 Paper Machine System includes the paper machine and associated preparation equipment. The machine is comprised of a wet end, press section, and dry end. At the wet end, refined wood fiber is introduced onto the forming board in a dilute solution. The press section is used to consolidate the web and to remove water. At the dry end, steam can dryer sections drive off remaining water. Materials added in the paper machine include alum, calcium carbonate, clay, titanium dioxide, cooked starch, retention aid, size, and dyes. Stock inputs to the blend chest may include bleached hardwood, softwood, or RMP pulp, and coated and uncoated recycled broke.	1982 2001	FGPAPER
EU4C65	The #4 Coater System uses two blade coating heads to apply a top and base coat to the sheet. Paper coating is performed to enhance the optical properties, printability, and visual appearance of the final product. Materials applied at the coater include pigments, binders, cross linkers, and dyes. The coating is dried using infrared dryers, air float dryers, and steam can dryer sections.	1982	FGCOATER
EUSS66	Starch Storage for the #4 Coater System – Consists of the #1 and #2 Starch Silos. Emissions from each silo are controlled by a baghouse.	1982	FGSTARCH

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUBB05	The Evaporator System consists of equipment used to concentrate weak black liquor as a part of the chemical recovery process for kraft pulping liquor. Water and volatiles are driven from the liquor using six evaporator effects followed by concentrators. Most of the vapors are condensed using non-contact surface condensers and a vapor condensing system. LVHC noncondensable gases from the evaporator hotwell are collected and vented into a closed-vent system and incinerated in the Thermal Oxidizer or the Lime Kiln as a backup incineration device.	1972 1984 2009	FGLVHC FGBBKRAFT
EUME05	Miscellaneous Evaporator System Devices consist of the black liquor storage tanks associated with the evaporator system. With the exception of the strong waste tank and the soap tank, fugitive breathing losses from these tanks are collected and incinerated in the #10 Recovery Furnace.	1972 1984	FGHVLC
EUBB22	The Digester System consists of batch digesters, blow tanks, and a blowheat condensing system. Blow and relief gases from the digesters are condensed in the blowheat system which also serves to recover heat energy and turpentine. LVHC noncondensable gases from the blowheat condensing system are enclosed and vented into a closed-vent system and incinerated in a dedicated Thermal Oxidizer or the Lime Kiln as a backup incineration device. HVLC noncondensable gases from the digester domes and capping valves are mixed with HVLC noncondensable gases from the Brownstock System, Evaporator System, and Chemical Recovery Furnace System and used for combustion air for #10 Recovery Furnace.	1972 1984	FGBBKRAFT FGLVHC FGHVLC
EUOT22	Digester Other Devices include the condensate accumulator tank, secondary blow heat condenser, and the secondary digester relief condenser.	1972 1984	FGLVHC
EUMT22	Miscellaneous Turpentine Handling Devices include the turpentine decanter and turpentine storage tank. Enclosures and a closed vent collection system route LVHC gases to the Thermal Oxidizer or the Lime Kiln as a backup for incineration.	1972 1984	FGLVHC

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUBB33	Steam Stripping System NSPS Devices consist of the steam stripper column and reflux condenser. The Steam Stripping System is used to pre-treat kraft pulping process condensates regulated under the Standards for Kraft Pulping Process Condensates 40 CFR 63.446 (see EUCOND). Final condensate treatment is done at the Brownstock washers (see EUBB23). Enclosures and a closed vent collection system route LVHC gases to the Thermal Oxidizer or the Lime Kiln as a backup for incineration.	1972 1984	FGBBKRAFT FGLVHC
EUMC33	Miscellaneous Condensate Stripping System Devices consist of the stripper column feed tank, condensate strainers and condensate heat exchangers. Enclosures and a closed vent collection system route LVHC gases to the Thermal Oxidizer or the Lime Kiln as a backup for incineration.	1972 1984	FGLVHC
EUOC33	The Thermal Oxidizer is a dedicated incineration device for LVHC noncondensable gases from the LVHC Gas Collection System (FGLVHC) and the Kraft Mill Subpart BB Systems (FGBBKRAFT). Emissions from the Thermal Oxidizer are controlled by a packed scrubber using soda ash or caustic soda scrubbing solution to control sulfur dioxide emissions.	1972 1996	FGTO33
EUSA33	The Soda Ash Storage Tank stores soda ash for use as a Thermal Oxidizer scrubbing medium to control sulfur dioxide emissions. Emissions are controlled by a baghouse.	1991	FGTO33
EUCOND	The Condensate Collection and Treatment System is a grouping of equipment used to collect and treat kraft pulping process condensates, and which are subject to the Standards For Kraft Pulping Process Condensates 40 CFR 63.446. The equipment systems subject to the regulation are identified in 40 CFR 63.446(b). Foul condensates are collected at the stripper column feed tank. Foul condensate treatment consists of pre-treatment through the steam stripper (see EUBB33) and final treatment at the brownstock washers (see EUBB23).	NA	NA

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUBB23	The Brownstock NSPS Devices include the knotters, brownstock washers and brownstock filtrate tanks. Brown pulp from the digester blow tanks is processed to remove knots and debris and to recover spent cooking chemicals. Washing is performed using countercurrent rotary vacuum drum washers. Water and evaporator condensate are used for washing. The washed pulp is screened, rinsed, and stored for bleaching. Weak black liquor from the filtrate chests is pumped to storage tanks in the Evaporator System (EUBB05) for further processing. Also, the Brownstock System is used for final treatment of kraft pulping process condensates regulated under the Standards for Kraft Pulping Process Condensates 40 CFR 63.446 (see Condensate Collection and Treatment System EUCOND). A closed vent gas collection system routes HVLC gases to the Recovery Furnace for incineration.	1972 1984	FGBBKRAFT
EURF15	The Chemical Recovery Furnace is used to regenerate chemicals used in the Kraft pulping process. The #10 Recovery Furnace burns black liquor, natural gas, #6 fuel oil, and used oil. Also, the #10 Recovery Furnace receives and incinerates gases from enclosures and closed-vent systems and is used to incinerate High Volume Low Concentration (HVLC) non-condensable gases from the Digester System, Brownstock System, Evaporator System, and Chemical Recovery Furnace System. Emissions are controlled by an electrostatic precipitator. The air handling system has been modified.	1972 1994 2014 10-2017 7-14-2021	NA
EUST15	Smelt Dissolving Tank - Smelt from the recovery furnace is used to produce green liquor, a solution of sodium sulfide and sodium carbonate salts, when it is dissolved in water or weak wash in the Smelt Dissolving Tank. Emissions are controlled by a wet scrubber and mist eliminator.	1972	NA
EUS25	The Bleaching Stage Equipment is used to whiten Brownstock pulp for papermaking. Bleaching is accomplished through the use of chemicals, bleaching towers, extraction towers, and washers. Chlorine dioxide is used for bleaching and is manufactured on site. Off-gases from the Bleaching Stage Equipment are scrubbed in the bleach plant scrubber system, which consists of two packed scrubbers in series.	1972 1996	FGB25

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUB25	The Chlorine Dioxide Generator Plant consists of the chlorine dioxide generator and associated tanks and equipment used to manufacture and store chlorine dioxide, which is used for pulp bleaching. Off-gases from the generator and storage tanks are scrubbed with chilled water in the tail gas scrubber prior to being scrubbed in the bleach plant scrubber system.	1972 1996	FGB25
EUED25	The Extraction Devices include the mixers, towers, washers and filtrate chests associated with the pulp bleaching extraction stages.	1972 1996	FGB25
EUM25	Methanol Storage consists of the methanol storage tank, which stores methanol used in the manufacture of chlorine dioxide.	1972 1996	FGB25
EULK29	The Lime Kiln processes lime mud from Reausticizing System to regenerate calcium oxide. The Lime Kiln (EULK29) is fired with natural gas and/or fuel oil. Calcium oxide produced by the Lime Kiln is conveyed by bucket elevator to storage bins (EULKI29). The Lime Kiln acts as a backup incineration device for the Thermal Oxidizer System. Emissions are controlled by a Venturi scrubber and mist eliminator.	1972 1989	FGLK29
EULKI29	The Lime Storage Bins include two lime storage bins, one for hot lime storage, one for purchased lime storage. A common baghouse dust collector serves the two lime storage bins.	1972	FGLK29
EUS29	The Reausticizing System has one emission unit: Lime Slaker (EUS29). In the slaker, calcium oxide from the Lime Kiln System (FGLK29) reacts with green liquor from the Smelt Dissolving tank (EUST15) to produce white liquor and lime mud. The reaction is carried out in the slaker and causticizers. The mixture is separated in two white liquor clarifiers. White liquor is used in the digesters as a cooking chemical. Lime mud is washed, dewatered and oxidized in the Lime Kiln System to regenerate calcium oxide for the slaking process. Emissions from the slaker are controlled by a wet scrubber.	1972 1984	NA
EUPB	Maintenance Paint Spray Booth. Emissions are controlled by dry exhaust filters.	1994	NA
EULKSIRICE	The Lime Kiln Emergency Drive Motor is a propane fueled spark ignition engine used to power the lime kiln drive in emergency situations. The engine is 4 stroke lean burn rated at 25 HP.	1989	FGSIRICE

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
 Expiration Date: September 22, 2026
 PTI No: MI-PTI-A0884-2021b

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUEOCSIRICE	The EOC Back-up Generator is a propane fueled spark ignition engine used to provide emergency power to the Administrative Building. The engine is 4 stroke lean burn rated at 200 HP.	2001	FGSIRICE
EUE1CIRICE	The E1 Emergency Lift Pump is a diesel powered compression ignition engine pump used for emergency purposes the E1 area. The engine is 4 stroke lean burn rated at 100 HP.	1996	FGCIRICE
EUFW1CIRICE	The Water Treatment Building Emergency Fire Water Pump is a diesel powered compression ignition engine pump used to supply emergency fire water to the water treatment areas. The engine is 4 stroke lean burn rated at 160 HP.	1967	FGCIRICE
EUFW2CIRICE	The Administrative Building Emergency Fire Water Pump is a diesel powered compression ignition engine pump used to supply emergency fire water to the Administration areas. The engine is 4 stroke lean burn rated at 200 HP.	1992	FGCIRICE
EUTTGCIRICE	The Turbine Turning Gear Back-up Generator is a diesel powered compression ignition engine used to supply emergency power to turbine generator area. The engine is 4 stroke lean burn rated at 40 HP.	1972	FGCIRICE

**EU7B17 - Boiler 7
 EMISSION UNIT CONDITIONS**

DESCRIPTION

The Boiler 7 (EU7B17) is a Riley boiler rated for 150,000 pounds of steam per hour (approximately 226 million BTU per hour heat input) that provides steam for mill processes. The Boiler 7 burns natural gas and fuel oil.

Flexible Group ID: FGBMACTB07B08

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fuel Oil— Sulfur content	1.5 percent by weight, calculated on the basis of 18,000 BTU/lb ²	Continuously	EU7B17	SC VI.1	R 336.1401

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall obtain and keep records of the sulfur and BTU content of the fuel oil burned in Boiler 7. For each shipment received, the permittee shall obtain from the supplier a laboratory analysis of the fuel oil sulfur and BTU content. The permittee shall also record the date received, fuel oil grade, source of fuel oil and supplier, and gallons received. The determination of sulfur content shall be carried out in accordance with one of the following procedures: ASTM Method D129-64 or ASTM Method 1552-83 or ASTM Method 2622-87 or ASTM Method 1266-87 or an alternative method approved by the AQD District Supervisor. (R 336.1213(3))

VII. REPORTING

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

See Appendix 8-1

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. SV17031S	78 ¹	96 ¹	R 336.1901

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A, as they apply to EU7B17, by the initial compliance date. **(40 CFR Part 63, Subparts A)**

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).

**EU8B13 - Boiler 8
 EMISSION UNIT CONDITIONS**

DESCRIPTION

The Boiler 8 (EU8B13) is a Combustion Engineering boiler rated for 450,000 pounds of steam per hour (approximately 594 million BTU per hour heat input) that provides steam for mill processes and steam turbine-generator sets for producing electricity. A Flue Gas Recirculation system was installed on the Boiler 8. The Boiler 8 burns natural gas and fuel oil.

Flexible Group ID: FGBMACTB07B08

POLLUTION CONTROL EQUIPMENT

Flue Gas Recirculation System

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx*	0.20 lbs/MMBtu ¹	Ozone Season when firing natural gas	EU8B13	SC VI.2	R 336.1801(13) R 336.1801(1)(f)
2. NOx*	0.40 lbs/MMBtu ¹	Ozone Season when firing residual oil	EU8B13	SC VI.2	R 336.1801(13) R 336.1801(1)(f)
3. NOx*	0.35 lbs/MMBTU ²	30-day rolling average when firing natural gas and/or residual oil	EU8B13	SC VI.5	40 CFR 52.1183(i)

* The permittee shall comply with the appropriate NOx emission limitations averaged over the ozone control season, which is May 1 through September 30, when Boiler 8 is subject to the ozone control season requirements. Note that Boiler 8 is not always run continuously and can qualify as a Peaking Unit per R 336.1801(1)(g) and R 336.1801(14)(c). The Boiler 8 is exempt from the ozone control season requirements following years it qualifies as a Peaking Unit.¹

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fuel Oil – Sulfur content	Average concentration of 1.0 percent by weight, calculated on the basis of 18,000 BTU /lb ²	continuously	EU8B13	SC VI.1	R 336.1201 R 336.1401

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall obtain and keep records of the sulfur and BTU content of the fuel oil burned in Boiler 8. The permittee shall obtain from the supplier a laboratory analysis of the fuel oil sulfur and BTU content for each bulk shipment. The permittee shall also record the date received, fuel oil grade, source of fuel oil and supplier, and gallons received. The determination of sulfur content shall be carried out in accordance with one of the following procedures: ASTM Method D129-64 or ASTM Method 1552-83 or ASTM Method 2622-87 or ASTM Method 1266-87 or an alternative method approved by the AQD District Supervisor. **(R 336.1213(3))**
2. The permittee shall measure NOx emissions using a NOx CEMS during the ozone control period in accordance with the provisions of R 336.1801(11) when subject to the ozone control period as described in Part I above. **(R 336.1801(8))**
3. The permittee shall use the procedures set forth in 40 CFR Part 60, Appendix A and B, and comply with the Quality Assurance procedures in Appendix F, or 40 CFR Part 75 and associated appendices as applicable and acceptable to the AQD. **(R 336.1801(11))**
4. The permittee shall keep records to demonstrate that the sum of the mass emissions during the ozone control period divided by the sum of the heat input during the ozone control period is less than or equal to the emission limitations specified in Table 81 or R 336.1801. **(R 336.1801(5)(a))**
5. The reference test method for assessing compliance with the NOx limit in SC I.3 shall be a continuous emission monitoring system operated in conformance with 40 CFR Part 60, Appendix F. A new 30-day average shall be computed at the end of each calendar day in which the boiler operated, based on the following procedure: first, sum the total pounds of NOx emitted from the unit during the operating day and the previous twenty-nine operating days, second sum the total heat input to the unit in MMBTU during the same period, and third, divide the total number of pounds of NOx emitted by the total heat input during the thirty operating days. **(40 CFR 52.1183(i))**
6. The owner/operator shall maintain the following records regarding Boiler 8 for at least five years **(40 CFR 52.1183(i))**:
 - a. All CEMS data, including the date, place, and time of sampling or measurement; parameters sampled or measured; and results.
 - b. All stack test results.
 - c. Daily records of fuel usage, heat input, and data used to determine heat content.
 - d. Records of quality assurance and quality control activities for emissions measuring systems including, but not limited to, any records required by 40 CFR Part 60, Appendix F, Procedure 1.
 - e. Records of all major maintenance activities conducted on emission units, air pollution control equipment, and CEMS.
 - f. Any other records identified in 40 CFR 60.49b(g) or 40 CFR Part 60, Appendix F, Procedure 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))**

See Appendix 8-1

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. SV13024S	84 ²	161 ²	R 336.1901 40 CFR 52.1183(i)

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).

**EUCS14 - Chip Thickness Screening
 EMISSION UNIT CONDITIONS**

DESCRIPTION

The Chip Thickness Screening System (EUCS14) includes #1 Chip Reclaim Surge Bin, #2 Chip Reclaim Surge Bin, Air Density Separator #1A, Air Density Separator #1B, Air Density Separator #2A, Air Density Separator #2B.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

#1 Chip Reclaim Cyclone, #2 Chip Reclaim Cyclone, Air Density Separator Cyclone #1A, Air Density Separator Cyclone #1B, Air Density Separator Cyclone #2A, Air Density Separator Cyclone #2B

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM*	0.0075 gr/dscf ²	Hourly	EUCS14	SC V.1	R 336.1201 R 336.1331
2. PM	5.58 pph ²	Hourly	EUCS14	SC V.1	R 336.1201 R 336.1331
3. PM-10*	0.0044 gr/dscf ²	Hourly	EUCS14	SC V.1	R 336.1201 R 336.1331
4. PM-10	3.29 pph ²	Hourly	EUCS14	SC V.1	R 336.1201 R 336.1331

* The PM or PM-10 concentrations shall be determined as the weighted average, based on the total average exhaust flowrate at dry standard conditions, of the PM or PM-10 concentrations for each of the six cyclone dust collectors used in the process. The concentration and flow rate for each cyclone are average measured values determined in accordance with an approved stack testing methodology.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUCS14 unless the cyclone dust collectors are operating properly.² (R 336.1201, R 336.1910)

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 PM emission rates from EUCS14 by testing at the owner's expense, in accordance with the Department requirements. The hourly emission rate shall be determined by the average of three test runs per the method requirements. Testing shall be performed using an approved USEPA Method listed 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol and must meet the

requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall verify the PM emission rates from EUCS14 at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall visually inspect and record observations of emissions from the cyclone exhausts while the process is operating. These inspections shall be conducted on a weekly basis, or in accordance with an alternate schedule approved by the AQD. **(R 336.1213(3))**

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The air cleaning devices shall be maintained and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law. The permittee shall carry out an Inspection and Maintenance Program, including keeping of records of inspections done, problems found, repairs done, and/or corrective action taken. ² **(R 336.1301, R 336.1331, R 336.1910, R 336.1213(3))**

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).

**EU2PD40 - Pulp Dryer
EMISSION UNIT CONDITIONS**

DESCRIPTION

The #2 Pulp Dryer System (EU2PD40) is comprised of a pulp make down system and a pulp dryer.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. On an annual basis, the permittee shall calculate and report the actual emissions of each regulated air pollutant as defined in Rule 212(6) for EU2PD40 utilizing the emissions inventory forms provided by the Department. (R 336.1212(6), R 336.1213(3))

VII. REPORTING

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

See Appendix 8-1

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).

EUCOND - Condensate Collection and Treatment EMISSION UNIT CONDITIONS
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DESCRIPTION

The Condensate Collection and Treatment System (EUCOND) is a grouping of equipment used to collect and treat kraft pulping process condensates, and which are subject to the Standards For Kraft Pulping Process Condensates 40 CFR 63.446. The regulated equipment systems are identified in 40 CFR 63.446(b).

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Closed collection system. Foul condensates are collected at the stripper column feed tank. Foul condensate treatment consists of pre-treatment through a steam stripper (see Steam Stripper System table) and final treatment at the brownstock washers (see Brownstock System table).

