App No. 202400320

ATLAS | **MOLDED PRODUCTS**
A Division of Atlas Roofing Corporation

December 4, 2024

Heidi Hollenbach, District Supervisor
Michigan Department of Environment, Great Lakes, and Energy
Air Quality Division
350 Ottawa Avenue, NW, Unit 10
Grand Rapids, MI 49503-2341

RE: ROP Rule 216(2) Minor Modification
ROP MI-ROP-N1794-2024
Atlas Molded Products, a Division of Atlas Roofing Corporation
Byron Center, Michigan

Dear Ms. Hollenbach:

Atlas Molded Products, a Division of Atlas Roofing Corporation, is submitting for your review the enclosed ROP Rule 216(2) Minor Modification request for our facility located in Byron Center, Michigan.

On November 27, 2024, PTI 136-24 was issued for the installation of a new shape mold, EUMOLD9, replacing an existing shape mold, EUMOLD6.

If you should have any questions during your review of this information, please contact me at (616) 583-1337 or by email at tvanhoeven@atlasroofing.com; or contact our environmental consultant, David Sykes, P.E., of Access Environmental Solutions, Inc., at (662) 368-1286 or by email at david.sykes@accessenvironmental.com.

Thank you for your assistance in this matter.

Sincerely,
Atlas Molded Products, a Division of Atlas Roofing Corporation

Tim Van Hoeven
Plant Manager

Enclosure

8240 Byron Center Ave SW | Byron Center, MI 49315 | Phone: 616.878.1568 | Fax: 616.878.9942

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

RENEWABLE OPERATING PERMIT APPLICATION
C-001: CERTIFICATION

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

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

Form Type **C-001**	SRN N1794

Stationary Source Name Atlas Molded Products, a Division of Atlas Roofing Corporation	
City Byron Center	County Kent

SUBMITTAL CERTIFICATION INFORMATION

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

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

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

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

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

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

AI 001

CONTACT INFORMATION

Contact Name Tim Van Hoeven	Title Plant Manager
Phone number 616-583-1337	E-mail address tvanhoeven@atlasroofing.com

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

Responsible Official Name Tim Van Hoeven			Title Plant Manager	
Mailing address 8240 Byron Center Road				
City Byron Center	State MI	ZIP Code 49315	County Kent	Country USA

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

Tim Van Hoeven

Signature of Responsible Official

12-06-2024

Date

EGLE

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

App No. 202400320

RENEWABLE OPERATING PERMIT
M-001: RULE 215 CHANGE NOTIFICATION
RULE 216 AMENDMENT/MODIFICATION APPLICATION

This information is required by Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment.

1. SRN N1794	2. ROP Number MI-ROP-N1794-2024	3. County Kent
4. Stationary Source Name	Atlas Molded Products, a Division of Atlas Roofing Corporation	
5. Location Address	8240 Byron Center Road	6. City Byron Center

7. Submittal Type - *The submittal must meet the criteria for the box checked below. Check only one box. Attach a mark-up of the affected ROP pages for applications for Rule 216 changes.*

- ☐ **Rule 215(1) Notification of change.** *Complete Items 8 – 10 and 14*
- ☐ **Rule 215(2) Notification of change.** *Complete Items 8 – 10 and 14*
- ☐ **Rule 215(3) Notification of change.** *Complete Items 8 – 11 and 14*
- ☐ **Rule 215(5) Notification of change.** *Complete Items 8 – 10 and 14*
- ☐ **Rule 216(1)(a)(i)-(iv) Administrative Amendment.** *Complete Items 8 – 10 and 14*
- ☐ **Rule 216(1)(a)(v) Administrative Amendment.** *Complete Items 8 – 14. Results of testing, monitoring & recordkeeping must be submitted. See detailed instructions.*
- ☒ **Rule 216(2) Minor Modification.** *Complete Items 8 – 12 and 14*
- ☐ **Rule 216(3) Significant Modification.** *Complete Items 8 – 12 and 14, and provide any additional information needed on ROP application forms. See detailed instructions.*
- ☐ **Rule 216(4) State-Only Modification.** *Complete Items 8 – 12 and 14*

8. Effective date of the change. (MM/DD/YYYY) *See detailed instructions.* 12/11/2024	9. Change in emissions? ☒ Yes ☐ No

10. Description of Change - *Describe any changes or additions to the ROP, including any changes in emissions and/or pollutants that will occur. If additional space is needed, complete an Additional Information form (AI-001).*

(1) Addition of Emissions Unit ID EUMOLD9 authorized by PTI 136-24; (2) Removal of EUMOLD6--replaced by EUMOLD9--and it's stack; (3) Removal of EUEMBOSSING3 and EUEMBOSSING4 that were decommissioned in 2020; (4) Renaming of EUBOILER4 to EUBOILER5; and (5) Correction of stack SV0205 to "EUMOLD5 Vacuum".

