

January 14, 2022
MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION

EFFECTIVE DATE: January 14, 2022

ISSUED TO

Kalsec, Incorporated

State Registration Number (SRN): A1991

LOCATED AT

3713 West Main Street, Kalamazoo, Kalamazoo County, Michigan 49006

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-A1991-2022

Expiration Date: January 14, 2027

Administratively Complete ROP Renewal Application Due Between
July 14, 2025 and July 14, 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-A1991-2022

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

Rex Lane, Kalamazoo 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.

This permit does not relieve the permittee from any responsibilities or obligations imposed on the permittee, at the source under Administrative Consent Order EPA-5-20113(a)-MI-06 which was entered into on September 9, 2020 between USEPA and the facility.

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 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))**
- 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.
 - 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))**
- The applicable requirements are included and are specifically identified in the ROP.
 - 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:
- 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))**
 - 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))**
 - 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).

January 14, 2022

ROP No: MI-ROP-A1991-2022
Expiration Date: January 14, 2027
PTI No: MI-PTI-A1991-2022

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)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Each Individual HAP	Less than 10.0 tpy* ²	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.2	R 336.1205(1), Administrative Consent Order EPA-5-20113(a)-MI-06, Act 451, Section 324.5503(b))
2. Aggregate HAPs	Less than 25.0 tpy* ²	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.2	R 336.1205(1), Administrative Consent Order EPA-5-20113(a)-MI-06, Act 451, Section 324.5503(b))
3. Methanol emitted from process batches using methanol as a solvent	4.0 tpy ²	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.3(b)	R 336.1205(1), Administrative Consent Order EPA-5-20113(a)-MI-06, Act 451, Section 324.5503(b))
4. Methanol emitted from wastewater operations	4.13 tpy ²	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.3(c)	R 336.1205(1), Administrative Consent Order EPA-5-20113(a)-MI-06, Act 451, Section 324.5503(b))

* Beginning with the month of September 2020 and continuing for the first 12 calendar months, this limit applies to the cumulative total HAP emissions. Thereafter, the limit shall become a 12-month rolling limit.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. n-hexane usage	9.78 tpy ²	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC VI.3(a)	R 336.1205(1), Administrative Consent Order EPA-5-20113(a)-MI-06, Act 451, Section 324.5503(b)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall implement a leak detection and repair program (LDAR) for methanol that meets the requirements listed in Appendix 9.² **(R 336.1205(1), Administrative Consent Order EPA-5-20-113(a)-MI-06, Act 451, Section 324.5503(b))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

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 complete all required records and calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1))**
2. The permittee shall keep the following information source-wide on a monthly and 12-month rolling time period basis:
 - a. Gallons or pounds of each HAP containing material used.
 - b. Where applicable, gallons or pounds of each HAP containing material reclaimed.
 - c. Records of HAP content, in weight percent, of each HAP containing material used, based on information from the manufacturer or supplier, or other basis acceptable to the AQD District Supervisor.
 - d. Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month, beginning with the month of September 2020.
 - e. Individual and aggregate HAP emission calculations determining the cumulative emission rate of each during the first 12-months and the annual emission rate of each thereafter, in tons per 12-month rolling time period as determined at the end of each calendar month. Beginning with the month of September 2020 and continuing for the first 12 calendar months, cumulative total emissions records shall be kept. Thereafter, the records shall be based on a 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep all records on file and make them available to the Department upon request.²
(R 336.1205(1), Administrative Consent Order EPA-5-20-113(a)-MI-06, Act 451, Section 324.5503(b))

3. The permittee shall keep the following source-wide records:
 - a. Monthly and 12-month rolling time period n-hexane usage with supporting calculations.
 - b. Monthly and 12-month rolling time period stack and fugitive methanol emissions calculations for individual batches using methanol as a solvent.
 - i. Stack emissions calculations shall be based on performance test data or EPA emission factors, including those identified in the August 2007 "Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Volume II: Chapter 16" or any document designated by EPA as superseding this document.
 - ii. Fugitive emissions calculations shall be based on emission factors consistent with the 1995 "Protocol for Equipment Leak Emission Estimates for Fugitive Sources" (EPA-453/R-95-017) or any document designated by EPA as superseding this document and of which the permittee receives written notice directly from EPA. The permittee's calculations for fugitive emissions, following the 1995 Protocol, must use the Average Emission Factor Approach for all non-Method 21-screened components, and Correlation Approach for all Method 21-screened components.
 - c. Monthly and 12-month rolling methanol emissions from wastewater operations.
 - i. Wastewater emissions shall be calculated using WATER9 software or calculated using the emission factors used by WATER9.