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The pulping process condensates from the regulated equipment systems identified in 40 CFR 63.446(b) shall be treated to meet the requirements specified in 40 CFR 63.446(c), (d)(e). **(40 CFR 63.446(b))**
2. One of the following combinations of HAP-containing pulping process condensates generated (measured as methanol), produced, or associated with the equipment listed in 40 CFR 63.446(b) shall be subject to the requirements of 40 CFR 63.446(d)(e): **(40 CFR 63.446(c))**
 - a. All of the pulping process condensates from the equipment systems specified in 40 CFR 63.446(b)(1) through (b)(5). **(40 CFR 63.446(c)(1))**
 - b. The combined pulping process condensates from the equipment systems specified in paragraphs 40 CFR 63.446(b)(4) and (b)(5), plus pulping process condensate stream(s) that in total contain at least 65% of the total HAP mass from the pulping process condensates from equipment listed in 40 CFR 63.446(b)(1) through (b)(3). **(40 CFR 63.446(c)(2))**
 - c. The pulping process condensates from equipment systems listed in 40 CFR 63.446(b)(1) through (b)(5) that in total contain a total HAP mass of 11.1 pounds or more of total HAP per ton of oven-dried pulp, based upon a 15-day rolling average. **(40 CFR 63.446(c)(3))**
3. The pulping process condensates from the equipment systems shall be conveyed in a closed collection system that is designed and operated to meet the requirements specified in 40 CFR 63.446(d)(1) and (d)(2). **(40 CFR 63.446(d))**
4. Each pulping process condensate from the equipment systems listed in 40 CFR 63.446(b) shall be treated according to one of the following options: **(40 CFR 63.446(e))**
 - a. Recycle the pulping process condensate to an equipment system specified in 40 CFR 443(a) meeting the requirements specified in 40 CFR 63.443(c) or (d); or **(40 CFR 63.446(e)(1))**
 - b. Discharge the condensate below the liquid surface of a biological treatment system meeting the requirement specified in 40 CFR 63.446(e)(3); or **(40 CFR 63.446(e)(2))**

- c. Treat the pulping process condensate to reduce or destroy the total HAPs by at least 92% or more by weight; or **(40 CFR 63.446(e)(3))**
- d. Treat the pulping process condensates to remove 10.2 pounds or more of total HAP per ton of oven-dried pulp, based upon a 15-day rolling average, or achieve a total HAP concentration of 330 parts per million or less by weight at the outlet of the control device. **(40 CFR 63.446(e)(5))**

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 follow applicable test requirements, methods, and procedures as specified in 40 CFR Part 63, Subparts A and S. **(40 CFR 63.7, 40 CFR 63.457, R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall comply with applicable monitoring and recordkeeping provisions as specified in 40 CFR Part 63, Subpart S. **(40 CFR 63.453, 40 CFR 63.454, R 336.1213(3))**

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
- 4. The permittee shall comply with applicable reporting requirements as specified in 40 CFR Part 63, Subpart S. **(40 CFR 63.455, R 336.1213(3))**
- 5. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

- 1. The permittee must comply with the applicable requirements of 40 CFR Part 63, Subpart A – General Provisions, as indicated in 40 CFR Part 63, Table 1 to Subpart S – General Provisions Applicability to Subpart S. **(40 CFR 63.440(g))**
- 2. The permittee shall comply with the inspection requirements for each closed collection system used to comply with 40 CFR 63.446 requirements as specified in 40 CFR 63.453(k). **(40 CFR 63.453(k))**

**EURF15 - Chemical Recovery Furnace
 EMISSION UNIT CONDITIONS**

DESCRIPTION

The Chemical Recovery Furnace is used to regenerate chemicals used in the Kraft pulping process. The #10 Recovery Furnace burns black liquor, natural gas, #6 fuel oil, and used oil. Also, the #10 Recovery Furnace receives and incinerates gases from enclosures and closed-vent systems and is used to incinerate High Volume Low Concentration (HVLC) non-condensable gases from the Digester System, Brownstock System, Evaporator System, and Chemical Recovery Furnace System. The air handling system has been modified.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Electrostatic precipitator on #10 Recovery Furnace to control particulate

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Arsenic	0.004 mg/m ³ corrected to 70°F and 29.92 inches Hg ¹	Continuous	EURF15 while burning used oil and/or blend fuel oil	SC V.3	R 336.225, R 336.1901
2. Cadmium	0.038 mg/m ³ corrected to 70°F and 29.92 inches Hg ¹	Continuous	EURF15 while burning used oil and/or blend fuel oil	SC V.3	R 336.225, R 336.1901
3. Carbon Monoxide (CO)	2000 ppm by volume, based upon a one-hour average ²	Hourly	EURF15	SC V.1	R 336.1201, R 336.2804
4. CO	1424 pph, based upon a one-hour average ²	Hourly	EURF15	SC V.1	R 336.1201, R 336.2804
5. CO	800 ppm by volume, based upon an eight-hour average ²	8-Hour Average	EURF15	SC V.1	R 336.1201, R 336.2804
6. CO	570 pph, based upon an eight-hour average ²	8-Hour Average	EURF15	SC V.1	R 336.1201, R 336.2804
7. Chromium	0.016 mg/m ³ corrected to 70°F and 29.92 inches Hg ¹	Continuous	EURF15 while burning used oil and/or blend fuel oil	SC V.3	R 336.225, R 336.1901

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
 Expiration Date: September 22, 2026
 PTI No: MI-PTI-A0884-2021b

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
8. HAP Metals measured as PM	0.044 gr/dscf, corrected to 8% oxygen ^{2,**}	Hourly	EURF15	SC V.4	40 CFR 63.861, 40 CFR 63.862 (a)(1)(i)(A), 40 CFR 63.865(b), 40 CFR 63.862 (a)(1)(ii), 40 CFR 63.865(a), 40 CFR 63.865(b)
9. NOx	400 ppm by volume ²	Hourly	EURF15	SC V.1	R 336.1201, R 336.2803, R 336.2804
10. NOx	468 pph ²	Hourly	EURF15	SC V.1	R 336.1201, R 336.2803, R 336.2804
11. PM	0.033 gr/dscf corrected to 8% oxygen ^{2,***}	Hourly	EURF15	SC V.1	R 336.1201, R 336.1331
12. PM	60.5 pph ^{2,**}	Hourly	EURF15	SC V.1	R 336.1201, R 336.1331
13. Polychlorinated Biphenyls	0.014 mg/m ³ corrected to 70°F and 29.92 inches Hg ¹	Continuous	EURF15 while burning used oil and/or blend fuel oil	SC V.3	R 336.225, R 336.1901
14. SO ₂	250 ppm by volume ²	Hourly	EURF15	SC V.2	R 336.1201, R 336.2803, R 336.2804
15. SO ₂	407 pph ²	Hourly	EURF15	SC V.2	R 336.1201, R 336.2803, R 336.2804
16. Total Reduced Sulfur	5 ppm corrected to 8% oxygen on a 12-hour average ²	12-Hour Average	EURF15	SC VI.2	R 336.1201, R 336.1225, 40 CFR 60.283
17. Total Reduced Sulfur	5.6 pph ² corrected to 8% oxygen on a 12-hour average ²	12-Hour Average	EURF15	SC VI.2	R 336.1201
18. Visible Emissions	20%, except for one 6-minute average per hour of not more than 27%.	6-Minute Average	EURF15	SC VI.3	R 336.1301(1)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
<p>** The permittee shall comply with the emission limits specified in one of the following options as provided in 40 CFR Part 63, Subpart MM:</p> <ul style="list-style-type: none"> a. The Particulate Matter (PM) concentration in the EURF15 exhaust gases shall not exceed 0.044 gr/dscf, corrected to 8% oxygen. OR b. Alternative PM emission limits established for each existing recovery furnace, smelt dissolving tank, and lime kiln that operates 6,300 hours per year or more as provided under 40 CFR 63.862(a)(1)(ii), subject to the limitations specified. <p>*** The permittee may petition the Department for an alternate particulate limit up to, but not exceeding, 0.044 gr/dscf of exhaust gases corrected to 8% oxygen. Such alternate particulate emission limit shall not be established by the Department unless the Department is reasonably convinced of all the following:</p> <ul style="list-style-type: none"> a. All reasonable measures to reduce particulate emissions have been implemented or will be implemented in accordance with a schedule approved by the Department. b. Compliance with the original particulate emission limit is either technically or economically unreasonable. c. The requested alternate particulate limit is the limit that reflects the level of emission that can be reasonable achieved on a consistent basis. 					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Used Oil	The concentration of the following materials in the used oil shall not exceed the limits specified below: ¹ a. Arsenic: 4 ppmw b. Cadmium: 2 ppmw c. Chromium: 10 ppmw d. Lead: 25 ppmw e. Total Halogens: 300 ppmw f. Polychlorinated Biphenyls: 3 ppmw	Annual Test	EURF15	SC VI.9	R 336.1225 R 336.1901
2. Used Oil	The minimum flash point temperature of the used oil burned in the EURF15 shall be greater than 100°F. ¹	Annual Test	EURF15	SC VI.9	R 336.1225 R 336.1901
3. Used Oil	Not to exceed 15% of the total feed rate of the fuel oil blend ¹	As defined in Testing/Sampling	EURF15	SC VI.8	R 336.1225 R 336.1901

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The EURF15 operating load shall be reduced to 77,600 pounds of Black Liquor Solids (BLS) per hour if any two electric fields of the electrostatic precipitator are placed out of service. Return to operation exceeding 77,600 pounds of solids per hour shall not commence unless the two fields are returned to service.² (**R 336.1201, R 336.1331, R 336.1910, R 336.2803, R 336.2804**)

2. The EURF15 operating load shall be reduced to 77,600 pounds of BLS per hour if any one of the two chambers of the electrostatic precipitator are down for maintenance, during which all other ESP fields are operating in the active chamber. Return to operation exceeding 77,600 pounds of solids per hour shall not commence unless the other chamber of the electrostatic precipitator is returned to service.² **(R 336.1201, R 336.1331, R 336.1910, R 336.2803, R 336.2804)**

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 the modification to the air system unit, the permittee shall verify carbon monoxide, nitrogen oxides, and particulate emission rates from EURF15 by testing at owner's expense, in accordance with Department requirements. Once every five-year period thereafter, the permittee shall verify the emission rates from the EURF15 by testing, to determine compliance with the emission limits specified in Section I. The permittee shall submit a complete test protocol to the AQD for approval at least 30 days prior to the anticipated test date. The permittee shall notify the AQD no less than 7 days prior to the anticipated test date. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Program Unit and one to the district office, within 60 days following the last date of the test.² **(R 336.1205, R 336.1299, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, 40 CFR 60.285(d))**
2. The permittee shall verify sulfur dioxide (SO₂) rates from EURF15 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. The permittee shall submit a complete test protocol to the AQD for approval at least 30 days prior to the anticipated test date. The permittee shall notify the AQD no less than 7 days prior to the anticipated test date. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Program Unit and one to the district office, within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. If the permittee burns used oil and/or blend fuel oil during sustained operation of the EURF15, the permittee shall verify arsenic, cadmium, chromium, and polychlorinated biphenyls emissions from the EURF15 by testing at owner's expense, in accordance with Department requirements. Once within five years of permit issuance, and once every five-year period thereafter, or if the permittee subsequently burns used oil and/or blend fuel oil, the permittee shall verify the rates from the EURF15, by testing, to determine compliance with the emission limit specified in SC I. The permittee shall submit a complete test protocol to the AQD for approval at least 30 days prior to the anticipated test date. The permittee shall notify the AQD no less than 7 days prior to the anticipated test date. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Program Unit and one to the district office, within 60 days following the last date of the test.² **(R 336.1224, R 336.1225, R 336.1299, R 336.2001, R 336.2003, R 336.2004)**
4. The permittee shall conduct performance tests for Particulate Matter per the applicable performance test requirements and test methods specified in 40 CFR Part 63, Subpart A and MM.² **(40 CFR 63.7, 40 CFR 63.865)**
5. Performance tests shall be conducted according to procedures and test methods specified or approved by the AQD. Not less than 30 days prior to testing, a testing plan shall be submitted to the AQD for review.² **(R 336.2001, R 336.2003)**
6. The permittee shall verify the CO, NO_x, SO₂, and PM emission rates from EURF15, 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 and make them available by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205, R 336.1301, R 336.1331, R 336.1901, R 336.1910, R 336.2803, R 336.2804)**
2. The permittee shall monitor and record the oxygen content, opacity, and total reduced sulfur of the exhaust gases from EURF15 on a continuous basis in a manner and with instrumentation acceptable to the AQD. The TRS monitoring shall utilize the quality assurance/quality control activities of 40 CFR Part 60, Appendix F, Procedure 1 as a guideline. Daily calibrations shall be conducted in accordance with 40 CFR Part 60, Appendix F, Procedure 1 Section 4. A cylinder gas audit shall be conducted once each calendar quarter in accordance with 40 CFR Part 60, Appendix F, Procedure 1 Section 5.1.2 in lieu of performing a relative accuracy test audit.² **(R 336.1201, 40 CFR 60.284)**
3. The permittee shall install, calibrate, maintain, and operate a COMS according to the provisions in 40 CFR 63.6(h) and 63.8.² **(40 CFR 63.864(d))**
4. The permittee shall monitor and record the black liquor feed rate to EURF15 on a continuous basis in a manner and with instrumentation acceptable to the AQD.² **(R 336.1201, R 336.1331)**
5. The permittee shall monitor the electric current and/or voltage supplied to the twelve fields of the electrostatic precipitator on a continuous basis and in a manner and with instrumentation acceptable to the AQD.² **(R 336.1201, R 336.1910)**
6. The permittee shall monitor and record all occurrences when two fields of the electrostatic precipitator are taken out of service as specified under Operational Parameters below, the duration of each occurrence, and the black liquor solids firing rate during each occurrence.² **(R 336.1910)**
7. The permittee shall keep a log of #6 fuel oil deliveries including date of delivery, quantity of #6 fuel oil received, and an analysis of the #6 fuel oil.¹ **(R 336.1225, R 336.1901)**
8. The permittee shall keep a record of the percentage of used oil in the fuel oil blend burned in the Recovery Furnace to determine compliance with the 15 percent limitation specified under Material Limits above.¹ **(R 336.1225, R 336.1901)**
9. An annual analysis of the used oil prior to transferring the used oil to the one million gallon #6 fuel oil storage tank shall be conducted to determine compliance with the material limits specified under Material Limits above.¹ **(R 336.1225, R 336.1901)**
10. Within 30 days after written notification by the AQD, the permittee shall submit an analysis of the used oil and blend fuel oil fired in EURF15.¹ **(R 336.1901)**
11. The permittee shall implement corrective action when the average of ten consecutive 6-minute averages result in a measurement greater than 20 percent opacity.² **(40 CFR 63.864(k)(1)(i))**
12. The source will be considered in violation of the standards of 40 CFR 63.862 if opacity is greater than 35% for 2% or more of the operating time in any semiannual period as specified in and 40 CFR 63.864(k)(2).² **(40 CFR 63.864(k)(2)(i))**
13. As specified in 40 CFR 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.² **(40 CFR 63.864(d)(3))**
14. The COMS data must be reduced as specified in 40 CFR 63.8(g)(2).² **(40 CFR 63.864(d)(4))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**
5. Quarterly reporting of TRS continuous monitoring system performance and excess TRS emissions from the EURF15 as specified in Notification and Record Keeping, 40 CFR Part 60, Subpart A.² **(40 CFR 60.7(c))**
6. Semiannual reporting of excess emissions of opacity from the EURF15 as specified in 40 CFR Part 60, Subpart BB. Due March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.² **(40 CFR 60.284(d)(1))**
7. The permittee shall submit the applicable notifications and reports specified in 40 CFR 63.9 and 40 CFR 63.10. The permittee shall submit a quarterly excess emissions report if measured parameters meet any of the Conditions specified in 40 CFR 63.864(k)(1). When no exceedances of parameters have occurred, permittee shall submit a semiannual report stating that no excess emissions occurred during the reporting period.² **(40 CFR 63.867)**
8. 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. 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))**
9. 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))**
10. The permittee shall submit two complete test reports 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))**

See Appendix 8-1

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. SV51001S	156 ²	284 ²	R 336.1225 R 336.2803 R 336.2804 40 CFR 52.21 (c)(d)

IX. OTHER REQUIREMENT(S)

1. The air cleaning devices shall be maintained and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law. The permittee shall carry out an Inspection and Maintenance Program, including keeping of records of inspections done, problems found, repairs done, and/or corrective action taken.² **(R 336.1301, R 336.1331, R 336.1910)**
2. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart A – General Provisions which are identified in 40 CFR Part 63, Table 1 to Subpart MM – General Provisions Applicability to Subpart MM.² **(40 CFR 63.860(c))**

Footnotes:

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

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

**EUST15 - Smelt Dissolving Tank
 EMISSION UNIT CONDITIONS**

DESCRIPTION

The Smelt Dissolving Tank (EUST15) is used to regenerate chemicals used in the kraft process. The Smelt Dissolving Tank receives smelt from the # 10 Recovery Furnace, which it mixes with weak wash to generate green liquor that is transported to the Recausticizing System.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Wet scrubber and mist eliminator on EUST15.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. HAP Metals measured as PM*	0.20 lb per ton of black liquor solids fired	Hourly	EUST15	SC V.1	40 CFR 63.862(a)(i)(B) 40 CFR 63.865(b)
2. PM	0.15 lb/1000 lbs of exhaust gases calculated on a dry gas basis ²	Hourly	EUST15	SC V.1 SC V.2	R 336.1201 R 336.1331 40 CFR 52.21
3. Total Reduced Sulfur (TRS)	0.0084 gr/kg of black liquor solids ²	12-hour average	EUST15	SC V.1 SC V.2	R 336.1201 40 CFR 52.21

* Alternate Particulate Matter (PM) emission limits may be established for each existing recovery furnace, smelt dissolving tank, and lime kiln that operates 6,300 hours per year or more as provided under 40 CFR 63.862(a)(1)(ii), subject to limitations specified. ² (40 CFR 63.862(a)(1)(ii), 40 CFR 63.865(a), 40 CFR 63.865(b))

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

- The permittee shall verify particulate matter and Total Reduced Sulfur emission rates from EUST15 by testing at owner's expense, in accordance with the Department requirements. The hourly emission rate shall be determined by the average of three test runs per the method requirements. Testing shall be performed using an approved USEPA Method listed in:

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

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

2. The permittee shall verify the PM and TRS emission rates from EUST15, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. **(R 336.1213(3))**
4. Permittee shall conduct performance tests for particulate matter per the applicable performance test requirements and test methods specified in 40 CFR Part 63, Subpart A and MM. **(R 336.1213(3), 40 CFR 63.7, 40 CFR 63.865)**

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 install, calibrate, maintain and operate a continuous monitoring system to measure fan run status and the scrubbing liquid flow rate at least once every successive 15-minute period using the procedures in 40 CFR 63.8. **(40 CFR 63.864(e)(10), 40 CFR 60.13(a), 40 CFR 63.8(b)(1))**
2. The minimum scrubber liquid flow rate established during the most recent performance test approved by the Administrator shall be used as an indicator of proper operation of the scrubber. **(40 CFR 63.864(i))**
3. The permittee shall maintain operating parameters within the range established according to 40 CFR 63.864(i). The source will be considered in violation of the standards in 40 CFR 63.862 if six or more 3-hour average parameter values within any semi-annual reporting period are outside the established operating range, at all times except during periods of startup and shutdown. No more than one exceedance will be attributed to any 24-hour period. **(40 CFR 63.864(k)(2)(iii), 40 CFR 63.864(k)(3))**
4. The permittee shall implement corrective action when any 3-hour average parameter value is outside the range of values established as provided in 40 CFR 63.864(l). **(40 CFR 63.864(k)(1)(ii))**
5. The permittee shall maintain the records specified in 40 CFR 63.866(b) and (c) in addition to the record keeping requirements of 40 CFR 63.10(b)(2). **(40 CFR 63.866(b)-(c))**
6. The monitoring device used for continuous measurement of the scrubbing liquid flow rate must be certified by the manufacturer to be accurate within ±5 percent of the design scrubbing liquid flow rate. **(40 CFR 63.864(e)(10)(ii))**

VII. REPORTING

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

Section 1 – Billerud Escanaba LLC

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**
5. The permittee shall submit the applicable notifications and reports specified in 40 CFR 63.9 and 40 CFR 63.10. The permittee shall submit a quarterly excess emissions report if measured parameters meet any of the conditions specified in 40 CFR 63.864(k)(2). When no exceedances of parameters have occurred, permittee shall submit a semiannual report stating that no excess emissions occurred during the reporting period. **(40 CFR 63.867)**

See Appendix 8-1

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. SV15007S	48 ²	288 ²	R 336.1901 40 CFR 52.21

IX. OTHER REQUIREMENT(S)

1. The air cleaning devices shall be maintained and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law. The permittee shall carry out an Inspection and Maintenance Program, including keeping of records of inspections done, problems found, repairs done, and/or corrective action taken.² **(R 336.1301, R 336.1910, R 336.1213(3))**
2. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart A – General Provisions which are identified in 40 CFR Part 63, Table 1 to Subpart MM – General Provisions Applicability to Subpart MM. **(40 CFR 63.860(c))**

Footnotes:

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

**EUS29 - Recausticizing System
 EMISSION UNIT CONDITIONS**

DESCRIPTION

The Recausticizing System has one emission unit: Lime Slaker (EUS29). In the slaker, calcium oxide from the Lime Kiln System (FGLK29) reacts with green liquor from the Smelt Dissolving tank (EUST15) to produce white liquor and lime mud. The reaction is carried out in the slaker and causticizers. The mixture is separated in two white liquor clarifiers. White liquor is used in the digesters as a cooking chemical. Lime mud is washed, dewatered and oxidized in the Lime Kiln System to regenerate calcium oxide for the slaking process.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Wet Scrubber

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	0.10 lb / 1000 lbs of exhaust gas measured at operating conditions ²	Hourly	EUS29	SC V.1 SC V.2	R 336.1331

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip the Lime Slaker scrubber with at least one of the following: **(R 336.1213(3), R 336.1910)**
 - a. Operable water pressure gauge
 - b. Operable water flow meter
 - c. Viewpoint with picoted cover or quick release hatch
 - d. Scrubber drain with readily visible sump to verify scrubber water flow

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 particulate matter emission rates from EUS29 by testing at the owner’s expense, in accordance with the Department requirements. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
Expiration Date: September 22, 2026
PTI No: MI-PTI-A0884-2021b

of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall verify the PM rates from EUS29, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall continuously monitor and record the scrubber liquid flow rate for a 3-hour average as an indicator of proper operation of the venturi scrubber. The indicator range is a minimum flow of 150 gallons per minute based on a 3-hour average or a range determined during the most recent performance test which shows compliance with the emission limit and approved by the AQD. **(40 CFR 64.6(c)(1)(i and ii))**
2. The flow monitor shall continuously monitor the scrubber liquid flow rate. The averaging period is 3-hours. The monitor shall be calibrated and maintained according to manufacturer's specifications and good engineering practice or annually, whichever is more frequent. **(40 CFR 64.6(c)(1)(iii))**
3. An excursion is a departure from the indicator range specified in SC VI.1. **(40 CFR 64.6(c)(2))**
4. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). The corrective actions are specified in facility's Title V Inspection and Maintenance (I&M) Plan. **(40 CFR 64.7(d))**
5. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**
6. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
7. 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. The permittee shall submit any performance test reports the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**
5. Each semiannual report of monitoring and deviations as specified under the CAM requirements shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**
6. Each semiannual report of monitoring deviations as specified under the CAM requirements shall include summary information on the number, duration, and cause of CAM exceedances/excursions in the reporting period; and the corrective actions taken in response. If there were no excursions/exceedances in the reporting period, then this report shall include a statement that there were no excursions/exceedances. **(40 CFR 64.9(a)(2)(i))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The air cleaning devices shall be maintained and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law. The permittee shall carry out an Inspection and Maintenance Program, including keeping of records of inspections done, problems found, repairs done, and/or corrective action taken. **(R 336.1301, R 336.1331, R 336.1910, R 336.1213(3))**
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 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).