11. New Source Review Permit(s) to Install (PTI) associated with this application? ☒ Yes ☐ No

If Yes, enter the PTI Number(s) 136-24 ____ - ____ - ____ - ____ - ____

12. Compliance Status - *A narrative compliance plan, including a schedule for compliance, must be submitted using an AI-001 if any of the following are checked No.*

a. Is the change identified above in compliance with the associated applicable requirement(s)? ☒ Yes ☐ No

b. Will the change identified above continue to be in compliance with the associated applicable requirement(s)? ☒ Yes ☐ No

c. If the change includes a future applicable requirement(s), will timely compliance be achieved? ☒ Yes ☐ No

13. Operator's Additional Information ID - *Create an Additional Information (AI) ID for the associated AI-001 form used to provide supplemental information.* **AI 001**

14. Contact Name	Telephone No.	E-mail Address
Tim Van Hoeven	616-583-1337	tvanhoeven@atlasroofing.com

15. This submittal also updates the ROP renewal application submitted on ____/____/____ ☐ Yes ☒ N/A
(If yes, a mark-up of the affected pages of the ROP must be attached.)

NOTE: A CERTIFICATION FORM (C-001) SIGNED BY A RESPONSIBLE OFFICIAL MUST ACCOMPANY ALL SUBMITTALS

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

EGLE

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

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

	SRN: N1794	Section Number (if applicable):

1. Additional Information ID
AI-001

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

AMP was granted PTI 136-24 to install a new EPS shape mold identified as Emissions Unit ID EUMOLD9. This new mold is part of Flexible Group ID FGEPS. The purpose of this ROP modification is to incorporate EUMOLD9 into the ROP. EUMOLD6 will be replaced by EUMOLD9. Therefore, EUMOLD6 and its stack are proposed to be removed from the ROP.

EUEMBOSSER3 and EUEMBOSSER4 were taken out of service in 2020. It is requested that they be removed from the ROP.

It is requested to change the name of EUMBOILER4 to EUBOILER5.

It is requested to change the description of stack SV0205 from "EUMOLD7 Vacuum" to "EUMOLD5 Vacuum". This correction was noted in the comments on the Draft ROP but was not included in the final version. The facility's equipment inventory in MiEnviro correctly designates stack SV0205 as EUMOLD5 Vacuum.

App No. 202400320

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

EFFECTIVE DATE: January 12, 2024

ISSUED TO

Atlas Molded Products, A Division of Atlas Roofing Corporation

State Registration Number (SRN): N1794

LOCATED AT

8240 Byron Center Avenue SW, Byron Center, Kent County, Michigan 49315

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-N1794-2024

Expiration Date: January 12, 2029

Administratively Complete ROP Renewal Application
Due Between July 12, 2027 and July 12, 2028

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-N1794-2024

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

Heidi Hollenbach, Grand Rapids District Supervisor

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AUTHORITY AND ENFORCEABILITY

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

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

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

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

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

A. GENERAL CONDITIONS

Permit Enforceability

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

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

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

General Provisions

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

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

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

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

5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq.,

and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

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

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

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

Equipment & Design

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

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

Emission Limits

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

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

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

Testing/Sampling

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

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

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

Monitoring/Recordkeeping

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

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

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which 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 annual compliance certification (pursuant to Rule 213(4)(c)) shall be submitted to the USEPA through the USEPA's Central Data Exchange (CDX) using the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through CDX (https://cdx.epa.gov/), unless it contains confidential business information then use the following address: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**

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

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

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

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

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

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

Permit Shield

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

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

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

d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**

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

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

Revisions

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

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

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

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

Reopenings

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

Renewals

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

Stratospheric Ozone Protection

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

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

Risk Management Plan

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

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

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

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

Emission Trading

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

Permit to Install (PTI)

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

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

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

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

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

B. SOURCE-WIDE CONDITIONS

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

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

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
EUEXPANDER5	Hirsch Vacutrans Polystyrene expander with VOC emissions controlled by a shared regenerative thermal oxidizer	07-01-2002 / 05-22-2008	FGEPS
EUEXPANDER6	Hirsch PX 14000 batch expander with VOC emissions controlled by a shared regenerative thermal oxidizer	02-12-2019 / NA	FGEPS
EUBEADAGING	Bead aging area for EPS beads prior to molding	09-27-1984 / NA	FGEPS
EUMOLD5	Berndorf 33" x 216" polystyrene block molding machine with a capacity of 4,000 pounds of beads per hour	08-01-1997 / 5-22-2008	FGEPS
~~EUMOLD6~~	~~Berndorf 40" by 48" polystyrene shape press with a capacity of 198 pounds of beads per hour~~	~~05-22-2008 / NA~~	~~FGEPS~~
EUMOLD7	Berndorf 33" x 288" polystyrene block molding machine with a capacity of 5,200 pounds of beads per hour	01-01-2012 / NA	FGEPS
EUMOLD8	Idro 43-inch polystyrene block molding machine with a capacity of 5,370 pounds of beads per hour	02-25-2022 / NA	FGEPS
EUMOLD9	Modix MDX 230 EPS shape molding machine with a capacity of389 pounds of beads per hour	TBD	FGEPS
EURTO	Regenerative thermal oxidizer used to control all emissions from EUEXPANDER5 and EUEXPANDER6	10-28-21 / NA	FGEPS
EUBOILER45	12.56 MMBTU/hr natural gas-fired boiler	03-09-2019 / NA	FGEPS
EUEMBOSSING1	Embossing line, where shapes or textures are burned into sheets of expanded polystyrene	07-01-1987 / 07-01-1991	FGRULE290
~~EUEMBOSSING3~~	~~Embossing line, where shapes or textures are burned into sheets of expanded polystyrene~~	~~07-01-1987 / 07-01-1991~~	~~FGRULE290~~
~~EUEMBOSSING4~~	~~Embossing line, where shapes or textures are burned into sheets of expanded polystyrene~~	~~07-01-1987 / 07-01-1991~~	~~FGRULE290~~