The permittee shall keep all records on file and make them available to the Department upon request.²
(R 336.1205(1), Administrative Consent Order EPA-5-20-113(a)-MI-06, Act 451, Section 324.5503(b))

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

C. EMISSION UNIT 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
EU41-EXT-01	The equipment contained in the continuous process plant. Raw ground spice is fed into the extraction machine and is washed with a closed loop solvent system to extract the desired raw oils for finishing. The solvent is separated from the oil and recovered. The VOC emissions are controlled by condensers.	01-01-1967	NA
EU41-EXT-02	The equipment used to pneumatically convey the spent plant material from the continuous process plant to the spent material storage silo (EU-Silo-TK91001). Particulate emissions from the vacuum receiver/baghouse are conveyed to the spent material storage silo.	03-01-1985	NA
EUPDBO63050	One 500 BHP natural gas-fired boiler with a rated heat input capacity of 20.4 MMBTU per hour. Boiler has low-NOx burners.	06-21-2001	NA
EU43-GRD-01	Hammermills #1 and #2, and #1 baghouse. This equipment grinds and screens the raw spices prior to further processing in the continuous plant.	01-01-1989	FGGRIND
EU43-GRD-02	Three drying screw conveyors and #2 baghouse. This equipment grinds, screens, and dries the raw spices prior to further processing in the continuous plant.	01-01-1989	FGGRIND
EU44-SP-01	The specialty plant is a batch processing area where volatile oils and oleoresins are processed by filtration and/or liquid/liquid extraction. Solvents are used for the extraction and partitioning of the oils and oleoresins. Solvents are recovered by distillation. The VOC emissions are controlled by the final chilled coolant tail condensers.	01-01-1982	FGCOMB

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU48-BLD100-01	Building 100 is a batch processing area where volatile oils and oleoresins are processed by liquid/liquid extraction. Hops product will be stored in the two 5000-gallon bulk storage tanks. Solvents are used for the extraction and partitioning, and/or separation of the oils and oleoresins. Solvents are recovered by fractional distillation. The VOC emissions for six distillation processes, the hops storage tanks, and the solvent recovery system are controlled by the final chilled coolant tail condensers. One process vessel (R-103) is controlled by a separate condenser.	05-01-1988 06-2007 12-2014	FGCOMB
EU49-BLD200-01	Building 200 is a batch processing area where volatile oils and oleoresins are processed by liquid/liquid extraction. Solvents are used for the extraction and partitioning, and/or separation of the oils and oleoresins. Solvents are recovered by fractional distillation. The VOC emissions are controlled by the final chilled coolant tail condensers.	07-01-1997 10-25-2018	FGCOMB
EUPDAG46039	Dry products mixer with fiberglass filter.	02-01-1994 NA	FGRULE290
EU-SILO-TK91001	The silo stores spent material from EU41-EXT-02. Emissions are controlled by a baghouse and returned to the silo.	12-15-2005 NA	FGRULE290
EU-PDTK-E1	Solvent storage tank in Farm E used by EU41-EXT-01.	01-23-1990 NA	FGRULE290
EU-PDTK-E2B	Solvent storage tank in Farm E used by EU41-EXT-01.	02-20-1996 NA	FGRULE290
EU-PDTK-E4B	Solvent storage tank in Farm E used by EU41-EXT-01.	02-20-1996 NA	FGRULE290
EU-PDTK-E5	Solvent storage tank in Farm E used by EU41-EXT-01.	12-02-1993 NA	FGRULE290
EU-PDTK-E7	Solvent storage tank in Farm E used by EU41-EXT-01.	12-02-1993 NA	FGRULE290
EU-PDTKD-002	1100 gallon gasoline storage tank	01-01-1990	FGGASDISPGACT
EU-TANKS-EV	Solvent storage tanks in Farm V and seven of the tanks in Farm E. Tanks were installed between 1991-1995.	09-21-1991 08-1995	FGCOMB
EUSPCLARIFER	Process equipment used to make natural flavors and colors. Controlled by condenser HE44005.	11-16-2012 NA	FGRULE290
EUB200FILTER	Filter used in the processing of natural flavors and colors. Controlled by Building 200 tail condenser.	07-11-2012 NA	FGRULE290
EU-COLDCLEANER	Maintenance Bldg 45 Aqueous Part Washer	02-01-2014	FGCOLDCLEANERS