**EUPB - Paint Spray Booth
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Maintenance Paint Spray Booth

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Dry exhaust filters.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Coatings	200 gallons as applied, minus water ²	Per month	EUPB	SC VI.1	R 336.1213(2)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall keep all dry exhaust filters in place whenever EUPB is in operation. (R 336.1213(2), R 336.1910)

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 a monthly record of the total quantity of coatings used in EUPB, as applied, minus water. (R 336.1213(3))

VII. REPORTING

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

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The air cleaning devices shall be maintained and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law. The permittee shall carry out an Inspection and Maintenance Program, including keeping of records of inspections done, problems found, repairs done, and/or corrective action taken. **(R 336.1301, R 336.1331, R 336.1910, R 336.1213(3))**

Footnotes:

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

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

D. FLEXIBLE GROUP SPECIAL CONDITIONS

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

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

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG9B03	The # 9 Boiler (EU9B03) is a Babcock & Wilcox boiler rated for 250,000 pounds of steam per hour (approximately 360 million BTU per hour heat input) that provides steam for mill processes and steam turbine-generators for producing electricity. The # 9 Boiler burns primarily wood residue, but may also burn natural gas, and paper cores. The Boiler 9 System (FG9B03) has two emission units, the Boiler 9 and Wood Residue Surge Bin (EUSB03). Controls include a multiclone and two wet scrubbers on the # 9 Boiler exhaust and a cyclone dust collector on Wood Residue Surge Bin.	EU9B03 EUSB03
FG11BFA	The Boiler 11 System Flexible group (FG11BFA), has eight emission units that are part of Boiler 11 (EU11B68) and the Boiler 11 Fuel and Ash Handling systems (multiple emission units). The Boiler 11 is an ABB Combustion Engineering combination fuel boiler rated for 750,000 pounds of steam per hour (approximately 1040 million BTU per hour heat input) that provides steam for mill processes and steam turbine-generators for producing electricity. The Boiler 11 burns natural gas and solid fuels, which include pulverized coal, wood residue, wastewater treatment plant residuals, TDF, and non-hazardous secondary material (NHSM) pellets. The Boiler 11 Fuel and Ash Handling System (FGFAHS68) includes the following emission units: Coal Handling (EUCH68), Fuel Handling including wood residue, wastewater treatment plant residuals, pellet fuel, and TDF (EUFH68), #1 Coal Silo (EU1S68), #2 Coal Silo (EU2S68), #3 Coal Silo (EU3S68), #1 Ash Silo (EU1AS68), and #2 Ash Silo (EU2AS68). Controls include: Individual Baghouses on #1, #2, and #3 Coal Silos; Baghouse on #2 Ash Silo; Pugmills for wetting ash from #1 and #2 Ash Silos prior to loading into trucks for disposal.	EU11B68 EUCH68 EUFH68 EU1S68 EU2S68 EU3S68 EU1AS68 EU2AS68

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGSB14	The Chip Surge Bin System (FGSB14) has two emission units: #1 Chip Surge Bin (EU1SB14) and #2 Chip Surge Bin (EU2SB14). Controls include the #1 Chipper Cyclone and the #2 Chipper Cyclone.	EU1SB14 EU2SB14
FGRMP	The Refiner Mechanical Pulping System (FGRMP) has three emission units: the Chip Silo (EUCS61), the Chip Surge Bin (EUSB61), and Refiner Mechanical Pulping (EURMP61). Controls include a Chip Silo Cyclone and a Chip Surge Bin Cyclone.	EUCS61 EUSB61 EURMP61
FGPAPER	Paper Machine Systems (FGPAPER) includes the #1 Paper Machine (EU1PM32) and associated stock preparation equipment, the #3 Paper Machine (EU3PM07) and associated stock preparation equipment and the #4 Paper Machine (EU4PM64) and associated preparation equipment.	EU1PM32 EU3PM07 EU4PM64
FGCOATER	The Paper Machine Coaters (FGCOATER) includes 3 emission units: the #1 Coater (EU1C36), the #3 Coater (EU3C27), and the #4 Coater (EU4C65). These coaters are subject to 40 CFR Part 63, Subpart JJJJ.	EU1C36 EU3C27 EU4C65
FGSTARCH	Paper Machine and Coater Dry Starch Systems (FGSTARCH) include equipment for the handling and make down of starch for the paper machines and coaters: The #1 Coater Dry Starch System equipment (EUSS43) includes #1 and #2 Starch Silo, #1 and #2 Starch Day Bins, and #1 and #2 Starch Wet Out Tanks. The #3 Paper Machine Dry Starch System equipment includes #1 Starch Silo (EU1SS08) and the #1 Starch Make down Tank (EU1M08). The #3 Coater Dry Starch System includes the #2 Starch Silo (EU2SS08), #3 Starch Silo (EU3SS08), and #2 Starch Make down Tank (EU2M08). The #4 Coater System includes Starch Storage (EUSS66) consisting of #1 and #2 Starch Silos. For the #1 Coater Dry Starch System, Individual baghouse dust collectors serving #1 and #2 Starch Silos, common baghouse serving #1 and #2 Starch Day Bins, and common baghouse serving #1 and #2 Starch Wet Out Tanks. For the #3 Paper Machine, baghouse dust collectors serve #1 Starch Silo and #1 Starch Make down Tank. For the #3 Coater Dry Starch System, baghouse dust collectors serve the #2 Starch Silo, #3 Starch Silo, and #2 Starch Make down Tank. For the #4 Coater System, Individual baghouse dust collectors serve the #1 and #2 Starch Silos.	EUSS43 EU1SS08 EUIM08 EU2SS08 EU3SS08 EU2M08 EUSS66

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGBBKRAFT	<p>Kraft Pulp Mill Subpart BB Systems (FGBBKRAFT) include the following: The Digester System (EUBB22) consists of batch digesters, blow tanks, and a blowheat condensing system. The Brownstock System (EUBB23) processes brown pulp from the digester blow tanks and includes the knotters, brownstock washers, and associated vacuum pumps and filtrate tanks. The Brownstock System is used for final treatment of Kraft pulping process condensates regulated under the Standards for Kraft Pulping Process Condensates 40 CFR 63.446 (see EUCOND - Condensate Collection and Treatment System). The Steam Stripping System (EUBB33) consists of a steam stripper column and reflux condenser used to strip total reduced sulfur (TRS) compounds from condensate streams from various processes in the Kraft pulp mill. The Steam Stripping System is also used to pre-treat kraft pulping process condensates regulated under the Standards for Kraft Pulping Process Condensates 40 CFR 63.446 (see EUCOND - Condensate Collection and Treatment System). The Evaporator System (EUBB05) consists of a multiple-effect evaporator and associated condensers and hotwell used to concentrate the spent cooking liquid that is separated from the pulp (black liquor). Gases from the EUBB22 Digester System, the EUBB33 Steam Stripping System, and the EUBB05 Evaporator System are routed to the EULVHC closed vent gas collection system and destroyed in the Thermal Oxidizer (EUOC33) or the Lime Kiln (EULK15) as a backup. Gases from the EUBB23 Brownstock System and the EUBB22 Digester System digester domes and capping valves are routed to the EUHVLC closed vent gas collection system and destroyed in Chemical Recovery Furnace (EURF15).</p>	<p>EUBB22 EUBB23 EUBB33 EUBB05</p>
FGLVHC	<p>The LVHC System (FGLVHC) consists of a collection of equipment regulated by 40 CFR Part 63, Subpart S including the digesters, turpentine recovery, evaporator, steam stripping system, and associated equipment which vent to the LVHC gas collection system. Emission Units include: Evaporator NSPS Devices (EUBB05), Digester Other Devices (EUOT22), Digester NSPS Devices (EUBB22), and Miscellaneous Turpentine Handling Devices (EUMT22), Steam Stripping NSPS Devices (EUBB33) and Miscellaneous Condensate Stripping System Devices (EUMC33). LVHC gases from FGLVHC are collected in a closed vent collection system and incinerated in the Thermal Oxidizer (EUOC33) or the Lime Kiln (EULK15) as a backup incineration device.</p>	<p>EUBB05 EUOT22 EUBB22 EUMT22 EUBB33 EUMC33</p>

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGHVLC	The HVLC System (FGHVLC) consists of a collection of equipment regulated by 40 CFR Part 63, Subpart S including the following: knotters, brownstock washers, brownstock filtrate tanks, digester fugitive gases, and black liquor storage and processing tanks. Emission Units include: EUBB22 digester capping valves, Brownstock NSPS Devices (EUBB23) and Miscellaneous Evaporator System Devices (EUME05). HVLC gases from FGHVLC are collected in a closed vent system and destroyed in the Chemical Recovery Furnace (EURF15).	EUBB22 EUBB23 EUME05
FGTO33	The Thermal Oxidizer System (FGTO33) includes two emission units: The Thermal Oxidizer (EUOC33), which is a dedicated incineration device for gases from the EULVHC System and the Soda Ash Storage Tank (EUSA33). Exhaust from the Thermal Oxidizer (EUOC33) is routed through a packed scrubber which utilizes a soda ash scrubbing solution to control sulfur dioxide emissions.	EUOC33 EUSA33
FGB25	The Bleaching System (FGB25) has four emission units: Bleaching Equipment (EUS25) which includes the bleaching stage equipment where chlorine dioxide is applied and removed. the Chlorine Dioxide Plant (EUB25S1), Extraction Devices (EUED25), and Methanol Storage (EUM25). The Bleaching System is used to whiten Brownstock pulp for papermaking. Bleaching is accomplished through the use of chemicals, bleaching towers, extraction towers, and washers. Chlorine dioxide is used for bleaching and is manufactured on site. Gases from the pulp bleaching stages are routed in a closed vent collection system to the Bleach Plant Scrubber System which consists of two packed scrubbers in series. Off-gases from the chlorine dioxide generator and storage tanks are scrubbed with chilled water in a tail gas scrubber prior to being scrubbed in the Bleach Plant Scrubber system.	EUS25 EUB25 EUED25 EUM25
FGLK29	The Lime Kiln System (FGLK29) includes the Lime Kiln (EULK29) and two Lime Storage Bins (EULKI29), one for hot lime storage, one for purchased lime storage. The Lime Kiln is fired with natural gas and/or fuel oil. Also, the Lime Kiln is a backup incineration device for the Thermal Oxidizer System. Controls include a venturi scrubber and mist eliminator on the Lime Kiln and common baghouse dust collector on the Lime Storage Bins.	EULK29 EULKI29
FGSIRICE	The Spark Ignition Emergency Engine Group (FGSIRICE) consists of 2 spark ignition engines: The Lime Kiln Emergency Drive Motor (EULKSIRICE) and the EOC Back-up Generator (EUEOCSIRICE). The engines are used to provide mechanical work or power a generator in emergency situations. Both engines are 4 stroke lean burn <250 HP.	EULKSIRICE EUEOCSIRICE

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGCIRICE	The Compression Ignition Emergency Engine Group (FGCIRICE) consists of 4 compression ignition engines: the E1 Emergency Lift Pump (EUE1CIRICE), the Water Treatment Building Emergency Fire Water Pump (EUFW1CIRICE), the Administrative Building Emergency Fire Water Pump (EUFW2CIRICE), and the Turbine Turning Gear Back-up Generator (EUTTGCIRICE). The engines are used to provide mechanical work and to power pumps (e.g., fire water pump).in emergency situations. All engines are 4 stroke lean burn <250 HP.	EUE1CIRICE EUFW1CIRICE EUFW2CIRICE EUTTGCIRICE
FGBMACTB09B11	Requirements for existing boiler(s) and process heater(s) that are designed with air distributors to spread the fuel material over the entire width and depth of the boiler combustion zone. The biomass fuel combusted in these units exceeds a moisture content of 40 percent on an as-fired annual heat input basis as demonstrated by monthly fuel analysis. The drying and much of the combustion of the fuel takes place in suspension, and the combustion is completed on the grate or floor of the boiler.	EU9B03 EU11B68
FGBMACTB07B08	Requirements for existing boiler(s) and process heater(s) that are designed to burn gas 1 subcategory fuel with a heat input capacity of 10 MMBTU/hr or greater at major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). Units designed to burn gas 1 subcategory fuels include boilers or process heaters that burn only natural gas, refinery gas, and/or Other Gas 1 fuels. Units that burn liquid fuel for testing or maintenance purposes for less than a total of 48-hours per year, or that burn liquid fuel during periods of curtailment or supply interruptions are included in this definition.	EU7B17 EU8B13

**FG9B03 - Boiler 9 System
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

The Boiler 9 System (FG9B03) has two emission units, the Boiler 9 and Wood Residue Surge Bin (EUSB03). The Boiler 9 (EU9B03) is a Babcock & Wilcox boiler rated for 250,000 pounds of steam per hour (approximately 360 million BTU per hour heat input) that provides steam for mill processes and steam turbine-generators for producing electricity. The Boiler 9 burns primarily wood residue, but may also burn natural gas, and paper cores.

Emission Units: EU9B03, EUSB03

Flexible Group: FGBMACTB09B11

POLLUTION CONTROL EQUIPMENT

Multiclone and two wet scrubbers (North and South) on the Boiler 9 exhaust; Cyclone dust collector on Wood Residue Surge Bin.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx*	Limits specified in Table 81 of Rule 801 ¹	Ozone Season	EU9B03	SC VI.3	R 336.1801
2. NOx	0.27 lb/MMBtu ²	Hourly	EU9B03	SC V.3	40 CFR 52.1183(i)
3. PM	0.50 lb / 1000 lbs exhaust gases, corrected to 50% excess air**	If the wood residue heat input is > 75% of the total heat input to the boiler/ Hourly	EU9B03	SC V.1	R 336.1201 R 336.1331
4. PM	The fraction of total heat input from the wood residue times 0.67 lb / 1000 lbs exhaust gases, corrected to 50% excess air**	If the wood residue heat input is ≤ 75% of the total heat input to the boiler/Test Protocol Hourly	EU9B03	SC V.1	R 336.1201 R 336.1331
5. PM	0.10 lb / 1000 lbs exhaust gases**	Hourly	EUSB03	SC IX.1	R 336.1331

* During years when the boiler meets the definition of a fossil fuel fired emission unit per the definition in R 336.1801(1)(b)¹

** Measured at operating conditions.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate EU9B03 while burning wood residue and/or paper cores unless the multiclone dust collector and two wet scrubbers are operating properly.² (**R 336.1201, R 336.1910**)

2. The permittee shall immediately cease wood residue input feed to EU9B03, consistent with safe operating procedures, upon initiation of scrubber bypass. During a scrubber bypass, the permittee shall burn only natural gas in EU9B03. Wood residue fuel input shall not be restarted until the scrubber is back online and functioning properly.² (R 336.1201, R 336.1331, R 336.1910)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip each wet scrubber with a pressure drop indicator and a flow meter. (R 336.1213(3))

V. TESTING/SAMPLING

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

1. The permittee shall verify PM emission rates from EU9B03 by testing at the owner’s expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)
2. The permittee shall verify the PM emission rates from EU9B03, at a minimum, every five years from the date of the last test. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. (R 336.1213(3))
4. The reference test method for assessing compliance with the limit in section I.2 shall be a test conducted in accordance with 40 CFR Part 60, Appendix A, Method 7. (40 CFR 52.1183(i))

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 quantities and respective BTU content, of natural gas, wood residue, and paper cores burned in the # 9 boiler. (R 336.1213(3))
2. By the date specified in the rule, applicable oxides of nitrogen monitoring and recordkeeping provisions as specified in Rule 801 shall be kept.¹ (R 336.1801)
3. The permittee shall continuously measure and record the pressure drop across the North and South scrubbers for a 3-hour average as an indicator of proper operation of the scrubbers. The indicator range for each scrubber is a minimum of 3 inches of water column (3 “WC) based on a 3-hour average or a range determined during the most recent performance test which showed compliance with the emission limits and approved by the AQD. (40 CFR 64.6(c)(1)(i and ii))
4. The permittee shall continuously monitor and record the scrubber liquid flow rate on the North and South scrubbers for a 3-hour average as an indicator of proper operation of the scrubbers. The indicator range for each scrubber is a minimum of 900 gallons per minute (GPM) based on a 3-hour average or a range determined during the most recent performance test which showed compliance with the emission limits and approved by the AQD. (40 CFR 64.6(c)(1)(i and ii))
5. The pressure gauge shall continuously monitor the pressure drop across the scrubber.. The averaging period is based on a three-hour averaging time. The monitor shall be calibrated annually or according to manufacturer’s specifications and/or good engineering practice whichever is more frequent. (40 CFR 64.6(c)(1)(iii))

6. The liquid flow meter gauge shall continuously monitor the scrubber liquid flow rate. The averaging period is based on a three-hour averaging time. The monitor shall be calibrated annually or according to manufacturer's specifications and/or good engineering practice whichever is more frequent. **(40 CFR 64.6(c)(1)(iii))**
7. An excursion for the pressure drop indicator is a departure from the indicator range specified in SC VI.3 and an excursion for the scrubber liquid flow rate indicator is a departure from the indicator range specified in SC VI.4. **(40 CFR 64.6(c)(2))**
8. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). The corrective actions are specified in facility's Title V Inspection and Maintenance (I&M) Plan. **(40 CFR 64.7(d))**
9. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**
10. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
11. 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))**
12. The owner/operator shall maintain all NOx stack test result records regarding Boiler 9 for at least five years. **(40 CFR 52.1183(i))**:
 - a. All stack test results.
 - b. Daily records of fuel usage, heat input, and data used to determine heat content.
 - c. Records of all major maintenance activities conducted on emission units and air pollution control equipment.
 - d. Any other records identified in 40 CFR 60.49b(g).

VII. REPORTING

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

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

See Appendix 8-1

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. SV03020S	84 ²	285 ²	R 336.1901 R 336.1801 40 CFR 52.1183(i)
2. SV03021S	84 ²	285 ²	R 336.1901 R 336.1801 40 CFR 52.1183(i)

IX. OTHER REQUIREMENT(S)

1. The air cleaning devices shall be maintained and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law. The permittee shall carry out an Inspection and Maintenance Program, including keeping of records of inspections done, problems found, repairs done and/or corrective action taken. **(R 336.1301, R 336.1331, R 336.1910, R 336.1213(3))**
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 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))**
4. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters, as specified in 40 CFR Part 63, Subpart A and Subpart DDDDD, as they apply to EU9B03, by the initial compliance date. **(40 CFR Part 63, Subparts A and DDDDD)**

Footnotes:

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

**FG11BFA - Boiler 11 System
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

The Boiler 11 System Flexible group (FG11BFA), has eight emission units that are part of Boiler 11 (EU11B68) and the Boiler 11 Fuel and Ash Handling systems (multiple emission units).

Boiler 11 was installed 1981 and modified 1986. It is an ABB Combustion Engineering combination fuel boiler rated for 750,000 pounds of steam per hour (approximately 1040 million BTU per hour heat input) that provides steam for mill processes and steam turbine-generators for producing electricity. The Boiler 11 burns natural gas and solid fuels, which include pulverized coal, wood residue, wastewater treatment plant residuals, TDF, and NHSM pellets.

The Boiler 11 Fuel and Ash Handling System includes the following emission units: Coal Handling (EUCH68), Fuel Handling including wood residue, wastewater treatment plant residuals, pellet fuel, and TDF (EUFH68), #1 Coal Silo (EU1S68), #2 Coal Silo (EU2S68), #3 Coal Silo (EU3S68), #1 Ash Silo (EU1AS68), and #2 Ash Silo (EU2AS68).