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
FGEPS	Polystyrene bead expansion and molding operations consisting of two expanders, four molds, and the bead aging area, with a regenerative thermal oxidizer to control emissions from the expanders and process steam supplied by a 12.56 MMBTU/hr boiler.	EUEXPANDER5 EUEXPANDER6 EUBEADAGING EUMOLD5 ~~EUMOLD6~~ EUMOLD7 EUMOLD8 EUMOLD9 EURTO ~~EUBOILER4~~EUBOILER5
FGRULE290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a and Rule 290. Emission units installed/modified before December 20, 2016, may show compliance with Rule 290 in effect at the time of installation/modification.	EUEMBOSSING1 ~~EUEMBOSSING3~~ ~~EUEMBOSSING4~~

FGEPS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Polystyrene bead expansion and molding operations consisting of all expanders, all molds, and the bead aging area, with a regenerative thermal oxidizer used to control emissions from the expanders and process steam supplied by a 12.56 MMBTU/hr boiler.

Emission Units: EUEXPANDER5, EUEXPANDER6, EUBEADAGING, EUMOLD5, ~~EUMOLD6~~, EUMOLD7, EUMOLD8, EUMOLD9, EURTO, ~~EUBOILER4~~EUBOILER5

POLLUTION CONTROL EQUIPMENT

Regenerative thermal oxidizer, to control emissions from EUEXPANDER5 and EUEXPANDER6.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	272.4 lb/hr[3]	Daily hours of operation average	FGEPS	SC V.1, SC V.2, SC V.3, SC VI.2-9	**R 336.1220(1)(a)(i)(A) R 336.1702 R 336.2908**
2. VOC	374.5 tpy[3]	12-month rolling time period as determined at the end of each calendar month	FGEPS	SC V.1, SC V.2, SC V.3, SC VI.2-9	**R 336.1220(1)(a)(i)(A) R 336.1702 R 336.2908**
3. VOC	1.86 pph[2]	Hourly	EURTO	SC IV.2, SC V.1	**R 336.1205 R 336.1225 R 336.1702(a)**
4. Styrene	80 lb/month[1]	Calendar month	EUMOLD8	SC V.6, SC VI.15, SC VI.16, SC VI.17	**R 336.1225**
5. VOC	23.9 tpy[2]	12-month rolling time period as determined at the end of each calendar month	EUMOLD8	SC V.5, SC VI.15, SC VI.16, SC VI.17	**R 336.1205 R 336.1702(a)**
6. VOC	4.87% loss during molding[2]	Average over all bead densities	EUMOLD8	SC V.6	**R 336.1205 R 336.1225 R 336.1702(a)**
7. VOC	11.8 tpy	12-month rolling time period as determined at the end of each calendar month	EUMOLD9	SC VI.19	**R336.1225 R 336-1702(a)**

II. MATERIAL LIMIT(S)

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

	Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1.	Ethylbenzene processed	16,900 lb/yr[1]	12-month rolling time period as determined at the end of each calendar month	FGEPS	SC VI.12	**R 336.1225(2)**
2.	Styrene processed	84,400 lb/yr[1]	12-month rolling time period as determined at the end of each calendar month	FGEPS	SC VI.13	**R 336.1225(2)**

3. The permittee shall limit the annual throughput of EPS beads in FGEPS at expansion as specified below, based on a 12-month rolling time period as determined at the end of each calendar month.[3] **(R 336.1702, R 336.1220(1)(a)(i)(A), R 336.2908)**

$$\sum_{12-months}\left(\left(\frac{\sum_i (U_i \times V_i)}{100}\times(1-P_w)\right)-\left(\frac{\sum_i (U_i \times V_i)}{100}\times\left(PE\times\frac{DE}{100}\right)+DS\right)\right)\leq 749{,}000\,\text{pounds}$$