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUPDGE63002	Emergency Generac gas-fired, 26 hp (20 kW) generator installed under Rule 285(2)(g) and subject to 40 CFR Part 63, Subpart ZZZZ, as an existing unit. Located at Briarwood.	11-01-1999 NA	FGRICE-MACT
EUPDGE63003	Emergency Kohler gas-fired, 131 hp (100 kW) generator installed under Rule 28(2)5(g) and subject to 40 CFR Part 63, Subpart ZZZZ, as an existing unit. Located at the boilerhouse.	07-01-2001 NA	FGRICE-MACT
EUPDGE63004	Emergency Generac gas-fired, 79 hp (60 kW) generator installed under Rule 285(2)(g) and subject to 40 CFR Part 63, Subpart ZZZZ, as an existing unit. Located at Todd Building.	05-01-2006 NA	FGRICE-MACT
EUPDGE.630.001	Emergency gas-fired, 131 hp (100 kW) generator installed under Rule 285(2)(g) and subject to 40 CFR Part 60, Subpart JJJJ, as a new unit. Located at the Paul Todd Lab.	2006	FGSIRICE-NSPS
EUPDGE.630.002	Emergency Generac gas-fired, 29 hp (22 kW) generator installed under Rule 285(2)(g) and subject to 40 CFR Part 60, Subpart JJJJ, as a new unit. The West Main backup generator.	09-01-2013 NA	FGSIRICE-NSPS
EUPDGE.630.003	Emergency gas-fired, 29 hp (22 kW) generator installed under Rule 285(2)(g) and subject to 40 CFR Part 60, Subpart JJJJ, as a new unit. Located at the 1880 Barn.	July 2018	FGSIRICE-NSPS
EUPDGE.630.004	Emergency Generac gas-fired, 79 hp (60 kW) generator installed under Rule 285(2)(g) and subject to 40 CFR Part 60, Subpart JJJJ, as a new unit. Located at the Pilot Plant.	2020	FGSIRICE-NSPS

EU41-EXT-01 EMISSION UNIT CONDITIONS

DESCRIPTION

The equipment contained in the continuous process plant. Raw ground spice is fed into the extraction machine and is washed with a closed loop solvent system to extract the desired raw oils for finishing. The solvent is separated from the oil and recovered. The VOC emissions are controlled by condensers.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Several process condensers and pre-condensers, followed by two final tail condensers (HE41021 and HE41022)

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU41-EXT-01 unless all of the process equipment is vented through a properly installed, maintained, and operated final tail condenser. ² (R 336.1910)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. A temperature monitoring device with visible gauge shall be located on the final tail condenser (HE41022) exit gas outlet. (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))

NA

VI. MONITORING/RECORDKEEPING

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

1. Temperature readings of the tail condenser exhaust gas shall be recorded at least once per calendar week during the time period between 8:00 a.m. and 5:00 p.m. The process equipment being controlled by the final tail condenser must be operating at typical or peak production and operating conditions during the temperature recording. Records shall be kept in a log containing the information detailed in Appendix 4.4. (R 336.1213(3))
2. The permittee shall keep records of the annual solvent usage and the resulting VOC emissions, calculated on a calendar year basis. (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

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).

**EU41-EXT-02
 EMISSION UNIT CONDITIONS**

DESCRIPTION

The equipment used to pneumatically convey the spent plant material from the continuous process plant to the spent material storage silo (EU-Silo-TK91001). Particulate emissions from the vacuum receiver/baghouse are conveyed to the spent material storage silo.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Vacuum receiver baghouse (FL41001), EU-Silo-TK91001 baghouse (TK-91002).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	0.10 pounds per 1000 pounds of exhaust gas ²	Hourly	EU41-EXT-02	SC V.1, SC VI.1	R 335.1331(1)(a) Table 31J

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall implement and maintain the Malfunction Abatement Plan (MAP), or an alternate plan approved by the AQD District Supervisor. The plan shall include procedures for maintaining and operating in a satisfactory manner, EU-Silo-TK91001 baghouse (TK-91002), and Vacuum receiver baghouse (FL41001) during malfunction events, and a program for corrective action for such events. If the malfunction abatement plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the malfunction abatement plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor. **(R 336.1213(2), R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate material silo (EU-Silo-TK91001) unless the baghouse is installed, maintained, and operated properly.² **(R 336.1910)**