Emission Units: EU11B68, EUCH68, EUFH68, EU1S68, EU2S68, EU3S68, EU1AS68, EU2AS68

Flexible Group: FGBMACTB09B11

POLLUTION CONTROL EQUIPMENT

Over-fired Air System (OFA) modified 2012, Multiclone and Electrostatic Precipitator on EU11B68

Individual Baghouses on #1, #2, and #3 Coal Silos; Baghouse on #2 Ash Silo; Pugmills for wetting ash from #1 and #2 Ash Silos prior to loading into trucks for disposal.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. CO	0.50 lb / MMBTU heat input ²	When firing solid fuels	EU11B68	SC V.1	R 336.1201 40 CFR 52.21
2. NOx	0.70 lb / MMBTU heat input ²	30-day rolling average, when firing solid fuels	EU11B68	SC VI.2	R 336.1201 40 CFR Part 60, Subpart Db 40 CFR 52.21
3. NOx*	Limits specified in Table 81 of Rule 801 ¹	Ozone Season	EU11B68	SC VI.3	R 336.1801
4. PM	0.06 lb / MMBTU heat input ²	When firing solid fuels	EU11B68	SC V.1	R 336.1201 40 CFR 52.21 40 CFR Part 60, Subpart D
5. SO2	1.2 lbs /MMBTU heat input ²	10-day rolling average, when firing solid fuels	EU11B68	SC VI.8	R 336.1201 40 CFR Part 60, Subpart D 40 CFR 52.21
6. Mercury	7.1 lb ²	24-hour period, when firing wastewater treatment plant residuals	EU11B68	SC VI.22	40 CFR 61.52(b)

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
 Expiration Date: September 22, 2026
 PTI No: MI-PTI-A0884-2021b

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
7. Opacity	20%, except for one 6-minute average per hour of not more than 27%.	6-Minute Average	EU11B68	SC VI.1	R 336.1301(1)
8. PM	0.03 gr / dscf of exhaust gases ²	Hourly	Each exhaust of FGFAHS68 equipment for handling and storage of wood residue, coal, wastewater treatment plant residuals, and ash	SC IX.1	R 336.1201 40 CFR 52.21
9. Visible Emissions	5% opacity ²	Instantaneous	FGFAHS68 equipment for handling solid fuels and ash	SC IX.1	R 336.1201 R 336.1301
* During years when the boiler meets the definition of a fossil fuel fired emission unit per the definition in R 336.1801(1)(b).					

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Boiler Fuel	At least 45% by weight of the fuel fired during normal operation is wood residue and/or wastewater treatment plant residuals measured as a percentage of wet weight of wood residue and/or wastewater treatment plant residuals per the total wet weight of all solid fuels ²	10-day rolling average	EU11B68	SC VI.5	R 336.1201 40 CFR 52.21

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
2. Coal – Sulfur Content	Average of 1.0 percent by weight, calculated on the basis of 12,000 BTU /lb ²	10-day rolling average	EU11B68	SC VI.6	R 336.1201 40 CFR Part 60, Subpart D 40 CFR 52.21
3. TDF	90 tons per day ²	Monthly average	EU11B68	SC VI.7	R 336.1205(1)(a) R 336.1205(3)
4. TDF	32,220 tons per year ²	12-month rolling average	EU11B68	SC VI.7	R 336.1205(1)(a) R 336.1205(3)
5. Engineered non-waste fuel pellets	88,700 tons per year ²	12-month rolling time period as determined at the end of each calendar month	EU11B68	SC VI.12	R 336.1205(1)(a) R 336.1205(3) R 336.1225
6. Engineered non-waste fuel pellets - chlorine (or total halogen content *	15,000 ppm ²	By weight, as received	EU11B68	SC VI.11	R 336.1225
7. Engineered non-waste fuel pellets	20% heat input	12-month rolling time period as determined at the end of each calendar month	EU11B68	SC VI.13	R 336.1205(1)(a) R 336.1205(3) R 336.1225

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not use solid fuel to start up EU11B68.² **(R 336.1201, 40 CFR 52.21, R 336.1331)**
2. The permittee shall not operate EU11B68 unless the multiclone and electrostatic precipitator are operating properly.² **(R 336.1201, 40 CFR 52.21, R 336.1331, R 336.1910)**
3. Solid fuels feed to EU11B68 shall be reduced immediately, consistent with safe operating procedures, upon operating the electrostatic precipitator as single chambered unit during maintenance. Solid fuels input feed to EU11B68 may be increased when the electrostatic precipitator is back on line and functioning properly.² **(R 336.1201, R 336.1331, R 336.1910)**
4. The permittee shall not operate the EU11B68 equipment for the handling and storage of solid fuels unless the dust collection equipment is operating properly.² **(R 336.1201, 40 CFR 52.21, R 336.1901, R 336.1910, R 336.1371, R 336.1372)**
5. All coal handling and storage shall be totally enclosed or equipped with dust suppression or baghouse control equipment.² **(R 336.1201, 40 CFR 52.21, R 336.1901, R 336.1371, R 336.1372)**
6. Reference FGBMACTB09B11 for Process/Operational Restrictions.

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 carbon monoxide and particulate matter emission rates from EU11B68 by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

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

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

2. The permittee shall verify the CO and PM emission rates from EU11B68, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. **(R 336.1213(3))**
4. Verification of the supplier certificate of analysis for engineered non-waste fuel pellets may be required, by sampling at owner's expense, in accordance with Department requirements.² **(R 336.2001, R 336.2003)**
5. Reference FGBMACTB09B11 for additional Testing/Sampling requirements.

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor and record the opacity and oxygen from EU11B68 on a continuous basis in a manner and with instrumentation acceptable to the AQD.² **(R 336.1201, R 336.2101, 40 CFR Part 60, Subpart D)**
2. The permittee shall monitor and record the nitrogen oxides emission from EU11B68 on a continuous basis in a manner and with instrumentation acceptable to the AQD.² **(R 336.1201, 40 CFR 52.21, 40 CFR Part 60, Subpart Db)**
3. The permittee shall measure NOx emissions using a NOx CEMS during the ozone control period in accordance with the provisions of R 336.1801(11) when subject to the ozone control period as described in Part I above.¹ **(R 336.1801(8))**
4. The permittee shall keep records of the quantities of natural gas and solid fuels burned in EU11B68. **(R 336.1213(3))**
5. The permittee shall monitor and record the percentage of wood residue fuel and/or wastewater treatment plant residuals fired in EU11B68 to determine compliance with the limitation specified under Material Usage and Emission Limits above. **(R 336.1213(3))**
6. The permittee shall obtain and keep records of the sulfur, ash, and BTU content of the coal burned in EU11B68. The permittee shall obtain from the supplier a laboratory analysis of the coal ash, sulfur, and BTU content for each bulk shipment. The permittee shall also record the date received, source of coal and shipper, and tons received. At least once per calendar year, the permittee shall have an analysis performed of the coal sulfur, ash, and BTU content. This analysis shall be independent of the analyses received from the coal supplier with each

shipment. The determination of coal sulfur content shall be carried out in accordance with one of the following procedures: ASTM Method 3177-75 or ASTM Method D4239 or an alternative method approved by the AQD District Supervisor.² **(R 336.1201, R 336.1213(3), 40 CFR Part 60, Subpart Db)**

7. The permittee shall obtain and keep records of sulfur, ash, and Btu content of the TDF burned in EU11B68. A minimum of twice per year the permittee shall obtain (independently or from the supplier) a laboratory analysis of the ash, sulfur, and BTU content. The permittee shall also record the date received, source, shipper and tons received. At least once per year, the permittee shall have an analysis performed of the TDF for sulfur, ash, arsenic, cadmium, total chromium, lead, manganese, mercury, nickel, zinc and Btu content. The TDF analysis shall be carried out in accordance by an approved ASTM Method or an alternative method approved by the AQD District Supervisor. Records shall be kept on file for a period of at least five years and made available to the Department upon request.² **(R 336.1201, R 336.1205)**
8. Monitoring and recording of emissions and operating information from EU11B68 is required to comply with federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and D.² **(R 336.1201, 40 CFR Part 60, Subparts A and D)**
9. The permittee shall comply with applicable oxides of nitrogen monitoring and recordkeeping provisions as specified in Rule 801, during years when the boiler meets the definition of a fossil fuel fired emission unit, per the definition in R 336.1801(1)(b).¹ **(R 336.1801)**
10. The permittee shall obtain and keep records of the chlorine (or total halogens) and Btu content of the engineered non-waste fuel pellets burned in EU11B68. When burning engineered non-waste fuel pellets in EU11B68, the permittee shall obtain (independently or from the supplier) a monthly laboratory analysis of the chlorine and BTU content. The permittee shall also record the date received, source, shipper and tons of engineered non-waste fuel pellets received. The permittee shall monitor and record the supplier analysis for engineered non-waste fuel pellets received. Analysis shall contain the sample date, results of the sampling analysis performed, and the analytical methods used.² **(R 336.1205(1)(a), R 336.1205(3), R 336.1225)**
11. The permittee shall monitor and record, the tons of engineered non-waste fuel pellets used as fuel for EU11B68, on a monthly and 12-month rolling time period basis. The permittee shall use a monitoring and recordkeeping method acceptable to the AQD District Supervisor and make all records available to the Department upon request.² **(R 336.1205(1)(a), R 336.1205 (3), R 336.1225)**
12. The permittee shall monitor and record the percent of engineered non-waste fuel pellets, on a heat input basis, used as fuel for EU11B68, on a monthly and 12-month rolling time period basis. The permittee shall use a monitoring and recordkeeping method acceptable to the AQD District Supervisor and make all records available to the Department upon request.² **(R 336.1205(1)(a), R 336.1205 (3), R 336.1225)**
13. The permittee shall keep and maintain all sampling and/or testing results for the engineered non-waste fuel pellets used as fuel for EU11B68, for a period of five years. The permittee shall use a monitoring and recordkeeping method acceptable to the AQD District Supervisor and make all records available to the Department upon request.² **(R 336.1205(1)(a), R 336.1205(3), R 336.1225)**
14. The permittee shall utilize COM-recorded opacity as an indicator of the proper operation of the electrostatic precipitator. The indicator range of opacity defining proper function of the ESP is 0 to 20% based on a 6-minute average. 6-minute average values shall be based on 24 or more equally spaced instantaneous opacity measurements per 6-minute period. The COM shall be calibrated in accordance with 40 CFR, Part 60, Subpart A and Appendix B. **(40 CFR 64.6(c)(1)(i and ii))**
15. The opacity monitor shall continuously monitor opacity. The monitor shall be calibrated annually. **(40 CFR 64.6(c)(1)(iii))**
16. An excursion is a departure from the indicator range of 0 to 20% opacity based on a 6-minute averaging time. **(40 CFR 64.6(c)(2))**

17. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). The corrective actions are specified in facility's Title V Inspection and Maintenance (I&M) Plan. **(40 CFR 64.7(d))**
18. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**
19. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
20. 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))**
21. The permittee shall comply with the sludge mercury monitoring requirements of 40 CFR 61.54 and 40 CFR 61.55 or other approved method. **(40 CFR 61.54, 40 CFR 61.55)**
22. The permittee shall follow additional Monitoring/Recordkeeping requirements found in FGBMACTB09B11.

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Quarterly reporting of the continuous emission monitoring for opacity and nitrogen oxides emissions from EU11B68. **(R 336.1213(3), 40 CFR Part 60, Subpart Db)**
5. The permittee shall comply with applicable oxides of nitrogen reporting and compliance certification requirements as specified in Rule 801, during years when the boiler meets the definition of a fossil fuel fired emission unit, per the definition in R 336.1801(1)(b).¹ **(R 336.1801)**
6. Each semiannual report of monitoring and deviations as specified under the CAM requirements shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**

7. Each semiannual report of monitoring deviations as specified under the CAM requirements shall include summary information on the number, duration, and cause of CAM exceedances/excursions in the reporting period; and the corrective actions taken in response. If there were no excursions/exceedances in the reporting period, then this report shall include a statement that there were no excursions/exceedances. **(40 CFR 64.9(a)(2)(i))**
8. The permittee shall complete 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. 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))**
9. 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))**
10. The permittee shall submit two complete test reports 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))**
11. The permittee shall follow additional Reporting requirements outlined in FGBMACTB09B11.

See Appendix 8-1

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. SV68033S	132 ²	330 ²	R 336.1225 R 336.2803 R 336.2804 40 CFR 52.21 (c)(d)

IX. OTHER REQUIREMENT(S)

1. The air cleaning devices shall be maintained and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law. The permittee shall carry out an Inspection and Maintenance Program, including keeping of records of inspections done, problems found, repairs done, and/or corrective action taken.² **(R 336.1301, R 336.1331, R 336.1910, R 336.1213(3))**
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 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))**

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
Expiration Date: September 22, 2026
PTI No: MI-PTI-A0884-2021b

4. There shall be no visible emissions greater than 5% from the coal storage pile and the EU11B68 equipment for handling solid fuels and ash.² **(R 336.1301, R 336.1201)**

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).

**FGSB14 - Chip Surge Bins
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

The Chip Surge Bin System (FGSB14) has two emission units: #1 Chip Surge Bin (EU1SB14) and #2 Chip Surge Bin (EU2SB14).

Emission Units: EU1SB14, EU2SB14

POLLUTION CONTROL EQUIPMENT

#1 Chipper Cyclone, #2 Chipper Cyclone

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.10 lb / 1000 lbs of exhaust gases, measured at operating conditions ²	Weekly	EU1SB14 EU2SB14	SC VI.1	R 336.1201 R 336.1331

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

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 emissions from the cyclone exhausts while the process is operating. These inspections shall be conducted on a weekly basis, or in accordance with an alternate schedule approved by the AQD. (R 336.1213(3))

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The air cleaning devices shall be maintained and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law. The permittee shall carry out an Inspection and Maintenance Program, including keeping of records of inspections done, problems found, repairs done, and/or corrective action taken.² **(R 336.1301, R 336.1331, R 336.1910, R 336.1213(3))**

Footnotes:

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

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

**FGRMP - RMP System
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

The Refiner Mechanical Pulping System (FGRMP) has three emission units: the Chip Silo (EUCS61), the Chip Surge Bin (EUSB61), and Refiner Mechanical Pulping (EURMP61).

Emission Units: EUCS61, EUSB61, EURMP61

POLLUTION CONTROL EQUIPMENT

Chip Silo Cyclone, Chip Surge Bin Cyclone

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.10 lb / 1000 lbs of exhaust gas, measured at operating conditions ²	Weekly	EUCS61 EUSB61 EURMP61	SC VI.1	R 336.1201 R 336.1331

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not produce more than 113,150 tons of Refined Mechanical Pulp (RMP) per year through EURMP61, as determined on a 12-month rolling time period basis.² **(R 336.1205(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

See Appendix 5-1

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 emissions from the cyclone exhausts of EUCS61 and EUSB61 while EURMP61 is operating. These inspections shall be conducted on a weekly basis, or in accordance with an alternate schedule approved by the AQD. **(R 336.1213(3))**

- The permittee shall monitor and record the amount of RMP produced monthly and on a 12-month rolling average in a manner acceptable to the AQD District Supervisor.² **(R 336.1205(3))**

See Appendix 7-1

VII. REPORTING

- Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
- 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))**
- 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 8-1

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-RMP_DrumThick	30 ²	74.8 ²	R 336.1201
2. SV-RMP_SecRefine	24 ²	121.8 ²	R 336.1201

IX. OTHER REQUIREMENT(S)

- The air cleaning devices shall be maintained and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law. The permittee shall carry out an Inspection and Maintenance Program, including keeping of records of inspections done, problems found, repairs done, and/or corrective action taken.² **(R 336.1301, R 336.1331, R 336.1910, R 336.1213(3))**

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).

**FGPAPER - Paper Machine Systems
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Paper Machine Systems (FGPAPER) includes the #1 Paper Machine (EU1PM32) and associated stock preparation equipment, the #3 Paper Machine (EU3PM07) and associated stock preparation equipment and the #4 Paper Machine (EU4PM64) and associated preparation equipment.

Emission Units: EU1PM32, EU3PM07, EU4PM64

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC including additives and/or cleaning solvents	27.51 tpy ²	12-month rolling average as determined at the end of each calendar month	EU3PM07	SC VI.2	R 336.1201
2. VOC including additives and/or cleaning solvents	26.9 tpy*	12-month rolling average as determined at the end of each calendar month	EU4PM64	SC VI.5	R 336.1205(3) R 336.1225 R 336.1702

*Emission limit is based on 0.20 pounds VOC per ton of paper produced.²

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Paper	268,650 tpy ²	12-month rolling average as determined at the end of each calendar month	EU4PM64	SC VI.4	R 336.1205(1)(a) R 336.1225 R 336.1702

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall use only mill supply water, non-direct contact condensates, well water, or white water as sources for EU3PM07.² **(R 336.1201)**

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 5-1

VI. MONITORING/RECORDKEEPING

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

1. On an annual basis, the permittee shall calculate and report the actual emissions of each regulated air pollutant as defined in Rule 212(6) for EU1PM32 utilizing the emissions inventory forms provided by the Department. (R 336.1212(6), R 336.1213(3))
2. The permittee shall perform monthly calculations of the 12-month rolling average total VOC emission from EU3PM07 expressed in tons per year to determine compliance with the limitation specified under Emission Limits above.² (R 336.1201, R 336.1213(3))
3. The permittee shall keep a Material Safety Data Sheet and/or a material specification sheet for all chemical additives used by EU3PM07. At a minimum, these records shall include information regarding the VOC content, density, and solids weight fraction of paper machine additives.² (R 336.1201, R 336.1213(3))
4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period paper production from EU4PM64, as required by SC II.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request. (R 336.1205(1)(a), R 336.1225, R 336.1702)
5. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period VOC emission calculation records for EU4PM64, as required by SC I.2. The permittee shall keep all records on file at the facility and make them available to the Department upon request. (R 336.1205(3), R 336.1225, R 336.1702, R 336.1901, R 336.1910, R 336.2802, 40 CFR 52.21)
6. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each chemical additive used by EU4PM64, including the weight percent of each component. The data may consist of Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep records on file at the facility and make them available to the Department upon request. (R 336.1225, R 336.1702)

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 8-1

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. SV07049V	18.0 ¹	84.0 ¹	R 336.1224
2. SV07050V	48.0 ¹	84.0 ¹	R 336.1224
3. SV07051V	48.0 ¹	84.0 ¹	R 336.1224
4. SV07052V	36.0 ¹	84.0 ¹	R 336.1224
5. SV07053V	42.0 ¹	83.0 ¹	R 336.1224
6. SV07054V	36.0 ¹	84.0 ¹	R 336.1224
7. SV07056V	24.0 ¹	84.0 ¹	R 336.1224
8. SV07057V	48.0 ¹	84.0 ¹	R 336.1224
9. SV07058V	55.0 ¹	84.0 ¹	R 336.1224
10. SV07061V	36.0 ¹	64.0 ¹	R 336.1224
11. SV07113V	45.0 ¹	58.0 ¹	R 336.1224
12. SV07114V	45.0 ¹	58.0 ¹	R 336.1224
13. SV07116V	7.0 ¹	76.0 ¹	R 336.1224
14. SV07150V	16.0 ¹	66.0 ¹	R 336.1224
15. SV64041V	30.01 ¹	94.21 ¹	R 336.1224
16. SV64031V	60.01 ¹	101.71 ¹	R 336.1224
17. SV64032V	60.01 ¹	101.71 ¹	R 336.1224
18. SV64033V	60.01 ¹	101.71 ¹	R 336.1224
19. SV64118V	36.01 ¹	93.21 ¹	R 336.1224
20. SV64037V	48.01 ¹	97.81 ¹	R 336.1224
21. SV64049V	36.01 ¹	94.81 ¹	R 336.1224
22. SV63006V	30.01 ¹	91.51 ¹	R 336.1224

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).

**FGCOATER - Paper Machine Coaters
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

The Paper Machine Coaters (FGCOATER) includes 3 emission units: the #1 Coater (EU1C36), the #3 Coater (EU3C27), and the #4 Coater (EU4C65). These coaters are subject to 40 CFR Part 63, Subpart JJJJ.

Emission Units: EU1C36, EU3C27, EU4C65

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	7.8 pph ²	Monthly average	EU1C36	SC VI.2	R 336.1201 R 336.1702
2. VOC	0.00037 lb / lb of coating solids applied ²	Monthly average	EU1C36	SC VI.5	R 336.1201 R 336.1610(2)(f)
3. VOC including additives and/or cleaning solvents,	28.0 tpy ²	12-month rolling average	EU3C27	SC VI.4	R 336.1201
4. VOC	0.00027 lb / lb of coating solids applied ²	Monthly average	EU3C27	SC VI.5	R 336.1201 R 336.1610(2)(f)
5. VOC including additives and/or cleaning solvents	31.5 tpy ²	12-month rolling average	EU4C65	SC VI.4	R 336.1201 R 336.1702
6. VOC	0.00021 lb / lb of coating solids applied ²	Monthly average	EU4C65	SC VI.5	R 336.1201 R 336.1702
7. HAP*	No more than 20% of the mass of coating solids applied for each month	Monthly average	EU1C36 EU3C27 EU4C65	SC VI.7	40 CFR 63.3370 (c)(4) 40 CFR 63.3320(b)(3)

*The permittee has chosen to demonstrate compliance with the limitation of no more than 0.20 kg organic HAP per kg of coating solids, as applied, as a monthly average for all coating materials applied, using volatile organic content as a surrogate for the organic HAP content of coatings.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

See Appendix 5-1

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 monthly records of all coating usage amounts and VOC contents and the hours of operation of EU1C36.² (R 336.1201, R 336.1213(3))
2. The permittee shall perform calculations of the VOC emission rate from EU1C36 expressed in pounds of VOC per hour to determine compliance with the limitation specified under Emission Limits above.² (R 336.1201, R 336.1213(3))
3. The permittee shall monitor and record the raw material usage rate and the VOC content of each raw material used for EU3C27 and EU4C65.² (R 336.1201, R 336.1610(2)(f))
4. The permittee shall perform monthly calculations of the 12-month rolling average total VOC emission from EU3C27 and EU4C65 expressed in tons per year to determine compliance with the limitation specified under Emission Limits above.² (R 336.1201, R 336.1213(3))
5. The permittee shall perform monthly calculations of the monthly average VOC emission from EU1C36, EU3C27 and EU4C65 expressed in pounds of VOC per pound of coating solids applied to determine compliance with the limitation specified under Emission Limits above.² (R 336.1201, R 336.1213(3))
6. The permittee shall keep a Material Safety Data Sheet and/or a material specification sheet for all raw materials used by EU3C27 and EU4C65. At a minimum, these records shall include information regarding the VOC content, density, and solids weight fraction of each raw material used.² (R 336.1201, R 336.1213(3))
7. The permittee shall maintain records specified in 40 CFR 62.10(b)(2) for all measurements needed to demonstrate compliance with 40 CFR Part 63, Subpart JJJJ, including monthly average coating material usage, volatile organic content and coating solids content. The as applied volatile organic content and coating solids content shall be determined using the methodologies identified in 40 CFR 63.3360(d)(3). (40 CFR 63.3410(a)(1)(iv)), 40 CFR 63.3360(d)(3))

See Appendix 7-1

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))**

See Appendix 8-1

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. SV36024S	48 ¹	98 ¹	R 336.1901
2. SV36025S	48 ¹	98 ¹	R 336.1901
3. SV36026S	48 ¹	98 ¹	R 336.1901
4. SV36027S	48 ¹	98 ¹	R 336.1901
5. SV27003V	26 x 261 ¹	711 ¹	R 336.1224
6. SV27006V	26 x 261 ¹	711 ¹	R 336.1224
7. SV27009V	26 x 261 ¹	711 ¹	R 336.1224
8. SV27014V	26 x 261 ¹	711 ¹	R 336.1224
9. SV27015V	26 x 261 ¹	711 ¹	R 336.1224
10. SV27017V	29 x 261 ¹	651 ¹	R 336.1224
11. SV27033V	481 ¹	861 ¹	R 336.1224
12. SV27034V	481 ¹	861 ¹	R 336.1224
13. SV27035V	481 ¹	861 ¹	R 336.1224

IX. OTHER REQUIREMENT(S)

1. There shall be no visible emissions except uncombined water vapor from the #1 Coater coating applicators or their associated dryers.² **(R 336.1301, R 336.1201)**

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).