Ui = Pounds of EPS beads from lot i used during the calendar month.
V_i = VOC content of EPS beads from lot i, in pounds of VOC per 100 pounds of beads.
P_w = Production-weighted average fraction of VOC retained in product. "Production-weighted average fraction of VOC retained in product" means the average fraction of VOC contained in the raw beads that is retained in the product shipped from the facility for each month's production. This average is determined by dividing the VOC content of each product by the VOC content of the respective raw beads and weighting this ratio by the fraction, by weight, of the month's production that the product constitutes.
PE = Weight fraction of VOC emissions in the raw beads that are emitted during expansion.
DE = VOC destruction efficiency (percent of VOC in the inlet to the thermal oxidizer that is destroyed in the thermal oxidizer) of the thermal oxidizer. The default value for this shall be 98.0 percent; the actual tested value may be used with the approval of the AQD District Supervisor.
DS = Densified scrap. This is the production weighted average of VOC emissions between trimming scrap from the EPS product and the shipping of densified scrap as a secondary product. This is calculated as P_w minus the average fraction of VOC retained in the densified product, times the pounds of densified shipped.

4. The permittee shall limit the annual throughput of EPS beads through EUMOLD8 to 18,500,000 pounds per 12-month rolling time period as determined at the end of each calendar month.[2] **(R 336.1205, R 336.1225, R 336.1702)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Input feed to the expanders shall cease immediately, consistent with safe operating procedures, upon initiation of the regenerative thermal oxidizer bypass. Input feed to the expanders shall not restart until the regenerative thermal oxidizer is back online and functioning properly.[3] **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910, R 336.1220(1)(a)(i)(A), R 336.2908)**

2. The permittee shall not operate more than four (4) block mold machines at any given time.[3] **(R 336.1220(1)(a)(i)(A), R 336.2908)**

3. The permittee shall not operate EURTO unless a malfunction abatement plan (MAP) as described in Rule 911(2), is implemented and maintained.

   a. A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of

the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

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

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

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.[2] **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910, R 336.1911)**

~~4. On and after the commencement of operation of EUMOLD8, the permittee shall not operate EUMOLD4.[2] (R 336.1205)~~

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of EURTO to monitor and record the temperature on a continuous basis, during operation of EURTO.[2] **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

2. The permittee shall not input feed into any expander unless it is vented to the regenerative thermal oxidizer and the regenerative thermal oxidizer is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes maintaining a minimum VOC destruction efficiency in the regenerative thermal oxidizer of 98.0 percent by weight, a minimum combustion temperature of 1500°F and a minimum retention time of 0.63 seconds.[3] **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910, R 336.1220(1)(a)(i)(A), R 336.2908)**

3. The permittee shall equip and maintain EURTO with an audible and visual alarm system to alert operators of regenerative thermal oxidizer bypass.[2] **(R 336.1205, R 336.1225, R 336.1702, R 336.1910)**

V. TESTING/SAMPLING

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

~~1. Before March 23, 2022, the permittee shall verify the VOC emission rates from the expanders and thermal oxidizer and the thermal oxidizer VOC destruction efficiency by testing at the 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. 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 336.1205, R 336.1225, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004)~~

~~2.~~1. The permittee shall verify the VOC emission rates from the expanders and the thermal oxidizer destruction efficiency from EURTO, including the percent of VOC lost from the EPS beads during molding, by testing at owner's expense 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.~~2. The permittee shall determine the VOC content, as received and as shipped, of product from FGEPS. The permittee shall use sampling and analysis methods approved by the AQD District Supervisor. An approved analysis may include, but is not limited to, a Certificate of Analysis obtained from the manufacturer for every batch received. The samples, or batches, shall represent the full range of VOC content of EPS beads used in FGEPS and shall support an estimate of the production-weighted average fraction of VOC retained in product from FGEPS.[3] **(R 336.1702, R 336.1220(1)(a)(i)(A), R 336.2908)**

~~4.~~3. The permittee shall determine the VOC content of the regrind, or densified scrap, from FGEPS. The permittee shall use sampling and analysis methods approved by the AQD District Supervisor. The results shall be submitted to the AQD District Supervisor in an acceptable format within 14 days following the receipt of analytical results.[2] **(R 336.1702)**

~~5.~~4. The permittee shall conduct the required sampling and analysis outlined in SC V.3 and SC V.4 on an annual basis or on an alternate sampling schedule or analysis approved by the AQD District Supervisor.[2] **(R 336.1702)**

~~6. Within 180 days after commencement of trial operation of EUMOLD8, the permittee shall verify the styrene emission rate from EUMOLD8 and the VOC emission rate from EUMOLD8, including the percent of VOC lost from the EPS beads during molding, 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. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, 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 336.1225, R 336.1702, R 336.2001, R 336.2003, R 336.2004)~~

~~7.~~5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.[3] **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1220(1)(a)(i)(A), R 336.2908)**

2. The permittee shall record the daily hours of operation for the EPS process.[2] **(R 336.1702)**

3. The permittee shall record the monthly throughput at pre-expansion for each lot of EPS beads.[3] **(R 336.1205(1), R 336.1702, R 336.1220(1)(a)(i)(A), R 336.2908)**