**FGSTARCH - Starch Handling and Make down
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Equipment for the handling and make-down of starch for the paper machines and coaters: The #1 Coater Dry Starch System equipment (EUSS43) includes #1 and #2 Starch Silo, #1 and #2 Starch Day Bins, and #1 and #2 Starch Wet Out Tanks. The #3 Paper Machine Dry Starch System equipment includes #1 Starch Silo (EU1SS08) and the #1 Starch Make down Tank (EU1M08). The #3 Coater Dry Starch System includes the #2 Starch Silo (EU2SS08), #3 Starch Silo (EU3SS08), and #2 Starch Make down Tank (EU2M08). The #4 Coater System includes Starch Storage (EUSS66) consisting of #1 and #2 Starch Silos.

Emission Units: EUSS43, EU1SS08, EUIM08, EU2SS08, EU3SS08, EU2M08, EUSS66

POLLUTION CONTROL EQUIPMENT

For the #1 Coater Dry Starch System, Individual baghouse dust collectors serving #1 and #2 Starch Silos, common baghouse serving #1 and #2 Starch Day Bins, and common baghouse serving #1 and #2 Starch Wet Out Tanks. For the #3 Paper Machine, baghouse dust collectors serve #1 Starch Silo and #1 Starch Make down Tank. For the #3 Coater Dry Starch System, baghouse dust collectors serve the #2 Starch Silo, #3 Starch Silo, and #2 Starch Make down Tank. For the #4 Coater System, Individual baghouse dust collectors serve the #1 and #2 Starch Silos.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.10 lb / 1000 lbs of exhaust gas, calculated on a dry gas basis. ²	Weekly	Each baghouse exhaust of FGStarch	SC VI.1	R 336.1201 R 336.1331

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the starch handling equipment unless the baghouse dust collectors are operating properly.² (R 336.1201, R 336.1910)

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 emissions from the baghouse vents during starch transfer when the process occurs during daylight hours. These observations shall be conducted on a weekly basis, or in accordance with an alternate schedule approved by the AQD.² (R 336.1213(3))

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The air cleaning devices shall be maintained and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law. The permittee shall carry out an Inspection and Maintenance Program, including keeping of records of inspections done, problems found, repairs done, and/or corrective action taken.² (R 336.1301, R 336.1331, R 336.1910, R 336.1213(3))

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).

**FGBBKRAFT - Kraft Mill Subpart BB System
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Kraft Pulp Mill Subpart BB Systems (FGBBKRAFT) include the following: The Digester System (EUBB22) consists of batch digesters, blow tanks, and a blowheat condensing system. The Brownstock System (EUBB23) processes brown pulp from the digester blow tanks and includes the knotters, brownstock washers, and associated vacuum pumps and filtrate tanks. The Brownstock System is used for final treatment of Kraft pulping process condensates regulated under the Standards for Kraft Pulping Process Condensates 40 CFR 63.446 (see EUCOND - Condensate Collection and Treatment System). The Steam Stripping System (EUBB33) consists of a steam stripper column and reflux condenser used to strip total reduced sulfur (TRS) compounds from condensate streams from various processes in the Kraft pulp mill. The Steam Stripping System is also used to pre-treat kraft pulping process condensates regulated under the Standards for Kraft Pulping Process Condensates 40 CFR 63.446 (see EUCOND - Condensate Collection and Treatment System). The Evaporator System (EUBB05) consists of a multiple-effect evaporator and associated condensers and hotwell used to concentrate the spent cooking liquid that is separated from the pulp (black liquor).

Emission Units: EUBB22, EUBB23, EUBB33, EUBB05

POLLUTION CONTROL EQUIPMENT

Gases from the EUBB22 Digester System, the EUBB33 Steam Stripping System, and the EUBB05 Evaporator System are routed to the EULVHC closed vent gas collection system and destroyed in the Thermal Oxidizer (EUOC33) or the Lime Kiln (EULK15) as a backup. Gases from the EUBB23 Brownstock System and the EUBB22 Digester System digester domes and capping valves are routed to the EUHVLC closed vent gas collection system and destroyed in Chemical Recovery Furnace (EURF15).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Total Reduced Sulfur	5 ppm by volume on a dry basis, corrected to 10% oxygen, based upon a 12-hour average*	12-Hour Average	FGBBKRAFT	Section III.1	40 CFR 60.283 40 CFR 60.284(d)(3) 40 CFR 60.283(a)(1)(ii) 40 CFR 60.283(a)(1)(iii)

*This limit applies unless the gases are combusted in either:
 a. A recovery furnace, or
 b. The gases are combusted in a thermal oxidizer or a lime kiln and are subjected to a minimum temperature of 1200 F for at least 0.5 seconds.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the EUBB22, EUBB33, or EUBB05 Systems unless the gases are properly collected and oxidized in a properly installed and operated control system consisting of either the Thermal Oxidizer (EUOC33) followed by the packed scrubber or the Lime Kiln (EULK15) as a backup incineration device. EUBB23 Brownstock System gases and EUBB22 Digester System gases from the digester domes and capping valves must be properly collected and combusted in the #10 Recovery Furnace (EURF15).² **(R 336.1201, R 336.1910, 40 CFR 60.283(a)(1)(ii) and 40 CFR 60.283(a)(1)(iii))**

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))**

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 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

FGLVHC - LVHC System FLEXIBLE GROUP CONDITIONS

DESCRIPTION

The LVHC System (FGLVHC) consists of a collection of equipment regulated by 40 CFR Part 63, Subpart S including the digesters, turpentine recovery, evaporator, steam stripping system, and associated equipment which vent to the LVHC gas collection system. Emission Units include: Evaporator NSPS Devices (EUBB05), Digester Other Devices (EUOT22), Digester NSPS Devices (EUBB22), and Miscellaneous Turpentine Handling Devices (EUMT22), Steam Stripping NSPS Devices (EUBB33) and Miscellaneous Condensate Stripping System Devices (EUMC33).

Emission Units: EUBB05, EUOT22, EUBB22, EUMT22, EUBB33, EUMC33

POLLUTION CONTROL EQUIPMENT

LVHC gases from FGLVHC are collected in a closed vent collection system and incinerated in the Thermal Oxidizer (EUOC33) or the Lime Kiln (EULK15) as a backup incineration device.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The total HAP emissions from FGLVHC be enclosed and vented into a closed-vent system and routed to a control device that meets the requirements specified in 40 CFR 63.443(d). **(40 CFR 63.443(c))**
2. Each enclosure and closed-vent system used for capturing and transporting vent streams that contain HAP shall meet the applicable requirements specified in “Standards for Enclosures and Closed-Vent Systems.” **(40 CFR 63.450)**
3. The permittee shall direct total HAP emissions from the closed-vent system to a control device that meets one of the following requirements:
 - a. Reduces total HAP emissions by 98% or more by weight; or **(40 CFR 63.443(d)(1))**
 - b. Reduces the total HAP concentration at the outlet of the thermal oxidizer to 20 parts per million or less by volume, corrected to 10% oxygen on a dry basis; or **(40 CFR 63.443(d)(2))**
 - c. Reduces total HAP emissions using a thermal oxidizer designed and operated at a minimum temperature of 1600°F and a minimum residence time of 0.75 seconds; or **(40 CFR 63.443(d)(3))**
 - d. Reduces total HAP using a boiler, lime kiln, or recovery furnace by introducing the HAP emission stream with the primary fuel or into the flame zone. **(40 CFR 63.443(d)(4))**
4. Records shall be maintained for all periods of excess emissions. Periods of excess emissions from FGLVHC are not violations of 63.443(c) and (d) provided that the time of excess emissions divided by the total process operating time in a semiannual reporting period does not exceed one (1) percent for control devices used to reduce the total HAP emissions from FGLVHC. **(40 CFR 63.443(e)(1))**

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. Applicable test requirements, methods, and procedures as specified in 40 CFR Part 63, Subparts A and S. **(40 CFR 63.7, 40 CFR 63.457, R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. Each enclosure and closed-vent system used to comply with the 40 CFR 63.450 “Standards for Enclosures and Closed-Vent Systems” shall comply with the inspection requirements as specified in 40 CFR 63.453(k). **(40 CFR 63.453(k))**
2. Applicable monitoring and recordkeeping provisions as specified in 40 CFR Part 63, Subpart S. **(40 CFR 63.453, 40 CFR 63.454, R 336.1213(3))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Applicable reporting requirements as specified in 40 CFR Part 63, Subpart S. **(40 CFR 63.455, R 336.1213(3))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must comply with the applicable requirements of 40 CFR Part 63, Subpart A – General Provisions, as indicated in 40 CFR Part 63, Table 1 to Subpart S – General Provisions Applicability to Subpart S. **(40 CFR 63.440(g))**

Footnotes:

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

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

**FGHVLC - HVLC System
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

The HVLC System (FGHVLC) consists of a collection of equipment regulated by 40 CFR Part 63, Subpart S including the following: knotters, brownstock washers, brownstock filtrate tanks, digester fugitive gases, and black liquor storage and processing tanks. Emission Units include: EUBB22 digester capping valves, Brownstock NSPS Devices (EUBB23) and Miscellaneous Evaporator System Devices (EUME05).

Emission Units: EUBB22, EUBB23, EUME05

POLLUTION CONTROL EQUIPMENT

HVLC gases from FGHVLC are collected in a closed vent system and destroyed in the Chemical Recovery Furnace (EURF15).

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The total HAP emissions from FGHVLC shall be enclosed and vented into a closed-vent system and routed to a control device that meets the requirements specified in 40 CFR 63.443(d). **(40 CFR 63.443(c))**
2. Each enclosure and closed-vent system used for capturing and transporting vent streams that contain HAP shall meet the applicable requirements specified in “Standards for Enclosures and Closed-Vent Systems.” **(40 CFR 63.450)**
3. The permittee shall direct total HAP emissions from the closed-vent system to a control device that meets one of the following requirements:
 - a. Reduces total HAP emissions by 98% or more by weight; or **(40 CFR 63.443(d)(1))**
 - b. Reduces the total HAP concentration at the outlet of the thermal oxidizer to 20 parts per million or less by volume, corrected to 10% oxygen on a dry basis; or **(40 CFR 63.443(d)(2))**
 - c. Reduces total HAP emissions using a thermal oxidizer designed and operated at a minimum temperature of 1600°F and a minimum residence time of 0.75 seconds; or **(40 CFR 63.443(d)(3))**
 - d. Reduces total HAP using a boiler, lime kiln, or recovery furnace by introducing the HAP emission stream with the primary fuel or into the flame zone. **(40 CFR 63.443(d)(4))**
4. Records shall be maintained for all periods of excess emissions. Periods of excess emissions from FGHVLC are not violations of 63.443(c) and (d) provided that the time of excess emissions divided by the total process operating time in a semiannual reporting period does not exceed four (4) percent for control devices used to reduce the total HAP emissions from FGHVLC. **(40 CFR 63.443(e)(2))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. Applicable test requirements, methods, and procedures as specified in 40 CFR Part 63, Subparts A and S. **(40 CFR 63.7, 40 CFR 63.457, R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. Each enclosure and closed-vent system used to comply with the 40 CFR 63.450 “Standards for Enclosures and Closed-Vent Systems” shall comply with the inspection requirements as specified in 40 CFR 63.453(k). **(40 CFR 63.453(k))**
2. Applicable monitoring and recordkeeping provisions as specified in 40 CFR Part 63, Subpart S. **(40 CFR 63.453, 40 CFR 63.454, R 336.1213(3))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Applicable reporting requirements as specified in 40 CFR Part 63, Subpart S. **(40 CFR 63.455, R 336.1213(3))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must comply with the applicable requirements of 40 CFR Part 63, Subpart A – General Provisions, as indicated in 40 CFR Part 63, Table 1 to Subpart S – General Provisions Applicability to Subpart S. **(40 CFR 63.440(g))**

Footnotes:

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

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

**FGTO33 - Thermal Oxidizer System
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

The Thermal Oxidizer System (FGTO33) includes two emission units: The Thermal Oxidizer (EUOC33), which is a dedicated incineration device for gases from the FGLVHC System and the Soda Ash Storage Tank (EUSA33).

Emission Units: EUOC33, EUSA33

POLLUTION CONTROL EQUIPMENT

Exhaust from the Thermal Oxidizer (EUOC33) is routed through a packed scrubber which utilizes a soda ash scrubbing solution to control sulfur dioxide emissions.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.10 lb / 1000 lbs of exhaust gas, measured at operating conditions ²	Continuous	Each exhaust of EUSA33	SC IX.9	R 336.1201 R 336.1331
2. SO ₂	55 ppm dry volume*based on a 12-hour averaging time ²	12-Hour Average	EUOC33	SC VI.4	R 336.1201
3. SO ₂	12.0 pph* based on a 12-hour averaging time ²	12-Hour Average	EUOC33	SC VI.4	R 336.1201
4. Total Reduced Sulfur**	5 ppm dry volume* based on a 12-hour averaging time	12-Hour Average	EUOC33	SC III.3	R 336.1201
5. Total HAP measured as methanol	5 ppm corrected to 10% oxygen	Hourly	EUOC33	SC V.2	40 CFR 63.443(d)
6. Total Reduced Sulfur**	0.58 pounds per hour* based on a 12-hour averaging time ²	12-Hour Average	EUOC33	SC III.3	R 336.1201
7. Visible Emissions	No visible emissions, except for uncombined water vapor ²	6-Minute Average	EUOC33	SC VI.1 SC VI.2	R 336.1201 R 336.1301

* Whenever the noncondensable gases from the Evaporator System, Steam Stripping System, and Digester System are oxidized in the Thermal Oxidizer followed by the packed scrubber. ²

** Measured as hydrogen sulfide

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. When noncondensable gases from the Evaporator System, Steam Stripping System, and Digester System are passed through the Thermal Oxidizer followed by the packed scrubber, a minimum operating temperature of 1200°F based upon a 5-minute averaging time measured at the point of incineration of noncondensable gases and a minimum retention time of 0.5 seconds shall be maintained. **(40 CFR 60.283(a)(1))**
2. The permittee shall direct total HAP emissions from the closed-vent system to a control device that meets one of the following requirements:
 - a. Reduces total HAP emissions by 98% or more by weight;² or **(40 CFR 63.443(d)(1))**
 - b. Reduces the total HAP concentration at the outlet of the Thermal Oxidizer to 20 parts per million or less by volume, corrected to 10% oxygen on a dry basis; or **(40 CFR 63.443(d)(2))**
 - c. Reduces total HAP emissions using a Thermal Oxidizer designed and operated at a minimum temperature of 1600°F and a minimum residence time of 0.75 seconds. **(40 CFR 63.443(d)(3))**
3. The permittee shall oxidize only the noncondensable gases from the Evaporator System, Steam Stripping System, and Digester System and shall burn only natural gas as a supplemental fuel in the Thermal Oxidizer.² **(R 336.1201)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall maintain the packed scrubber with the following:
 - a. A monitoring device for the continuous measurement of scrubber liquid feed rate.
 - b. A monitoring device for the continuous measurement of the pH of the scrubbing liquid.
 - c. A monitoring device for the continuous measurement of the pressure drop across the scrubber.² **(R 336.1201, R 336.1213(3), R 336.1910)**
2. The permittee shall maintain the Thermal Oxidizer with a continuous temperature monitoring and recording system to monitor the operating temperature as specified in Section III Process/Operational Restrictions above.² **(40 CFR 60.284(b)(1), R 336.1201, R 336.1213(3))**

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 total HAPs as measured by methanol emission rates from FGTO33 by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 63, Subpart S, Appendix A. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
2. The permittee shall verify the methanol emission rates from FGTO33, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall follow applicable monitoring and recordkeeping provisions as specified in 40 CFR Part 63, Subpart S. **(40 CFR 63.453, 40 CFR 63.454, R 336.1213(3))**
2. The permittee shall continuously measure pressure drop across the scrubber and record every 15-minutes for a 3-hour average as an indicator of proper operation of the scrubber. The indicator range for each scrubber is a minimum of 0.5 inches of water column (0.5 "WC) based on a 3-hour average or a range determined during the most recent performance test which showed compliance with the emission limits and approved by the AQD. **(40 CFR 64.6(c)(1)(i and ii))**
3. The permittee shall continuously monitor the scrubber liquid feed rates to the first and second stage of the scrubber and record every 15-minutes for a 3-hour average as an indicator of proper operation of the scrubber. The indicator range for liquid feed rate to the first stage of the scrubber is a minimum of 536 GPM and the second stage is 122 GPM based on a 3-hour average or a range determined during the most recent performance test which showed compliance with the emission limits and approved by the AQD. **(40 CFR 64.6(c)(1)(i and ii))**
4. The permittee shall continuously monitor the pH of the scrubber liquid in the first stage and second stage of the scrubber and record every 15-minutes for a 3-hour average as an indicator of proper operation of the scrubber. The indicator range for scrubber liquid pH in the first stage of the scrubber is a minimum of 6.3 and the second stage is a minimum of 7.8 based on a 3-hour average or a range determined during the most recent performance test which showed compliance with the emission limits and approved by the AQD. **40 CFR 64.6(c)(1)(i and ii))**
5. The liquid flow meter, pressure gauge and pH meter shall continuously monitor the scrubber liquid feed rate, differential pressure across the scrubber and pH of the scrubber liquid respectively. The averaging period is based on a three-hour averaging time. These monitors shall be calibrated annually or according to manufacturer's specifications and/or good engineering practice whichever is more frequent. **(40 CFR 64.6(c)(1)(iii))**
6. An excursion is a departure from the indicator ranges specified in SC IV.2, SC VI.1 and SC VI.2. **(40 CFR 64.6(c)(2))**
7. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). The corrective actions are specified in facility's Title V Inspection and Maintenance (I&M) Plan. **(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 purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**
9. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(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. **(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. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**

See Appendix 8-1

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. SV29038S	48 ²	148.3 ²	R 336.1901 40 CFR 63.443(d)

IX. OTHER REQUIREMENT(S)

1. The air cleaning devices shall be maintained and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law. The permittee shall carry out an Inspection and Maintenance Program, including keeping of records of inspections done, problems found, repairs done, and/or corrective action taken. **(R 336.1301, R 336.1910, R 336.1213(3))**
2. The permittee must comply with the applicable requirements of 40 CFR Part 63, Subpart A – General Provisions, as indicated in 40 CFR Part 63, Table 1 to Subpart S – General Provisions Applicability to Subpart S. **(40 CFR 63.440(g))**
3. The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
Expiration Date: September 22, 2026
PTI No: MI-PTI-A0884-2021b

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

Footnotes:

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

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

**FGB25 – Bleaching System
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

The Bleaching System (FGB25) has four emission units: Bleaching Stage Equipment (EUS25) which includes the bleaching stage equipment where chlorine dioxide is applied and removed. the Chlorine Dioxide Plant (EUB25), Extraction Devices (EUED25), and Methanol Storage (EUM25). The Bleaching System is used to whiten Brownstock pulp for papermaking. Bleaching is accomplished through the use of chemicals, bleaching towers, extraction towers, and washers. Chlorine dioxide is used for bleaching, and is manufactured on site.