4. The permittee shall record the total EPS bead throughput at pre-expansion, for each calendar month and for a 12-month rolling time period, as determined at the end of each calendar month.[3] **(R 336.1205(1), R 336.1702, R 336.1220(1)(a)(i)(A), R 336.2908)**

5. The permittee shall record total pounds of regrind shipped and the VOC content of the regrind, for each calendar month and for a 12-month rolling time period, as determined at the end of each calendar month.[3] **(R 336.1205(1), R 336.1702, R 336.1220(1)(a)(i)(A), R 336.2908)**

6. The permittee shall record the pounds of VOC per 100 pounds of EPS beads as received, for each lot of EPS beads used in FGEPS.[3] **(R 336.1205(1), R 336.1702, R 336.1220(1)(a)(i)(A), R 336.2908)**

7. The permittee shall record the weight fraction of the total VOC emissions emitted at pre-expansion and the VOC destruction efficiency of the thermal oxidizer.[3] **(R 336.1205(1), R 336.1702, R 336.1220(1)(a)(i)(A), R 336.2908)**

8. The permittee shall calculate and keep a record of the pounds of VOC per 100 pounds of EPS beads used at pre-expansion, for each calendar month and for a 12-month rolling time period, as determined at the end of each calendar month.[3] **(R 336.1205(1), R 336.1702, R 336.1220(1)(a)(i)(A), R 336.2908)**

9. The permittee shall calculate and keep a record of the total VOC emissions from FGEPS (based on throughput at pre-expansion and the amount of densified scrap shipped), using the method detailed in Appendix A, for each calendar month and a 12-month rolling time period, as determined at the end of each calendar month.[3] **(R 336.1702, R 336.1220(1)(a)(i)(A), R 336.2908)**

10. The permittee shall monitor and record, in a satisfactory manner, the regenerative thermal oxidizer combustion chamber temperature on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee shall keep the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request.[2] **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

11. The permittee shall calibrate, operate and maintain a low temperature alarm, equipped with audible and visible cues on the regenerative thermal oxidizer in accordance with manufacturer's specifications.[2] **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

12. The permittee shall keep the following information on a calendar month basis for FGEPS:
    a. Pounds of each ethylbenzene-containing material used.
    b. Ethylbenzene content, in pounds per pound, of each ethylbenzene-containing material used.
    c. Calculations determining the monthly amount of ethylbenzene processed in pounds per calendar month.
    d. Calculations determining the cumulative amount of ethylbenzene processed during the first 12-months and the annual amount of ethylbenzene processed thereafter, in pounds per 12-month rolling time period as determined at the end of each calendar month.

    The permittee shall keep the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request.[1] **(R 336.1225(2))**

13. The permittee shall keep the following information on a calendar month basis for FGEPS:
    a. Pounds of each styrene-containing material used.
    b. Styrene content, in pounds per pound, of each styrene-containing material used.
    c. Calculations determining the monthly amount of styrene processed in pounds per calendar month.
    d. Calculations determining the cumulative amount of styrene processed during the first 12-months and the annual amount of styrene processed thereafter, in pounds per 12-month rolling time period as determined at the end of each calendar month.

    The permittee shall keep the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request.[1] **(R 336.1225(2))**

14. The permittee shall keep, in a manner satisfactory to the AQD District Supervisor, records of all EURTO bypass events that include the date and time of each bypass, the length of the bypass, and the reason for the bypass.[2] **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

15. The permittee shall keep, in a manner satisfactory to the AQD District Supervisor, monthly and 12-month rolling time period, as determined at the end of each calendar month, records of the EUMOLD8 EPS bead throughput. The permittee shall keep all records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request.[2] **(R 336.1225, R 336.1702(a))**

16. The permittee shall keep, in a manner satisfactory to the AQD District Supervisor, calendar month records of the EUMOLD8 styrene emission rate. The permittee shall keep all records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request.[1] **(R 336.1225)**

17. The permittee shall keep, in a manner satisfactory to the AQD District Supervisor, monthly and 12-month rolling time period, as determined at the end of each calendar month, records of the EUMOLD8 VOC emission rate. The permittee shall keep all records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request.[2] **(R 336.1205, R 336.1702(a))**

18. The permittee shall calculate and keep records of the annual emissions of VOC from FGEPS described in Appendix 3, in tons per calendar year. Calculations and record keeping shall begin the month in which regular operations of EUMOLD8 commence and shall continue for ten (10) years.[2] **(R 336.2818)**

19. The permittee shall keep the following information on a calendar month basis for EUMOLD9:
    a) Pounds of expanded EPS beads processed.
    b) The VOC emission factor used for the expanded EPS beads processed:
        i) The emission factor of 0.007398 pounds of VOC emitted per pound of expanded EPS beads processed.
        ii) An alternate emission factor may be used with the approval of the AQD District Supervisor.
    c) VOC mass emission calculations determining the monthly emission rate in tons per calendar month, and the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

    The permittee shall keep the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request. **(R 336.1205, R 336.1702(a))**