Emission Units: EUS25, EUB25, EUED25, EUM25

POLLUTION CONTROL EQUIPMENT

Gases from the pulp bleaching stages are routed in a closed vent collection system to the Bleach Plant Scrubber System which consists of two packed scrubbers in series. Off-gases from the chlorine dioxide generator and storage tanks are scrubbed with chilled water in a tail gas scrubber prior to being scrubbed in the Bleach Plant Scrubber system.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Chlorine	789 mg/m ³ corrected to 70°F and 29.92 inches Hg	Test Protocol	EUS25 EUB25	SC V.3	R 336.1901¹
2. Chlorine Dioxide	79 mg/m ³ corrected to 70°F and 29.92 inches Hg	Test Protocol	EUS25 EUB25	SC V.3	R 336.1901¹
3. Chlorinated HAPs	Treatment device outlet concentration of 10 ppmv or less of total chlorinated HAP*	Test Protocol	EUS25	SC V.1 SC V.2	40 CFR 63.445(c)

* The control device used to reduce chlorinated HAP emissions (not including chloroform) from the equipment specified in 40 CFR 63.445(b) shall:
 a. Reduce the total chlorinated HAP mass in the vent stream entering the control device by 99 percent or more by weight;
 b. Achieve a treatment device outlet concentration of 10 ppmv or less of total chlorinated HAP; or
 c. Achieve a treatment device outlet mass emission rate of 0.001 kilograms of total chlorinated HAP mass per megagram (0.002 pounds per ton) of oven-dried pulp.²

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the process unless the combined scrubbers are operating properly.² **(R 336.1201, R 336.1910)**
2. The permittee shall not operate the modified chlorine dioxide plant unless the chilled water tail gas scrubber is operating properly.² **(R 336.1201, R 336.1910)**
3. The permittee shall direct all exhaust gases from the chilled water tail gas scrubber to the combined scrubbers.² **(R 336.1201)**
4. The equipment at each bleaching stage where chlorine dioxide is introduced shall be enclosed and vented to a closed-vent system and routed to a control device. **(40 CFR 63.445(b))**
5. Each enclosure and closed-vent system used for capturing and transporting vent streams that contain HAP shall meet the applicable requirements specified in “Standards for Enclosures and Closed-Vent Systems.” **(40 CFR 63.450)**
6. Each enclosure and closed-vent system used to comply with the 40 CFR 63.450 “Standards for Enclosures and Closed-Vent Systems” shall comply with the inspection requirements as specified in 40 CFR 63.453(k). **(40 CFR 63.453(k))**

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 conduct initial emissions tests for chlorinated HAPs per the applicable test requirements, methods, and procedures in 40 CFR Part 63, Subpart A and S. **(40 CFR 63.7, 40 CFR 63.457(a)(1), R 336.1213(3))**
2. Repeat performance tests for chlorinated HAPs (not including chloroform) shall be conducted at five-year intervals. The first of the 5-year repeat tests must be conducted by September 7, 2015, and thereafter within 60 months from the date of the previous performance test, unless the permittee operates the Thermal Oxidizer per SC III.2.c. Notification of performance tests shall be submitted at least 60 days in advance to the Administrator along with a site-specific test plan if requested. **(40 CFR 63.457(a), 40 CFR 63.457(a)(2), 40 CFR 63.443(d)(3), 40 CFR 63.7(b), 40 CFR 63.7(c))**
3. Performance tests shall be conducted according to procedures and test methods specified or approved by the AQD. Not less than 30 days prior to testing, a testing plan shall be submitted to the AQD for review. **(R 336.2001, R 336.2003)**

See Appendix 5-1

VI. MONITORING/RECORDKEEPING

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

1. The oxidation/reduction potential or pH of the scrubber effluent shall be continuously monitored and recorded at a minimum of 15-minute intervals while the emission unit is in operation. The oxidation/reduction potential shall be maintained, on a 3-hour average basis, within a range determined during the most recent performance test approved by the Administrator. **(40 CFR 63.453(c), R 336.1213(3))**

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
Expiration Date: September 22, 2026
PTI No: MI-PTI-A0884-2021b

2. The scrubber liquid effluent flow rate shall be continuously monitored and recorded at a minimum of 15-minute intervals while the emission unit is in operation. The scrubber liquid influent flow rate shall be maintained, on a 3-hour average basis, within a range determined during the most recent performance test approved by the Administrator. **(40 CFR 63.453(c), R 336.1213(3))**
3. The vent gas flow rate shall be continuously monitored and recorded at a minimum of 15-minute intervals by using fan motor amperage, on/off status, or the rotational speed of the fan. These options were approved by USEPA Region V in a letter to the permittee dated March 5, 2001. **(40 CFR 63.453(m), R 336.1213(3))**
4. Record methanol storage tank dimensions and capacity as specified in 40 CFR Part 60, Subpart Kb. **(R 336.1213(3), 40 CFR 60.116(b))**
5. Applicable monitoring and recordkeeping provisions as specified in 40 CFR Part 63, Subpart S. **(40 CFR 63.453, 40 CFR 63.454, R 336.1213(3))**

See Appendix 7-1

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. Applicable reporting requirements as specified in 40 CFR Part 63, Subpart S. **(40 CFR 63.455, R 336.1213(3))**
5. The permittee shall complete 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. 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 336.12001(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. **(R 336.2001(4))**
7. The permittee shall submit two complete test reports 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))**

See Appendix 8-1

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. SV25039S	30 ²	179.5 ²	R 336.1901 40 CFR 63.445(c)

IX. OTHER REQUIREMENT(S)

1. The air cleaning devices shall be maintained and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law. The permittee shall carry out an Inspection and Maintenance Program, including keeping of records of inspections done, problems found, repairs done, and/or corrective action taken. **(R 336.1301, R 336.1910, R 336.1213(3))**
2. The permittee must comply with the applicable requirements of 40 CFR Part 63, Subpart A – General Provisions, as indicated in 40 CFR Part 63, Table 1 to Subpart S – General Provisions Applicability to Subpart S. **(40 CFR 63.440(g))**
3. The permittee shall comply with applicable requirements of 40 CFR 63.445 Standards for the Bleaching Stage Equipment (EUS25) at all times. Except during periods of SSM. **(40 CFR 63.445)**
4. There shall be no visible emissions except uncombined water vapor from the Bleaching Stage Equipment (EUS25) or the Chlorine Dioxide Plant (EUB25).² **(R 336.1301, R 336.1201)**

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).

**FGLK29 - Lime Kiln System
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

The Lime Kiln System (FGLK29) includes the Lime Kiln (EULK29) and two Lime Storage Bins (EULKI29), one for hot lime storage, one for purchased lime storage. The Lime Kiln System processes lime mud from the Reausticizing System to regenerate calcium oxide. Evaporator condensate is used for lime mud washing. Filtrate from lime mud washing, known as weak wash, is used in the Bleaching System and the Chemical Recovery Furnace System as an air scrubbing medium. Lime mud is mixed, washed, and fed to the Lime Kiln where it is converted to calcium oxide. Calcium oxide is conveyed by bucket elevator to the lime storage bin. From the storage bins, calcium oxide is utilized in the Reausticizing Process. The Lime Kiln is fired with natural gas and/or fuel oil. The Lime Kiln acts as a backup incineration device for the Thermal Oxidizer System.

Emission Units: EULK29 and EULKI29

POLLUTION CONTROL EQUIPMENT

Venturi scrubber and mist eliminator on EULK29. A common baghouse dust collector serves EULKI29.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. HAP Metals measured as PM*	0.064 gr/dscf corrected to 10% oxygen on a 3-hour average	3-Hour Average	EULK29	SC V.1	40 CFR 63.861 40 CFR 63.6(f) 40 CFR 63.862(a)(1)(i)(c) 40 CFR 63.862(a)(1)(ii)
2. PM	0.20 lb / 1000 lbs of exhaust gases measured at operating conditions ²	Hourly	EULK29	SC V.1	R 336.1201 R 336.1331
3. PM	0.10 lb / 1000 lbs of exhaust gas measured at operating conditions ²	Hourly	EULKI29	SC V.1	R 336.1331
4. SO ₂	9 pph ²	Hourly	EULK29	SC III.1	R 336.1201
5. Total Reduced Sulfur	20 ppmv corrected to 10% oxygen on a 12-hour average ²	12-Hour Average	EULK29	SC VI.1	R 336.1201

* Either of the following are acceptable:

- a. 0.064 gr/dscf corrected to 10% oxygen on a 3-hour average at all times as specified in 40 CFR 63.864(k)(2)
- OR

- b. Alternate Particulate Matter (PM) emission limits may be established for each existing recovery furnace, smelt dissolving tank, and lime kiln that operates 6,300 hours per year or more as provided under 40 CFR 63.862(a)(1)(ii), subject to limitations specified.² **(40 CFR 63.862(a)(1)(ii), 40 CFR 63.865(a), 40 CFR 63.865(b))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall not operate EULK29 unless the venturi scrubber and mist eliminator are operating properly.² **(R 336.1201, R 336.1910)**

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 Particulate Matter (PM) emission rates from FGLK29 by testing at the owner’s expense, in accordance with the Department requirements. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 63, Subpart A and MM. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
- 2. The permittee shall verify the FGLK29 emission rates from FGLK29, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
- 3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall monitor and record the total reduced sulfur concentration from EULK29 exhaust gases on a continuous basis in a manner and with instrumentation acceptable to the AQD. Although the source is not subject to the NSPS (40 CFR Part 60, Subpart BB), the monitoring shall utilize the quality assurance/quality control activities of 40 CFR Part 60, Appendix F, Procedure 1 as a guideline. Daily calibrations shall be conducted in accordance with 40 CFR Part 60, Appendix F, Procedure 1, Section 4. A Cylinder gas audit shall be conducted once each calendar quarter in accordance with 40 CFR Part 60, Appendix F, Procedure 1 Section 5.1.2 in lieu of performing a relative accuracy test audit.¹ **(R 336.1901)**
- 2. The permittee shall install, calibrate, maintain and operate a continuous monitoring system to measure the pressure drop across the scrubber and the scrubbing liquid flow rate at least once every successive 15-minute period using the procedures in 40 CFR 63.8. **(40 CFR 63.864(e)(10))**
- 3. The permittee shall maintain operating parameters within the range established according to 40 CFR 63.864(j). The source will be considered in violation of the standards in 40 CFR 63.862 if six or more 3-hour average parameter values within any semi-annual reporting period are outside the established operating range, at all

times.. No more than one exceedance will be attributed to any 24-hour period. **(40 CFR 63.864(k)(2)(iii), 40 CFR 63.864(k)(3))**

4. The permittee shall implement corrective action when any 3 hour average parameter value is outside the range of values established as provided in 40 CFR 63.864(l). **(40 CFR 63.864(k)(1)(ii))**
5. The permittee shall maintain the records specified in 40 CFR 63.866(b)(c) in addition to the record keeping requirements of 40 CFR 63.10(b)(2). **(40 CFR 63.866(b)-(c))**
6. The permittee shall establish scrubber differential pressure and flow operating ranges as specified in 40 CFR 63.864(j) and 40 CFR 63.865. The operating ranges are the ranges determined during the last performance test approved by the Administrator. **(40 CFR 63.864(j))**
7. The monitoring device used for the continuous measurement of the pressure drop of the gas stream across the scrubber must be certified by the manufacturer to be accurate to within a gage pressure of ± 500 pascals (± 2 inches of water gage pressure). **(40 CFR 63.864(e)(10)(i))**
8. The permittee shall continuously measure pressure drop and record for a daily average as an indicator of proper operation of the EULK129 baghouse. The indicator range is a minimum of 0.25 inches of water column (0.25 "WC) based on a daily average or a range determined during the most recent performance test which showed compliance with the emission limits and approved by the AQD. **(40 CFR 64.6(c)(1)(i and ii))**
9. The pressure gauge shall continuously monitor the differential pressure across the baghouse. The averaging period is daily. The gauge shall be calibrated annually or according to manufacturer's specifications and/or good engineering practice whichever is more frequent. **(40 CFR 64.6(c)(1)(iii))**
10. The monitoring device used for continuous measurement of the scrubbing liquid flow rate must be certified by the manufacturer to be accurate within ± 5 percent of the design scrubbing liquid flow rate. **(40 CFR 63.864(e)(10)(ii))**
11. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). The corrective actions are specified in facility's Title V Inspection and Maintenance (I&M) Plan. **(40 CFR 64.7(d))**
12. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**
13. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
14. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

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 the applicable notifications and reports specified in 40 CFR 63.9 and 40 CFR 63.10. The permittee shall submit a quarterly excess emissions report if measured parameters meet any of the conditions specified in 40 CFR 63.864(k)(1) or (2). When no exceedances of parameters have occurred, permittee shall submit a semiannual report stating that no excess emissions occurred during the reporting period. **(40 CFR 63.867)**
5. Each semiannual report of monitoring and deviations as specified under the CAM requirements shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**
6. Each semiannual report of monitoring deviations as specified under the CAM requirements shall include summary information on the number, duration, and cause of CAM exceedances/excursions in the reporting period; and the corrective actions taken in response. If there were no excursions/exceedances in the reporting period, then this report shall include a statement that there were no excursions/exceedances. **(40 CFR 64.9(a)(2)(i))**

See Appendix 8-1

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. SV29037S	56 ²	147.6 ²	R 336.1901 40 CFR 63.861 40 CFR 63.862

IX. OTHER REQUIREMENT(S)

1. The air cleaning devices shall be maintained and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control Rules and existing law. The permittee shall carry out an Inspection and Maintenance Program, including keeping of records of inspections done, problems found, repairs done, and/or corrective action taken. **(R 336.1301, R 336.1331, R 336.1910, R 336.1213(3))**
2. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart A – General Provisions which are identified in 40 CFR Part 63, Table 1 to Subpart MM – General Provisions Applicability to Subpart MM. **(40 CFR 63.860(c))**
3. The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
Expiration Date: September 22, 2026
PTI No: MI-PTI-A0884-2021b

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

Footnotes:

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

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

**FGSIRICE - SI RICE Units
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

The Spark Ignition Emergency Engine Group (FGSIRICE) consists of 2 spark ignition engines, The Lime Kiln Emergency Drive Motor (EULKSIRICE) and the EOC Back-up Generator (EUEOCSIRICE). The engines are used to provide mechanical work or power a generator in emergency situations. Both engines are 4 stroke lean burn <250 HP.

Emission Units: EULKSIRICE, EUEOCSIRICE

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The Permittee shall not exceed the operational limits specified below. The operational limits apply to each engine.

Operational Status	Limit*	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
a. Emergency	Unlimited hours	Annually	Each Emergency Spark Ignition Engine	SC VI.2	40 CFR 63.6640(f)(1)
b. Non-emergency	50-hours	Annually	Each Emergency Spark Ignition Engine	SC VI.2	40 CFR 63.6640(f)(3)
c. Maintenance Checks and Readiness Testing	100-hours	Annually	Each Emergency Spark Ignition Engine	SC VI.2	40 CFR 63.6640(f)(2)(i)
d. Emergency Demand Response	100-hours	Annually	Each Emergency Spark Ignition Engine	SC VI.2	40 CFR 63.6640(f)(2)(ii)
e. Periods of voltage or frequency deviation >5% of standard	100-hours	Annually	Each Emergency Spark Ignition Engine	SC VI.2	40 CFR 63.6640(f)(2)(iii)

*The combination of operational hours for non-emergency purposes must not exceed 100-hours per calendar year.²
(40 CFR 63.6640(f)(2))

IV. DESIGN/EQUIPMENT PARAMETER(S)

- 1. The permittee shall install a non-resettable hour meter on each engine in the EUSIENG group. **(40 CFR 63.6595(a)(1), 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. The permittee shall keep a record of the hours of operation recorded through the non-resettable hour meter documenting the following:
 - a. The hours spent for emergency operation.
 - b. What classified the operation as emergency
 - c. The hours spent for non-emergency operation
 - d. For emergency demand response and voltage or frequency deviation use, document notification the emergency situation and the date, start time, and end time of the engine operation for these purposes. **(40 CFR 63.6655(f))**
- 2. The permittee shall keep a record of the maintenance conducted on each RICE. **(40 CFR 63.6655 (e))**

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. 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 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

- 1. The engine oil and filter shall be changed every 500-hours, or annually, whichever is sooner. **(40 CFR 63.6602)**
- 2. The spark plugs shall be inspected every 1,000-hours, or annually, whichever is sooner. **(40 CFR 63.6602)**
- 3. All belts and hoses shall be inspected and replaced if necessary, every 500-hours, or annually, whichever is sooner. **(40 CFR 63.6602)**
- 4. The permittee shall demonstrate continuous compliance with work or management practices by doing the following:
 - a. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
Expiration Date: September 22, 2026
PTI No: MI-PTI-A0884-2021b

- b. Develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 63.6655(d))**

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).

**FGCIRICE - CI RICE Unit
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

The Compression Ignition Emergency Engine Group (FGCIRICE) consists of 4 compression ignition engines: the E1 Emergency Lift Pump (EUE1CIRICE), the Water Treatment Building Emergency Fire Water Pump (EUFW1CIRICE), the Administrative Building Emergency Fire Water Pump (EUFW2CIRICE), and the Turbine Turning Gear Back-up Generator (EUTTGCIRICE). The engines are used to provide mechanical work and to power pumps (e.g., fire water pump).in emergency situations. All engines are 4 stroke lean burn <250 HP.

Emission Units: EUE1CIRICE, EUFW1CIRICE, EUFW2CIRICE, EUTTGCIRICE

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not exceed the operational limits specified below. The operational limits apply to each engine.

Operational Status	Limit*	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
a. Emergency	Unlimited hours	Annually	Each Emergency Compression Ignition Engine	SC VI.2	40 CFR 63.6640(f)(1)
b. Non-emergency	50-hours	Annually	Each Emergency Compression Ignition Engine	SC VI.2	40 CFR 63.6640(f)(3)
c. Maintenance Checks and Readiness Testing	100-hours	Annually	Each Emergency Compression Ignition Engine	SC VI.2	40 CFR 63.6640(f)(2)(i)
d. Emergency Demand Response	100-hours	Annually	Each Emergency Compression Ignition Engine	SC VI.2	40 CFR 63.6640(f)(2)(ii)
e. Periods of voltage or frequency deviation >5% of standard	100-hours	Annually	Each Emergency Compression Ignition Engine	SC VI.2	40 CFR 63.6640(f)(2)(iii)

*The combination of operational hours for non-emergency purposes must not exceed 100-hours per calendar year²
(40 CFR 63.6640(f)(2))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The Permittee shall install a non-resettable hour meter on each engine in the EUCIENG. **(40 CFR 63.6595(a)(1), 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. The permittee shall keep a record of the hours of operation recorded through the non-resettable hour meter documenting the following:
 - a. The hours spent for emergency operation.
 - b. What classified the operation as emergency.
 - c. The hours spent for non-emergency operation.
 - d. For emergency demand response and voltage or frequency deviation use, document notification the emergency situation and the date, start time, and end time of the engine operation for these purposes. **(40 CFR 63.6655(f))**
2. The permittee shall keep a record of the maintenance conducted on each RICE. **(40 CFR 63.6655 (e))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. 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 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The engine oil and filter shall be changed every 500-hours, or annually, whichever is sooner. **(40 CFR 63.6602)**
2. The air filter shall be inspected every 1,000-hours, or annually, whichever is sooner. **(40 CFR 63.6602)**
3. All belts and hoses shall be inspected and replaced if necessary, every 500-hours, or annually, whichever is sooner. **(40 CFR 63.6602)**
4. The permittee shall demonstrate continuous compliance with work or management practices by doing the following:
 - a. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
Expiration Date: September 22, 2026
PTI No: MI-PTI-A0884-2021b

- b. Develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 63.6655(d))**

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).

**FGBMACTB09B11 - Boiler 9 and Boiler 11
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Hybrid suspension grate burners designed to burn wet biomass/bio-based solid fuel requirements for existing boilers and process heaters rated at 10 MMBTU/hr or greater at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD. These existing boilers or process heaters burn at least 10 percent biomass or bio-based solids on an annual heat input basis in combination with solid fossil fuels, liquid fuels, or gaseous fuels.

Emission Units: EU9B03, EU11B68

POLLUTION CONTROL EQUIPMENT

Over-fired Air System (OFA) modified 2012, Multiclone and Electrostatic Precipitator on EU11B68.