19. The permittee shall conduct weekly inspections of the RTO incinerator and blower, pipework from expansion vessels to the RTO fan, and EUEXPANDER5 and EUEXPANDER6 during production, as specified in the MAP and the CAM Plan. **(40 CFR 64.6(c)(1)(i))**

20. The permittee shall conduct weekly, monthly, quarterly, and semi-annual inspections, part replacements and calibrations of the capture system as specified in the MAP and CAM plan. **(40 CFR 64.6(c)(1)(i))**

21. The permittee shall continuously monitor and record the combustion chamber temperature as an indicator of proper operation of the RTO. The minimum temperature is 1,525°F. **(40 CFR 64.6(c)(1)(i and ii))**

22. The permittee shall evaluate the capture efficiency of the capture system by monitoring the static pressure of the air flow through the EURTO, EUEXPANDER5 and EUEXPANDER6 capture system. This shall be monitored continuously at one-minute intervals on a data acquisition system or other method and recorded continuously. The indicator range is -1.3 to -0.15" water column. **(40 CFR 64.3(a)(2))**

23. The temperature monitor shall continuously monitor the RTO combustion chamber temperature. The averaging period is hourly. The monitor shall be calibrated semi-annually. **(40 CFR 64.6(c)(1)(iii))**

24. The pressure monitoring system shall continuously monitor the capture system static pressure. The averaging period is hourly. The monitor shall be calibrated semi-annually. **(40 CFR 64.6(c)(1)(iii))**

25. The permittee shall record and maintain records of the amount of natural gas combusted in the boiler EUBOILER4 during each calendar month. **(40 CFR 60.48c(g)(2))**

26. An excursion is identified as a departure from the following indicators: **(40 CFR 64.6(c)(2))**
    a. RTO combustion zone temperature measurement of less than 1,525°F.
    b. Any static pressure reading more than -0.15" WC.
    c. Failure to perform inspections, maintenance, replacements, or calibrations as specified in SC VI.19 and SC VI.20.

27. For each control device in operation, the permittee shall conduct bypass monitoring for each bypass line such that the valve or closure method cannot be opened without creating an alarm condition for which a record shall be made. Records of the bypass line that was opened and the length of time the bypass line was opened shall be kept on file. **(40 CFR 64.3(a)(2))**

28. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the regenerative thermal oxidizer 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). Each excursion triggers an audible alarm, shutdown of the expansion process, an assessment of the problem, any necessary corrective actions, and potentially a reporting requirement. An excursion of the duct pressure will cause an audible alarm and will automatically shut down the emissions unit. **(40 CFR 64.7(d))**

29. 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 emission unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**

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

31. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

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

5. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**

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

7. The permittee shall submit records of the annual emission of VOC from FGEPS described in Appendix 4, in tons per calendar year, to the AQD Permit Section Supervisor within 60 days following the end of each reporting year if both the following occur:
   a. The calendar year actual emissions of VOC 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 and the potential emissions from each new emission unit included in the Hybrid Applicability Test used for FGEPS.

   The report shall contain the name, address, and telephone number of the facility (major stationary source); the annual emissions as calculated pursuant to SC VI.18, 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)**

8. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than the startup of EUMOLD8.[2] **(R 336.1201(7)(a))**

See Appendices 4 and 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV0035 (RTO Stack)	22[2]	39[2]	R 336.1225 40 CFR 52.21(c)&(d)
2. SV0201 (EUEXPANDER5 Bypass)	8[2]	45[2]	40 CFR 52.21(c)&(d)
3. SV0202 (EUMOLD5 Blower)	11.5[2]	45[2]	40 CFR 52.21(c)&(d)
4. SV0203 (EUMOLD5 Stack)	16[2]	45[2]	40 CFR 52.21(c)&(d)
5. ~~SV0153 (EUMOLD6)~~	~~20[2]~~	~~10[2]~~	~~40 CFR 52.21(c)&(d)~~
6. SV0204 (~~EUMOLD7~~ EUMOLD7 Vacuum)	12[2]	34.5[2]	40 CFR 52.21(c)&(d)
7. SV0205 (~~EUMOLD7~~ EUMOLD5 Vacuum)	8[2]	40[2]	40 CFR 52.21(c)&(d)
8. SV0029 (EUMOLD7 West End)	16[1]	41[1]	R 336.1901
9. SV0211 (EUEXPANDER6 Bypass)	8	31	40 CFR 52.21(c)&(d)
~~9.~~10. SV0213 (EUMOLD8 Exhaust)	12[2]	38[2]	R 336.1225 40 CFR 52.21(c)&(d)
~~10.~~11. SV0214 (EUMOLD8 Blower)	8.5[2]	38[2]	R 336.1225 40 CFR 52.21(c)&(d)
12. SV0215 (EUMOLD9 Exhaust)	6	35	R 336.1225 40 CFR 52.21(c)&(d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall maintain the monitoring system, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. **(40 CFR 64.7(b))**

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).

[3]This condition is federally enforceable and was established pursuant to Rule 220 as it applied at the time of permitting in 1997. This limit was established under Non-attainment New Source Review which required Lowest Achievable Emissions Rate (LAER) emission offsets for VOCs. Rule 220 has been rescinded, and the current equivalent rule is Rule 336.1908 (R 336.2908).

FGRULE290
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

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

Emission Units installed on or after December 20, 2016: NA

Emission Units installed prior to December 20, 2016: EUEMBOSSING1, ~~EUEMBOSSING3, EUEMBOSSING4~~

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(2)(a)(i))**

2. Any emission unit for which CO2 equivalent emissions are not more than 6,250 tons per month and for which the total uncontrolled or controlled emissions of all other air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(2)(a)(ii))**

   a. For toxic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 micrograms per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(2)(a)(ii)(A))**

   b. For toxic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(2)(a)(ii)(B))**

   c. The emission unit shall not emit any toxic air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(2)(a)(ii)(C))**

   d. For total mercury, the uncontrolled or controlled emissions shall not exceed 0.01 pounds per month from emission units installed on or after December 20, 2016. **(R 336.1290(2)(a)(ii)(D))**

   e. For lead, the uncontrolled or controlled emissions shall not exceed 16.7 pounds per month from emission units installed on or after December 20, 2016. **(R 336.1290(2)(a)(ii)(E))**

3. Any emission unit that emits only particulate air contaminants without initial risk screening levels and other air contaminants that are exempted under Rule 290(2)(a)(i) or Rule 290(2)(a)(ii), if all the following provisions are met: **(R 336.1290(2)(a)(iii))**

   a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(2)(a)(iii)(A))**

b. The visible emissions from the emission unit are not more than 5% opacity in accordance with the methods contained in Rule 303. **(R 336.1290(2)(a)(iii)(B))**

c. The initial threshold screening level for each particulate toxic air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(2)(a)(iii)(C))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The provisions of Rule 290 apply to each emission unit that is operating pursuant to Rule 290. **(R 336.1290)**

2. The following requirements apply to emission units installed on or after December 20, 2016, utilizing control equipment:

   a. An air cleaning device for volatile organic compounds shall be installed, maintained, and operated in accordance with the manufacturer's specifications. Examples include the following: **(R 336.1290(2)(b)(i), R 336.1910)**

      i. Oxidizers and condensers equipped with a continuously displayed temperature indication device.

      ii. Wet scrubbers equipped with a liquid flow rate monitor.

      iii. Dual stage carbon absorption where the first canister is monitored for breakthrough and replaced if breakthrough is detected.

   b. An air cleaning device for particulate matter shall be installed, maintained, and operated in accordance with the manufacturer's specifications or the permittee shall develop a plan that provides to the extent practicable for the maintenance and operation of the equipment in the manner consistent with good air pollution control practices for minimizing emissions. It shall also be equipped to monitor appropriate indicators of performance, for example, static pressure drop, water pressure, and water flow rate. **(R 336.1290(2)(b)(ii), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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 records of the following information for each emission unit for each calendar month using the methods outlined in the EGLE, AQD Rule 290; Permit to Install Exemption Record form (EQP 3558) or in a format that is acceptable to the AQD District Supervisor. **(R 336.1213(3))**

   a. Records identifying each air contaminant that is emitted. **(R 336.1213(3))**

   b. Records identifying if each air contaminant is controlled or uncontrolled. **(R 336.1213(3))**

   c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic. **(R 336.1213(3))**

   d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(2)(a)(ii) and (iii). **(R 336.1213(3))**

e. Records of material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in enough detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. Volatile organic compound emissions from units installed on or after December 20, 2016, shall be calculated using mass balance, generally accepted engineering calculations, or another method acceptable to the AQD District Supervisor. **(R 336.1213(3), R 336.1290(2)(d))**

f. Records are maintained on file for the most recent 2-year period and are made available to the department upon request. **(R 336.1213(3), R 336.1290(2)(e))**

2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information. **(R 336.1213(3))**

   a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit. **(R 336.1290(2)(c), R 336.1213(3))**

   b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate. **(R 336.1213(3))**

3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

See Appendix 4

VII. REPORTING

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

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

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

E. NON-APPLICABLE REQUIREMENTS

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

APPENDICES

Appendix 1. Acronyms and Abbreviations

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO_2e	Carbon Dioxide Equivalent
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
		HAP	Hazardous Air Pollutant
EGLE	Michigan Department of Environment, Great Lakes, and Energy	Hg	Mercury
		hr	Hour
EU	Emission Unit	HP	Horsepower
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallons of Applied Coating Solids	kW	Kilowatt
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	m	Meter
HVLP	High Volume Low Pressure*	mg	Milligram
ID	Identification	mm	Millimeter
IRSL	Initial Risk Screening Level	MM	Million
ITSL	Initial Threshold Screening Level	MW	Megawatts
LAER	Lowest Achievable Emission Rate	NMOC	Non-methane Organic Compounds
MACT	Maximum Achievable Control Technology	NO_x	Oxides of Nitrogen
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	Particulate Matter equal to or less than 10 microns in diameter
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pounds per hour
		ppm	Parts per million
NSPS	New Source Performance Standards	ppmv	Parts per million by volume
NSR	New Source Review	ppmw	Parts per million by weight
PS	Performance Specification	%	Percent
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonable Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO_2	Sulfur Dioxide
SC	Special Condition	TAC	Toxic Air Contaminant
SCR	Selective Catalytic Reduction	Temp	Temperature
SDS	Safety Data Sheet	THC	Total Hydrocarbons
SNCR	Selective Non-Catalytic Reduction	tpy	Tons per year
SRN	State Registration Number	µg	Microgram
TEQ	Toxicity Equivalence Quotient	µm	Micrometer or Micron
USEPA/EPA	United States Environmental Protection Agency	VOC	Volatile Organic Compounds
		yr	Year
VE	Visible Emissions		