Multiclone and two wet scrubbers on the EU9B03 boiler exhaust.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Hydrogen Chloride (HCl)	2.2 x 10 ⁻² lb/MMBTU of heat input *	Hourly	EU11B68 EU9B03	SC V.2 SC V.8 SC VI.1 SC VI.2	40 CFR 63.7500 40 CFR Part 63, Subpart DDDDD, Table 2.1.a
2. Mercury	5.7 x 10 ⁻⁶ lb/MMBTU of heat input *	Hourly	EU11B68 EU9B03	SC V.2 SC V.8 SC VI.1 SC VI.2	40 CFR 63.7500 40 CFR Part 63, Subpart DDDDD, Table 2.1.b
3. Filterable PM	0.44 lb /MMBTU heat input *	Hourly	EU11B68 EU9B03	SC V.2 SC V.8 SC VI.1 SC VI.2	40 CFR 63.7500 40 CFR Part 63, Subpart DDDDD, Table 2.13.b
4. CO	3,500 ppmv on a dry gas basis corrected to 3% O ₂ *	Hourly	EU11B68 EU9B03	SC V.2 SC VI.1 SC VI.2	40 CFR 63.7500 40 CFR Part 63, Subpart DDDDD, Table 2.13.a

* The emission limits apply at all times except during startup and shutdown.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The emission limits, work practice standards, and operating limits apply at all times of operation, except during periods of startup and shutdown, during which time the permittee must comply with the work practice standards

Section 1 – Billerud Escanaba LLC

in items 5 and 6 in Table 3 of 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7500(f), 40 CFR 63.7530(h), 40 CFR 63.7540(d))**

2. The permittee must operate and maintain each existing hybrid suspension grate burners designed to burn wet biomass/bio-based solid fuel unit in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the AQD that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR Part 63.7500(a)(3))**
3. The permittee shall conduct an annual tune up of each boiler or process heater as specified below. The 5-year tune-up shall be no more than 61-months after the previous tune-up. **(40 CFR 63.7515(d))**
 - a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune up or may delay the burner inspection until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7540(a)(10)(i))**
 - b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
 - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). **(40 CFR 63.7540(a)(10)(iii))**
 - d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
 - e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**
4. If a boiler or process heater is not operating on the required date for a tune-up, the permittee must conduct a tune up within 30 calendar days of startup of that boiler or process heater. **(40 CFR 63.7540(a)(13))**
5. The permittee shall maintain the 30-day rolling average operating load of each unit such that it does not exceed 110 percent of the highest hourly average operating load recorded during the performance test. **(40 CFR 63.7540(a), 40 CFR Part 63, Subpart DDDDD, Table 4.7)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee must install, operate, and maintain an oxygen trim system in accordance with the manufacturer's recommendations. The permittee shall operate an oxygen trim system with the oxygen level set no lower than the lowest hourly average oxygen concentration measured during the most recent CO performance test as the operating limit for oxygen in the combustion device. **(40 CFR 63.7505(d), 40 CFR 63.7525(a)(7))**
2. For EU11B68 the permittee must install, operate, certify and maintain in a satisfactory manner a COMS to monitor and record opacity on a continuous basis. The monitor shall be operated in accordance with the procedures in 40 CFR Part 60, Appendix B and the site-specific monitoring plan. The permittee shall not exceed an opacity of 10 percent or the highest hourly average opacity reading measured during the most recent performance test run demonstrating compliance with the PM emission limitation (daily block average). **(40 CFR 63.7525(c), 40 CFR 63.7540(a), 40 CFR Part 63, Subpart DDDDD, Table 4.4.a)**
3. For EU9B03 the permittee shall install, calibrate, maintain, and operate in a satisfactory manner device(s) to monitor and record the scrubber pressure drop and a flow monitoring system on a continuous basis. The monitors shall be operated in accordance with procedures outlined in 40 CFR 63.7525(d), (e), and (f) and the site-specific monitoring plan. The permittee shall maintain the 30-day rolling average pressure drop and the 30-day rolling average liquid flow rate at or above the lowest one-hour average pressure drop and the lowest one-hour average liquid flow rate, respectively, measured during the most recent performance test demonstrating compliance with

the PM emission limitation. **(40 CFR 63.7525(d), (e), and (f), 40 CFR 63.7540(a), 40 CFR Part 63, Subpart DDDDD, Table 4.1)**

V. TESTING/SAMPLING

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

1. The permittee must demonstrate compliance with all applicable emission limits using performance stack testing, fuel analysis, or continuous monitoring systems (CMS) as defined in Table 8 of 40 CFR Part 63, Subpart DDDDD, where applicable. **(40 CFR 63.7505(c))**
2. The permittee shall verify HCl, mercury, PM, and CO emission rates from FGBMACTB09B11 by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 63, Subpart DDDDD, Table 5.1
CO	40 CFR Part 63, Subpart DDDDD, Table 5.5
HCl	40 CFR Part 63, Subpart DDDDD, Table 5.3
Mercury	40 CFR Part 63, Subpart DDDDD, Table 5.4

Any alternate method, or a modification to the test methods in 40 CFR Part 63, Subpart DDDDD, Table 5 must be approved by EPA per 40 CFR 63.7570(b)(2). No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. 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. This report must also verify that the operating limits for each boiler or process heater have not changed or provide documentation of revised operating limits established during the performance test. **(40 CFR 63.7515(a) and (f), 40 CFR 63.7520, 40 CFR Part 63, Subpart DDDDD, Table 7)**

3. The permittee shall verify annually the HCl, mercury, PM, and CO emission rates from each emission unit annually. Annual performance tests must be completed no more than 13-months after the previous performance test. If the performance tests for HCl, mercury, PM, and CO for at least 2 consecutive years show that emissions are at or below 75 percent of the emission limit for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, the permittee may choose to conduct performance tests for the pollutant every third year. Each such performance test must be conducted no more than 37-months after the previous performance test. **(40 CFR 63.7510(c), 40 CFR 63.7515(a) and (b))**
4. For any boiler or process heater that has not operated for more than one year since the previous compliance demonstration, the permittee must complete the subsequent compliance demonstration no later than 180 days after the re-start of the affected source. **(40 CFR 63.7515(g))**
5. If a performance test shows emissions exceeded the emission limit or 75 percent of the emission limit in SC I.1 through SC I.4 for a pollutant, the permittee must conduct annual performance tests for that pollutant until all performance tests over a consecutive 2-year period meet the required level (at or below 75 percent of the emission limit in SC I.1 through SC I.4). **(40 CFR 63.7515(c))**
6. The permittee must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor. **(R 336.1213(3), 40 CFR 63.7545(d))**
7. The permittee must conduct performance tests at representative operating load conditions while burning the type of fuel or mixture of fuels that has the highest content of chlorine and mercury) and the permittee must demonstrate compliance and establish the operating limits based on these performance tests. These requirements could result in the need to conduct more than one performance test. Following each performance

test and until the next performance test, the permittee must comply with the operating limit for operating load conditions specified in Table 4 of 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7520(c))**

8. The permittee must conduct a monthly fuel analysis for mercury and HCl according to 40 CFR 63.7521 for each type of fuel burned. The permittee may comply with this monthly requirement by completing the fuel analysis any time within the calendar month as long as the analysis is separated from the previous analysis by at least 14 calendar days. If burning a new type of fuel, conduct a fuel analysis before burning the new type of fuel in the boiler or process heater. If each of 12 consecutive monthly fuel analyses demonstrates 75 percent or less of the compliance level, the permittee may decrease the fuel analysis frequency to quarterly for that fuel. If any quarterly sample exceeds 75 percent of the compliance level or the permittee begins burning a new type of fuel, return to monthly monitoring for that fuel, until 12-months of fuel analyses are again less than 75 percent of the compliance level. If sampling is conducted on one day per month, samples should be no less than 14 days apart, but if multiple samples are taken per month, the 14-day restriction does not apply. **(40 CFR 63.7515(e), 40 CFR Part 63, Subpart DDDDD, Table 8.8)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee must develop, implement, and maintain a site-specific monitoring plan according to the requirements listed below, for the use of any CMS (including CEMS, COMS, or Continuous Parameter Monitoring System (CPMS)) used to comply with 40 CFR Part 63 Subpart DDDDD.
 - a. For each CMS, the permittee must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan that addresses design, data collection, and the quality assurance and quality control elements outlined in 40 CFR 63.8(d) and the elements as listed below.
 - i. Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device). **(40 CFR 63.7505(d)(1)(i))**
 - ii. Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems. **(40 CFR 63.7505(d)(1)(ii))**
 - iii. Performance evaluation procedures and acceptance criteria (e.g., calibrations, accuracy audits, analytical drift). **(40 CFR 63.7505(d)(1)(iii))**
 - b. In the site-specific monitoring plan, the permittee must also address the items listed below.
 - i. Ongoing operation and maintenance procedures. **(40 CFR 63.7505(d)(2)(i))**
 - ii. Ongoing data quality assurance procedures. **(40 CFR 63.7505(d)(2)(ii))**
 - iii. Ongoing recordkeeping and reporting procedures. **(40 CFR 63.7505(d)(2)(iii))**
 - c. The permittee must conduct a performance evaluation of each CMS in accordance with the site-specific monitoring plan. **(40 CFR 63.7505(d)(3))**
 - d. The permittee must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan. **(40 CFR 63.7505(d)(4))**
2. The permittee must operate the monitoring system and collect data at all required intervals at all times that each boiler or process heater is operating and compliance is required, except for periods of monitoring system malfunctions or out of control periods (see 40 CFR 63.8(c)(7)), and required monitoring system quality assurance or control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in the site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The permittee is required to complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable. **(40 CFR 63.7535(b))**
3. The permittee may not use data recorded during periods of startup and shutdown, monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in data averages and calculations used to report emissions or operating levels. The permittee must record and make available upon request results

of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with the site-specific monitoring plan. The permittee must use all the data collected during all other periods in assessing compliance and the operation of the control device and associated control system. **(40 CFR 63.7535(c))**

4. Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements. In calculating monitoring results, do not use any data collected during periods of startup and shutdown, when the monitoring system is out of control as specified in the site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities. The permittee must calculate monitoring results using all other monitoring data collected while the process is operating. The permittee must report all periods when the monitoring system is out of control in the annual report. **(40 CFR 63.7535(d))**
5. The permittee must keep records as listed below.
 - a. A copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted. **(40 CFR 63.7555(a)(1))**
 - b. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations. **(40 CFR 63.7555(a)(2))**
6. For each CEMS, COMS, and continuous monitoring system the permittee must keep the following records listed below.
 - a. Records described in 40 CFR 63.10(b)(2)(vii) through (xi). **(40 CFR 63.7555(b)(1))**
 - b. Monitoring data for continuous opacity monitoring system during a performance evaluation. **(40 CFR 63.7555(b)(2))**
 - c. Previous (*i.e.*, superseded) versions of the performance evaluation plan. **(40 CFR 63.7555(b)(3))**
 - d. Request for alternatives to relative accuracy test for CEMS. **(40 CFR 63.7555(b)(4))**
 - e. Records of the date and time that each deviation started and stopped. **(40 CFR 63.7555(b)(5))**
7. The permittee must keep the records required in Table 8 of 40 CFR Part 63, Subpart DDDDD including records of all monitoring data and calculated averages for applicable operating limits, such as opacity, pressure drop, pH, and operating load, to show continuous compliance with each emission limit and operating limit that applies to the permittee. **(40 CFR 63.7555(c))**
8. For each boiler or process heater, the permittee must keep the applicable as listed below.
 - a. The permittee must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used. **(40 CFR 63.7555(d)(1))**
 - b. A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 7 of 40 CFR 63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. The permittee can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the permittee must calculate chlorine fuel input for each boiler and process heater. **(40 CFR 63.7555(d)(3))**
 - c. A copy of all calculations and supporting documentation of HCl emission rates, using Equation 16 of 40 CFR 63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. The permittee can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the permittee must calculate the HCl emission rate, for each boiler and process heater. **(40 CFR 63.7555(d)(3))**
 - d. A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 8 of 40 CFR 63.7530, that were done to demonstrate continuous compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of

maximum mercury fuel input or mercury emission rates. The permittee can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the permittee must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater. **(40 CFR 63.7555(d)(4))**

- e. A copy of all calculations and supporting documentation of mercury emission rates, using Equation 13 of 40 CFR 63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. The permittee can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the permittee must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater. **(40 CFR 63.7555(d)(4))**
 - f. If the permittee chooses to stack test less frequently than annually, the permittee must keep a record that documents that the emissions in the previous stack tests were less than 75 percent of the applicable emission limit, and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year. **(40 CFR 63.7555(d)(5))**
 - g. Records of the occurrence and duration of each malfunction of the boiler or process heater, or of the associated air pollution control and monitoring equipment. **(40 CFR 63.7555(d)(6))**
 - h. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler or process heater, air pollution control, or monitoring equipment to its normal or usual manner of operation. **(40 CFR 63.7555(d)(7))**
 - i. The permittee must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown. **(40 CFR 63.7555(d)(9))**
 - j. The permittee must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown. **(40 CFR 63.7555(d)(10))**
9. Records must be in a form suitable and readily available for expeditious review. **(40 CFR 63.7560(a))**
 10. The permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**
 11. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3 years. **(40 CFR 63.7560(c))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee must submit the following reports that applies to 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. A semiannual compliance report must contain the information below depending on how the facility chooses to comply with the limits set in this rule. **(40 CFR 63.7550(a), 40 CFR 63.7550(b), 40 CFR 63.7550(c))**
 - a. If the facility is subject to the requirements of a tune-up, they must submit a compliance report with the information in SC VII.4.e.i through iii, xiii, and xvi. **(40 CFR 63.7550(c)(1))**
 - b. If a facility is complying with the fuel analysis, they must submit a compliance report with the information in SC VII.4.e.i through iii, v, ix, x, xii, xiv, xvi, and xvii. **(40 CFR 63.7550(c)(2))**

- c. If a facility is complying with the applicable emissions limit with performance testing, they must submit a compliance report with the information in SC VII.4.e.i through iii, v, vi, vii, viii, x, xii, xiv, xvi, and xvii. **(40 CFR 63.7550(c)(3))**
- d. If a facility is complying with an emissions limit using a CMS the compliance report must contain the following information in SC VII.4.e.i through iii, iv, v, x through xii, xiv through xvii. **(40 CFR 63.7550(c)(4))**
- e. The compliance reports must contain the following information, as applicable:
 - i. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
 - ii. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
 - iii. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
 - iv. If the permittee uses a CMS, the permittee must include the monitoring equipment manufacturer(s) and model numbers and the date of the last CMS certification or audit. **(40 CFR 63.7550(c)(5)(v))**
 - v. The total fuel use by each individual boiler or process heater subject to an emission limit within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by the EPA or the basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure. **(40 CFR 63.7550(c)(5)(vi))**
 - vi. If the permittee is conducting performance tests once every 3 years consistent with 40 CFR 63.7515(b) or (c), the date of the last 2 performance tests and a statement as to whether there have been any operational changes since the last performance test that could increase emissions. **(40 CFR 63.7550(c)(5)(vii))**
 - vii. A statement indicating that the permittee burned no new types of fuel in an individual boiler or process heater subject to an emission limit. **(40 CFR 63.7550(c)(5)(viii))**
 - ix. A summary of any monthly fuel analyses conducted to demonstrate compliance according to 40 CFR 63.7521 and 40 CFR 63.7530 for individual boilers or process heaters subject to emission limits, and any fuel specification analyses conducted according to 40 CFR 63.7521(f) and 63.7530(g). **(40 CFR 63.7550(c)(5)(x))**
 - x. If there are no deviations from any emission limits or operating limits in 40 CFR Part 63, Subpart DDDDD that apply to the permittee, a statement that there were no deviations from the emission limits or operating limits during the reporting period. **(40 CFR 63.7550(c)(5)(xi))**
 - xi. If there were no deviations from the monitoring requirements including no periods during which the CMS were out of control as specified in 40 CFR 63.8(c)(7), a statement that there were no deviations and no periods during which the CMS were out of control during the reporting period. **(40 CFR 63.7550(c)(5)(xii))**
 - xii. If a malfunction occurred during the reporting period, the report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the permittee during a malfunction of a boiler, process heater, or associated air pollution control device or CMS to minimize emissions in accordance with 40 CFR 63.7500(a)(3), including actions taken to correct the malfunction. **(40 CFR 63.7550(c)(5)(xiii))**
 - xiii. Include the date of the most recent tune-up for each unit subject to the requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10). Include the date of the most recent burner inspection if it was not done on an annual period and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**
 - xiv. For each reporting period, the compliance reports must include all of the calculated 30-day rolling average values for CO CEMS. **(40 CFR 63.7550(c)(5)(xvi))**
 - xv. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii))**
 - xvi. For each instance of startup or shutdown include the information required to be monitored, collected, or recorded. **(40 CFR 63.7550(c)(5)(xviii))**
- 5. For each deviation from an emission limit or operating limit in 40 CFR Part 63, Subpart DDDDD that occurs at an individual boiler or process heater where not using a CMS to comply with that emission limit or operating limit, or from the work practice standards for periods of startup and shutdown, the compliance report must additionally contain the following information:
 - a. A description of the deviation and which emission limit or operating limit, or work practice standard from which deviated. **(40 CFR 63.7550(d)(1))**

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
Expiration Date: September 22, 2026
PTI No: MI-PTI-A0884-2021b

- b. Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken. **(40 CFR 63.7550(d)(2))**
 - c. If the deviation occurred during an annual performance test, provide the date the annual performance test was completed. **(40 CFR 63.7550(d)(3))**
6. For each deviation from an emission limit, operating limit, monitoring requirement, and the site-specific monitoring plan occurring at an individual boiler or process heater where using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the following information:
- a. The date and time that each deviation started and stopped and description of the nature of the deviation (i.e., what deviated from). **(40 CFR 63.7550(e)(1))**
 - b. The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks. **(40 CFR 63.7550(e)(2))**
 - c. The date, time, and duration that each CMS was out of control, including the information in 40 CFR 63.8(c)(8). **(40 CFR 63.7550(e)(3))**
 - d. The date and time that each deviation started and stopped. **(40 CFR 63.7550(e)(4))**
 - e. A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period. **(40 CFR 63.7550(e)(5))**
 - f. A characterization of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes. **(40 CFR 63.7550(e)(6))**
 - g. A summary of the total duration of CMS's downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period. **(40 CFR 63.7550(e)(7))**
 - h. A brief description of the source for which there was a deviation. **(40 CFR 63.7550(e)(8))**
 - i. A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation. **(40 CFR 63.7550(e)(9))**
7. The permittee must submit the reports according to the procedures listed below:
- a. Within 60 days after the date of completing each performance test, submit the results of the performance tests, including any associated fuel analyses, required by 40 CFR Part 63, Subpart DDDDD by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator shall submit the results of the performance test to the Administrator. **(40 CFR 63.7550(h)(1))**
 - b. The permittee must submit all reports required by Table 9 of 40 CFR Part 63, Subpart DDDDD electronically using CEDRI that is accessed through the EPA's CDX (<https://cdx.epa.gov/>). However, if the reporting form specific to 40 CFR Part 63, Subpart DDDDD is not available in CEDRI at the time that the report is due, submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The permittee must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. At the discretion of the Administrator, submit these reports, to the Administrator in the format specified by the Administrator. **(40 CFR 63.7550(h)(3))**
8. The permittee must report the results of performance tests and the associated fuel analyses within 60 days after the completion of the performance tests. This report must also verify that the operating limits for each boiler or process heater have not changed or provide documentation of revised operating limits established according to Table 7 to 40 CFR Part 63, Subpart DDDDD, as applicable. The reports for all subsequent performance tests must include all applicable information required in 40 CFR 63.7550. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5), 40 CFR 63.7515(f))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and DDDDD for Industrial, Commercial, and Institutional Boilers and Process Heaters. **(40 CFR Part 63, Subparts A and DDDDD)**

Footnotes:

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

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

**FGBMACTB07B08 - Boiler 7 and Boiler 8
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Requirements for existing boilers and process heaters that are designed to burn gas 1 subcategory fuel with a heat input capacity of 10 MMBTU/hr or greater at major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). Units designed to burn gas 1 subcategory fuels include boilers or process heaters that burn only natural gas, refinery gas, and/or Other Gas 1 fuels. Units that burn liquid fuel for testing or maintenance purposes for less than a total of 48-hours per year, or that burn liquid fuel during periods of curtailment or supply interruptions are included in this definition.

Emission Units: EU7B17, EU8B13

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall conduct an annual tune up of each boiler or process heater as specified below. The annual tune-up shall be no more than 13-months after the previous tune-up. **(40 CFR 63.7500(a)(1), 40 CFR 63.7515(d), Table 3 of 40 CFR Part 63, Subpart DDDDD)**
 - a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown. Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36-months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**
 - b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
 - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36-months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**
 - d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
 - e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**

2. If the unit is not operated on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. **(40 CFR 63.7540(a)(13))**
3. The permittee shall conduct a tune-up of each emission unit that has an oxygen trim system installed in FG BMACTB07B08 of the burner(s) and combustion controls, as applicable, every 5 years as specified in 40 CFR 63.7540(a)(10)(i) through (vi). **(40 CFR 63.7500(d), 40 CFR 63.7540(a)(12), Table 3 of 40 CFR Part 63, Subpart DDDDD)**
 - a. Each 5-year tune-up must be conducted no more than 61-months after the previous tune-up. **(40 CFR 63.7515(d))**
 - b. The permittee may delay the burner inspection until the next scheduled or unscheduled unit shutdown, but each burner must be inspected at least once every 72-months. **(40 CFR 63.7540(a)(12))**
 - c. If the unit is not operating on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. **(40 CFR 63.7540(a)(13))**
4. At all times, the permittee must operate and maintain each existing gas 1 boiler or process heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

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 must keep a copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or annual compliance report that the permittee submitted. **(40 CFR 63.7555(a)(1))**
2. If the permittee uses an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under 40 CFR Part 63, Other Gas 1 fuel, or gaseous fuel subject to another subpart of 40 CFR Part 60 or Part 61, or Part 65, the permittee must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies. **(40 CFR 63.7555(h))**
3. The permittee shall maintain on-site and submit, if requested by the AQD, an annual tune-up report containing the information listed below.
 - a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
 - b. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**
 - c. The type and amount of fuel used over the 12-months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**
4. The permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). **(40 CFR 63.7560(a))**

5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**
6. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2-years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3-years. **(40 CFR 63.7560(c))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. If the permittee intends to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of 40 CFR Part 63, Part 60, Part 61, or Part 65, or Other Gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575, the permittee must submit a notification of alternative fuel use within 48-hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575. The notification must include the information as listed below.
 - a. Company name and address. **(40 CFR 63.7545(f)(1))**
 - b. Identification of the affected unit. **(40 CFR 63.7545(f)(2))**
 - c. Reason the permittee is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared, or the natural gas supply interruption began. **(40 CFR 63.7545(f)(3))**
 - d. Type of alternative fuel that the permittee intends to use. **(40 CFR 63.7545(f)(4))**
 - e. Dates when the alternative fuel use is expected to begin and end. **(40 CFR 63.7545(f)(5))**
5. The permittee must submit boiler and process heater tune-up compliance reports to the appropriate AQD District Office. The reports must be postmarked or submitted by March 15th and must cover the period of January 1 through December 31 of the reporting year. For new units, the first report should cover the period of startup to December 31 of the reporting year. Compliance reports must also be submitted to EPA using the Compliance and Emissions Data Reporting Interface (CEDRI) which is accessed through EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). **(40 CFR 63.7550(b))**
6. The permittee must submit a compliance report containing the following information.
 - a. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
 - b. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
 - c. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
 - d. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**
 - e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii))**
7. The permittee must submit all reports required by Table 9 of this subpart electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, submit the report to the EPA Region V at the appropriate address listed in 40 CFR 63.13 and to the appropriate AQD District Office. **(40 CFR 63.7550(h)(3))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters as specified in 40 CFR Part 63, Subparts A and DDDDD. **(40 CFR Part 63, Subparts A and DDDDD)**

Footnotes:

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

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

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.