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

Appendix 2. Schedule of Compliance

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

Appendix 3. Monitoring Requirements

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

I. The pounds of VOC per 100 pounds of EPS beads used in the processes during a calendar month shall be calculated as follows:

$$P = \frac{\sum_i (U_i \times V_i)}{\sum_i U_i}$$

where:

P = Pounds of VOC per 100 pounds of EPS beads used in the processes during the calendar month.

U_i = Pounds of EPS beads from lot i used during the calendar month.

V_i = VOC content of EPS beads from lot i, in pounds of VOC per 100 pounds of beads.

II. For each lot of EPS beads (i) used in the processes, the VOC emission for the calendar month shall be calculated as follows:

$$E_i = \left(\frac{U_i \times V_i}{100} \times (1 - P_w)\right) - \left(\frac{U_i \times V_i}{100} \times \left(PE \times \frac{DE}{100}\right)\right)$$

where:

E_i = VOC emissions due to use of EPS beads from lot i during the calendar month, in pounds.

U_i, V_i = As above.

P_w = Production-weighted average fraction of VOC retained in product. "Production-weighted average fraction of VOC retained in product" means the average fraction of VOC contained in the raw beads that is retained in the product shipped from the facility for each month's production. This average is determined by dividing the VOC content of each product by the VOC content of the respective raw beads and weighting this ratio by the fraction, by weight, of the month's production that the product constitutes.

PE = Weight fraction of VOC emissions in the raw beads that are emitted during expansion.

DE = VOC destruction efficiency (percent of VOC in the inlet to the regenerative thermal oxidizer that is destroyed in the regenerative thermal oxidizer) of the regenerative thermal oxidizer. The default value for this shall be 98.0%; the actual tested value may be used with the approval of the AQD District Supervisor.

III. The total VOC emission for the calendar month due to the use in the processes of all lots of EPS beads shall be calculated as follows:

$$T_m = \sum_i E_i + DS$$

where:
T_m = Total VOC emissions during the calendar month, in pounds.
E_i = As above.
DS = VOC emissions for the month due to densifying of EPS containing VOC.

Appendix 4. Recordkeeping.

4.1 Recordkeeping Provisions for Source Using Hybrid Applicability Test

All information in this Appendix shall be maintained pursuant to R 336.2818 for ten years after EUMOLD8 becomes operational and shall be made available to the Department upon request.

A. Project Description:

Installation of a new block molding machine (EUMOLD8) to replace an existing block molding machine (EUMOLD4). The new mold is faster and more efficient than the old mold.

B. Applicability Test Description:

The applicability test is a hybrid test with project emissions accounting and excludable emissions. The baseline period selected was December 2015 through November 2017. Projected actual emissions, based on the proposed future production rate, were used for all existing equipment. The potential to emit was used for the new mold based on the mold throughput limit in the permit conditions. Emissions that could have been accommodated during the baseline period, calculated using the production level achieved in June of 2017, were excluded from the projected emission increase. Emissions from EUMOLD4 were subtracted out as the mold is being removed as part of the project.

C. Emission Limitations

		Emissions (tpy)			
Emission Unit/Flexible Group ID	**Pollutant**	**Baseline Actual**	**Projected Actual**	**Excluded**	**Reason for Exclusion**
FGEPS	VOC	215.58	279.71	45.18	Excluded emissions could have been accommodated based on the highest month's production during the baseline period

Appendix 5. Testing Procedures

There are no specific testing requirement plans or procedures for this ROP. Therefore, this appendix is not applicable.

Appendix 6. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-N1794-2017. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-N1794-2017a is being reissued as Source-Wide PTI No. MI-PTI-N1794-2024.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
82-21A*	202200046	Replace EUMOLD4 with EUMOLD8, update emissions distribution percentage across facility.	EUMOLD8 FGEPS
82-21*	202100216	Replacement of RTO.	EUEXPANDER5 EUEXPANDER6 FGEPS
192-18	201900041	Replaced EUEXPANDER4 with EUEXPANDER6, relocate EUEXPANDER5, update EU descriptions.	EUEXPANDER5 EUEXPANDER6 FGEPS

Appendix 7. Emission Calculations

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

Appendix 8. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use 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.