Emission Unit/Flexible Group ID	Non-Applicable Requirement	Justification
EU7B17 - Boiler 7	Rule 801 - Emission of Oxides of Nitrogen from Stationary Sources	Rule 801 does not apply to Boiler 7 because the rule does not apply to fossil fuel fired emission units with maximum rated heat input capacity of 250 million BTU per hour or less. The approximate heat input capacity of the Boiler 7 is 154 million BTU per hour, significantly below the criteria for applicability of the rule.
EG7B17 - Boiler 7	Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971	40 CFR Part 60, Subpart D applies to certain fossil-fuel fired steam generators with a heat input rate of more than 250 million BTU per hour. The approximate heat input capacity of Boiler 7 is 154 million BTU per hour, significantly below the criteria for applicability of the standard
EU8B13 – Boiler 8	40 CFR Part 60, Subparts D and Db	The Boiler 8 was installed in 1968, prior to the applicability date of Subpart D (1971) and Subpart Db (1984).
EU9B03 – Boiler 9	40 CFR Part 60, Subparts D and Db	The Boiler 9 was installed in 1970, prior to the applicability date of Subpart D (1971) and Subpart Db (1984).
EUM25 – Methanol Storage	40 CFR Part 63, Subpart EEEE	EPA has interpreted that methanol storage associated with ClO ₂ systems are subject to 40 CFR Part 63, Subpart S and therefore are not also subject to Subpart EEEE.
EULK29 – Lime Kiln System	EGLE Rule 336.1801	The Lime Kiln does not meet the R336.1801 applicability criteria because it is rated for less than 250 MMBtu/hr heat input.
EULK29 – Lime Kiln System	40 CFR Part 60, Subpart BB	The Lime Kiln was installed in 1972, prior to the Applicability date of September 24, 1976.
EURF15 – Chemical Recovery Furnace System	40 CFR Part 60, Subpart Db	No modifications have been made to the Chemical Recovery Furnace after June 19, 1984 that would make it subject to this rule.
EU1PM32 - #1 Paper Machine System EU3PM07 - #3 Paper Machine System EU4PM64 - #4 Paper Machine System EU2PD40 - #2 Pulp Dryer	40 CFR Part 63, Subpart JJJJ	EPA has interpreted that paper machine/size press operations are considered substrate formation and are not subject to Subpart JJJJ. (per Applicability Determination Memorandum from Mr. Michael Alushin, EPA Office of Compliance, to Mr. Timothy Hunt
EU1C36 - #1 Coater System EU3C27 - #3 Coater System EU4C65 - #4 Coater System	40 CFR Part 63, Subpart HHHHH	The coater systems are subject to 40 CFR Part 63, Subpart JJJJ and are exempt from Subpart HHHHH pursuant to 40 CFR 63.7985 (a)(4).

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
 Expiration Date: September 22, 2026
 PTI No: MI-PTI-A0884-2021b

Emission Unit/Flexible Group ID	Non-Applicable Requirement	Justification
EUCIENG - Emergency CI Engines	40 CFR Part 60, Subpart IIII	Owners and operators of CI engines are subject to these requirements if commencement of construction or modification takes place after July 11, 2005. All emergency engines were installed on or before 2001 and are not subject to Subpart IIII.
EUSIENG - Emergency SI Engine	40 CFR Part 60, Subpart JJJJ	Owners and operators of SI engines are subject to these requirements if commencement of construction or modification takes place after June 12, 2006. All emergency engines were installed on or before 2001 and are not subject to Subpart JJJJ.
EU7B17 - Boiler 7 EUB13 - Boiler 8 EUSB03 - Wood residue surge bin for Boiler 9 EUCH68 - Coal Handling EUFH68 - Fuel handling for Boiler 11 EU1S68 - #1 Coal Silo for Boiler 11 EU2S68 - #2 Coal Silo for Boiler 11 EU3S68 - #3 Coal Silo for Boiler 11 EU1AS68 - #1 Ash Silo for Boiler 11 EU2AS68 - #2 Ash Silo for Boiler 11 EU1SB14 - #1 Chip Surge Bin EU2SB14 - #2 Chip Surge Bin EUCS14 - Chip Thickness Screening System EURMP61 - Refiner Mechanical Pulping System EUCS61 - Chip Silo for Refiner Mechanical Pulping System EUSB61 - Chip Surge Bin for Refiner Mechanical Pulping System EU1PM32 - #1 Paper Machine System EU1C36 - #1 Coater System EUSS43 - #1 Coater Dry Starch System EU2PD40 - #2 Pulp Dry System EU3PM07 - #3 Paper Machine System EU1SS08 - #1 Starch Silo	40 CFR Part 64 All Sections	The emission units are not subject to Compliance Assurance Monitoring requirements based on the uncontrolled emission rate and/or existing monitoring requirements.

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
 Expiration Date: September 22, 2026
 PTI No: MI-PTI-A0884-2021b

Emission Unit/Flexible Group ID	Non-Applicable Requirement	Justification
EU1M08 - #1 Starch Make down Tank EU3C27 - #3 Coater System EU2SS08 - #2 Starch Silo EU3SS08 - #3 Starch Silo EU2M08 - #2 Starch Make down Tank EU4PM64 - #4 Paper Machine System EU4C65 - #4 Coater System EUSS66 - Starch Storage for #4 Coater System EUBB05 - Evaporator System EUME05 - Misc Evaporator System Devices EUBB22 - Digester System EUOT22 - Digester Other Devices EUMT22 - Misc Turpentine Handling Devices EUBB33 - Steam Stripping System NSPS Devices EUMC33 - Misc Condensate Stripping Devices EUSA33 - Soda Ash Storage Tank EUCOND - Condensate Collection and Treatment System EUBB23 - Brownstock NSPS Devices EUS25 - Bleaching Stage Equipment EUB25 - Chlorine Dioxide Generator Plant EUED25 - Extraction Devices EUM25 - Methanol Storage EULKI29 - Lime Storage Bins EUPB - Maintenance Paint Spray Booth EULKSIRICE - Lime Kiln Emergency Drive Motor EUEOCSIRICE - EOC Backup Generator		

Section 1 – Billerud Escanaba LLC

ROP No: MI-ROP-A0884-2021b
 Expiration Date: September 22, 2026
 PTI No: MI-PTI-A0884-2021b

Emission Unit/Flexible Group ID	Non-Applicable Requirement	Justification
EUE1CIRICE - E1 Emergency Lift Pump EUFW1CIRICE - Water Treatment Building Emergency Fire Water Pump EUFW2CIRICE - Administrative Building Emergency Fire Water Pump EUTTGCIRICE - Turbine Turning Gear Backup Generator		

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 1-1. Acronyms and Abbreviations

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

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

Appendix 2-1. 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 3-1. 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 4-1. 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 5-1. 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 6-1. Permits to Install

At the time of permit issuance, no Permits to Install have been issued to this facility. Therefore, this appendix is not applicable.

The following table lists the ROP amendments or modifications issued after the effective date of ROP No. MI-ROP-A0884-2021.

Permit to Install Number	ROP Revision Application Number - Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
184-16A	202100220 / May 20, 2022	Incorporate PTI No. 184-16A which was for an air system upgrade (ASU) to the existing combustion air system on No.10 Recovery Furnace (Recovery Boiler).	EURF15

Appendix 7-1. 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 8-1. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use 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.

SECTION 2 – OMYA, INCORPORATED

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))**

Section 2 – Omya, Incorporated

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 state 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.

Section 2 – Omya, Incorporated

ROP No: MI-ROP-A0884-2021b

Expiration Date: September 22, 2026

PTI No: MI-PTI-A0884-2021b

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))**

Section 2 – Omya, Incorporated

ROP No: MI-ROP-A0884-2021b
Expiration Date: September 22, 2026
PTI No: MI-PTI-A0884-2021b

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

Revisions

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

Reopenings

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

Renewals

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

Stratospheric Ozone Protection

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

Risk Management Plan

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

Emission Trading

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

Permit to Install (PTI)

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

Footnotes:

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

B. SOURCE-WIDE CONDITIONS

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

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

SOURCE-WIDE CONDITIONS

DESCRIPTION

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

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

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 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall carry out a **Fugitive Dust Control Program** to control fugitive dust emissions from the plant roadways, material storage piles, and other operations throughout the plant, including keeping of records of fugitive dust control activities and dates carried out.² **(R 336.1201, R 336.1371, R 336.1372, R 336.1901, R 336.1213(3))**
2. Each Responsible Official shall certify annually the compliance status of the stationary source with all stationary Source-Wide conditions. This certification shall be included as part of the annual certification of compliance as required in the General Conditions in Part A and Rule 213(4)(c). **(R 336.1213(4)(c))**

Footnotes:

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

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

C. EMISSION UNIT SPECIAL CONDITIONS

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

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

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCARBONATORS	Three carbonators, 2 of which may be used at a time for PCC production. Carbon dioxide will be provided to the carbonators from the Lime Kiln or from liquid CO2. Gas from the lime kiln will be pre-treated with a water spray scrubber/gas cooler which removes more particulate than added by the carbonation process.	12-06-2013	FGPCCPLANT
EULIME	Lime handling and limestone storage silo.	12-06-2013	FGPCCPLANT
EUCOOLTWR	One Cooling tower used to remove heat produced during PCC production.	12-06-2013	FGPCCPLANT
EUROAD	Fugitive emissions increase at the facility roads due to PCC Plant.	12-06-2013	FGPCCPLANT

**EUCARBONATORS
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Three carbonators, 2 of which may be used at a time for PCC production. Carbon dioxide will be routed to the carbonators from the Lime Kiln or from liquid CO₂. Non-particulate emissions are from the Lime Kiln gas and are not a product of PCC production.

Flexible Group ID: FGCCPLANT

POLLUTION CONTROL EQUIPMENT

Gas from the lime kiln will be pre-treated with a packed water spray scrubber/gas cooler which removes more particulate than added by the carbonation process. The exhaust from EUCARBONATORS is treated with a de-mister before reaching the PCC stack.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.011 gr/dscf ²	6-Minute Average	EUCARBONATORS	SC VI.1	R 336.1205(1) R 336.1331
2. PM ₁₀	1.13 pph ²	6-Minute Average	EUCARBONATORS	SC VI.1	R 336.1205(1) R 336. 2803 R 336. 2804
3. PM _{2.5}	1.13 pph ²	6-Minute Average	EUCARBONATORS	SC VI.1	R 336.1205(1) R 336. 2803 R 336. 2804

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUCARBONATORS using combustion gas from the Lime Kiln unless the wet scrubber treating the Lime Kiln exhaust is installed, maintained, and operated in a satisfactory manner.² (R 336.1205, R 336.1331, R 336.1910)
2. The permittee shall not operate EUCARBONATORS unless the demisters located downstream from the carbonators are installed, maintained, and operated in a satisfactory manner.² (R 336.1205, R 336.1331, R 336.1910)

V. TESTING/SAMPLING

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

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 perform weekly non-certified visible opacity, (non-water vapor), observations as an indicator of proper operations of the process wet scrubber and demisters.² (R 336.1205, R 336.1331, R 336.1910)
2. The permittee shall keep, in a satisfactory manner, records of all visible opacity emission readings for EUCARBONATORS. At a minimum, records shall include the date, time, name of observer/reader, and status of visible emissions. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² (R 336.1205, R 336.1301, R 336.1331)

See Appendix 7-2

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. 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 8-2

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-PCC	28 ²	195.01 ²	R 336.2803 R 336.2804

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EULIME
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Lime silos used in the precipitated calcium carbonate process to store lime prior to use.

Flexible Group ID: FGPCPLANT

POLLUTION CONTROL EQUIPMENT

Fabric Filter Baghouse

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.01 gr/dscf ²	6-Minute Average	EULIME	SC VI.1 SC VI.2	R 336.1205(1) R 336.1331
2. PM10	0.15 lb/hr ²	6-Minute Average	EULIME	SC VI.1	R 336.1205(1) R 336.2803 R 336.2804
3. PM2.5	0.15 lb/hr ²	6-Minute Average	EULIME	SC VI.1	R 336.1205(1) R 336.2803 R 336.2804

* Test Protocol shall specify averaging time

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EULIME unless the emissions are routed to a baghouse which is installed, maintained, and operated in a satisfactory manner.² (R 336.1205, R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))
2. The permittee shall not route silo emissions to the baghouse for more than 12-hours per day.² (R 336.1205, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall perform weekly non-certified visible opacity observations as an indicator of proper operations of the baghouse.² (R 336.1205, R 336.1331, R 336.1910)
2. The permittee shall maintain a record of the baghouse filter vendor’s certification of the grain loading factor for the bags being used in the baghouse for EULIME.² (R 336.1205)
3. The permittee shall keep, in a satisfactory manner, a record of the hours that EULIME emissions are routed to the baghouse. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² (R 336.1205, 40 CFR 52.21(c) & (d))
4. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for EULIME. At a minimum, records shall include the date, time, name of observer/reader, and status of visible emissions. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² (R 336.1205, R 336.1301, R 336.1331)

See Appendix 7-2

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. 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 8-2

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-SILO	10 ²	83.99 ²	R 336.2803 R 336.2804

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**EUCOOLTWR
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Mechanical induced draft cooling tower used to reduce the temperature of the Lime Kiln exhaust gases and carbonators.

Flexible Group ID: FGCCPLANT

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.25 lb/hr ²	Hourly	EUCOOLTWR	SC VI.2 SC V.1	R 336.1205(1) R 336.1331
2. PM10	0.25 lb/hr ²	Hourly	EUCOOLTWR	SC VI.2 SC V.1	R 336.1205(1) R 336. 2803 R 336. 2804
3. PM2.5	0.25 lb/hr ²	Hourly	EUCOOLTWR	SC VI.2 SC V.1	R 336.1205(1) R 336. 2803 R 336. 2804

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall maintain the total dissolved solids (TDS) concentration of the circulating water to below 1,656 ppm.² (**R 336.1205, R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c)(d)**)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain the cooling tower in EUCOOLTWR-2 with drift eliminators with a vendor-certified maximum drift rate of 0.01 percent or less.² (**R 336.1205, R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c)(d)**)

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 test PM emissions at the request of the District Supervisor.

See Appendix 5-2

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 vendor’s cooling tower design basis for the life of the cooling tower, EUCOOLTWR. (R 336.1205)
2. The permittee shall monitor the following for the cooling tower in EUCOOLTWR, using a method acceptable to the AQD District Supervisor.
 - a. On a weekly basis, parameters needed to determine the total dissolved solids concentration of the circulating water.
 - b. On a monthly basis, parameters needed to determine the cooling loop flowrate. (R 336.1205, R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))
3. The permittee shall calculate the PM and PM-10 emission rates from the cooling tower in EUCOOLTWR monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor. (R 336.1205, R 336.1331, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))

See Appendix 7-2

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. 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 8-2

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. SVCOOLTWR	144 ²	31.31 ²	R 336.2803 R 336.2804

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**EUROAD
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Fugitive emissions increase at the facility roads due to PCC Plant.

Flexible Group ID: FGCCPLANT

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.13 lb/hr ²	Hourly	EUROAD	SC VI.1	R 336.1205(1) R 336.1331
2. PM10	0.03 lb/hr ²	Hourly	EUROAD	SC VI.1	R 336.1205(1) R 336. 2803 R 336. 2804
3. PM2.5	0.01 lb/hr ²	Hourly	EUROAD	SC VI.1	R 336.1205(1) R 336. 2803 R 336. 2804

* Test Protocol shall specify averaging time.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

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 perform noncertified daily Visible Emission observations during times of road traffic at the PCC plant.

See Appendix 7-2

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. 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 8-2

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).

D. FLEXIBLE GROUP SPECIAL CONDITIONS

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

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

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGPCCPLANT	All process equipment utilized to produce precipitated calcium carbonate. Process operations started July 5, 2014.	EUCARBONATORS EULIME EUCOOLTWR EUROAD

**FGPCCPLANT
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

All process equipment utilized to produce precipitated calcium carbonate.

Emission Units: EUCARBONATORS, EULIME, EUCOOLTWR, EUROAD

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM10	6.46 tpy ²	Calendar Year	FGPCCPLANT	SC VI.2	R 336.1205(1) R 336. 2803 R 336. 2804 R 336.2818
2. PM2.5	6.40 tpy ²	Calendar Year	FGPCCPLANTS2	SC VI.2	R 336.1205(1) R 336. 2803 R 336. 2804 R 336.2818

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

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 number and weight of trucks transporting material to and from the emission units in FGPCCPLANT.² (R 336.1205, R 336.1331, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))
2. The permittee shall calculate and keep records of the annual emissions of PM10 and PM2.5 from EUCARBONATORS, EULIME, EUCOOLTWR, and EUROAD per 40 CFR 52.21(r)(6)(iii), in tons per year on a

Section 2 – Omya, Incorporated

ROP No: MI-ROP-A0884-2021b
Expiration Date: September 22, 2026
PTI No: MI-PTI-A0884-2021b

calendar year basis, as required in Special Condition I.1, and I.2. Calculations and record keeping shall begin in July, 2014 and shall continue for 5 years.² **(40 CFR 52.21(r)(6)(iii), R 336.2818)**

3. The permittee shall calculate and keep records of the annual emissions of PM10 and PM2.5 from EULK29 per 40 CFR 52.21(r)(6)(iii), in tons per year on a calendar year basis. Calculations and record keeping shall begin in July, 2014 and shall continue for 5 years.² **(40 CFR 52.21(r)(6)(iii), R 336.2818)**

See Appendix 7-2

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. 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 records of PM2.5 and PM10, emissions from EUCARBONATORS, EULIME, EUCOOLTWR, EUROAD, and EULK29 in tons per calendar year to both the AQD Permit Section Supervisor and the AQD District Supervisor within 60 days following the end of each calendar year, if both of the following apply:
 - a. The calendar year actual emissions of PM2.5 and PM10, exceed the baseline actual emissions (BAE) by a significant amount, and
 - b. The calendar year actual emissions differ from the pre-construction projection. The pre-construction projection is the sum of the projected actual emissions from each existing emission unit included in the Actual-to-Projected-Actual Applicability Test used for FGPCPLANT as described in Appendix A.
5. The report shall contain the name, address, and telephone number of the facility; the annual emissions as calculated pursuant to FGPCPLANT, SC VI.2; and any other information the owner or operator wishes to include (i.e., an explanation why emissions differ from the pre-construction projection).² **(R 336.2818, 40 CFR Part 52.21(r)(6)(iii))**

See Appendix 8-2

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:

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall install and maintain fencing, warning signs, video surveillance, regular patrols and/or other measures as necessary to prevent unauthorized individuals from entering the plant property and buildings.² **(R 336.1201(3), R 336. 2803, R 336. 2804, 40 CFR 52.21)**

Footnotes:

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

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

E. NON-APPLICABLE REQUIREMENTS

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

APPENDICES

Appendix 1-2. Acronyms and Abbreviations

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

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

Appendix 2-2. 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 3-2. 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 4-2. 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 5-2. 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 6-2. Permits to Install

At the time of permit issuance, no Permits to Install have been issued to this facility. Therefore, this appendix is not applicable.

Appendix 7-2. Emission Calculations

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

Data Rounding

Any readings, measurements, calculations, and records required by this permit and Department's Rules for Air Pollution Control shall be rounded to the nearest significant digit specified, i.e., for a limit specified as 0.5, 0.54 shall be 0.5, and 0.55 shall be 0.6.

Appendix 8-2. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use 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.

Section 2 – Omya, Incorporated

ROP No: MI-ROP-A0884-2021b
Expiration Date: September 22, 2026
PTI No: MI-PTI-A0884-2021b

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.