V. TESTING/SAMPLING

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

1. The permittee shall, upon request of the AQD District Supervisor, verify PM emission rates for EU41-EXT-02, 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; 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 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 336.1331, R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall perform a monthly visible emission observation and record the result. Visible emission observations shall be taken at least once per month, for a 3-minute duration, during the time period between 8:00 a.m. and 5:00 p.m. Readings shall be observed at the stack or outlet of the baghouse that controls the process. The process equipment being monitored must be operating at typical or peak production or operating conditions. It is not required that the observation be taken by an EPA method 9 certified reader. The observation shall result in a determination if there are any visible emissions other than uncombined water vapor. A log of the required observations shall contain the information detailed in Appendix 4.1. **(R 336.1213(3))**
2. The permittee shall implement the Malfunction Abatement Plan when visible emissions are observed, as per requirement VI (1) of this table. **(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

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).

EUPDB063050 EMISSION UNIT CONDITIONS

DESCRIPTION

One 500 BHP natural gas-fired boiler with a rated heat input capacity of 20.4 MMBTU per hour. Boiler has low-NOx burners.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Low NOx burners

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

See Appendix 8

January 14, 2022

ROP No: MI-ROP-A1991-2022
Expiration Date: January 14, 2027
PTI No: MI-PTI-A1991-2022

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall not operate the boiler unless all applicable provisions of 40 CFR Part 60, Subparts A and Dc are met. **(40 CFR Part 60, Subparts A & Dc)**

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
FGGRIND	Hammermills #1 and #2 controlled by a common baghouse (EU43-GRD-01). Three drying screw conveyors controlled by a baghouse (EU43-GRD-02).	EU43-GRD-01 EU43-GRD-02
FGCOMB	Three batch processing areas (Specialty Building, Building 100, and Building 200) where oils and oleoresins are processed by liquid/liquid extraction using solvents. Tank Farm V and seven tanks in Tank Farm E are included in the group. The emission units are combined because they vent to a common stack and have combined emission limits.	EU44-SP-01 EU48-BLD100-01 EU49-BLD200-01 EU-TANKS-EV
FGRICE-MACT	Emergency generators installed under Rule 285(2)(g) and subject to 40 CFR Part 63, Subpart ZZZZ, as existing units.	EUPDGE63002 EUPDGE63003 EUPDGE63004
FGSIRICE-NSPS	Gas-fired emergency generators installed under Rule 285(2)(g), and subject to 40 CFR Part 60, Subpart JJJJ.	EUPDGE.630.001 EUPDGE.630.002 EUPDGE.630.003 EUPDGE.630.004
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.	EUPDAG46039 EU-SILO-TK91001 EU-PDTK-E1 EU-PDTK-E2B EU-PDTK-E4B EU-PDTK-E5 EU-PDTK-E7 EUSPCLARIFER EUB200FILTER
FGCOLDCLEANERS	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	EU-COLDCLEANER

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGGASDISPGACT	<p>Conditions for existing and new/reconstructed stationary gasoline dispensing facilities (GDFs) located at an area source of hazardous air pollutants (HAP) that are subject to 40 CFR Part 63, Subpart CCCCCC and have a maximum monthly gasoline throughput of one of the following:</p> <ol style="list-style-type: none"> 1. Less than 10,000 gallons; or 2. At least 10,000 gallons and no more than 100,000 gallons. <p>GDF means any stationary source which dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine use solely for competition. These facilities include, but are not limited to, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment, boats, test engines, landscaping equipment, generators, pumps, and other gasoline-fueled engines and equipment.</p>	EUPDTKD-002

**FGGRIND
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Hammermills #1 and #2 controlled by a common baghouse (EU43-GRD-01). Three drying screw conveyors controlled by baghouses (EU43-GRD-02).

Emission Units: EU43-GRD-01, EU43-GRD-02

POLLUTION CONTROL EQUIPMENT

EU43-GRD-01-baghouse #1 (FL43001); EU43-GRD-02-baghouse #2 (FL43002).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	0.10 pounds per 1,000 pounds of exhaust gas. ²	Hourly	EU43-GRD-01 EU43-GRD-02	SC V.1, SC VI.1	R 336.1331(1)(a), Table 31J

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the two hammermills unless the baghouse (FL43001) is installed, maintained, and operated properly.² **(R 336.1910)**
2. The permittee shall not operate the three drying screw conveyors unless the baghouse (FL43002) is installed, maintained, and operated properly.² **(R 336.1910)**
3. The permittee shall implement and maintain a Malfunction Abatement Plan (MAP), or an alternate plan approved by the AQD District Supervisor. The plan shall include procedures for maintaining and operating in a satisfactory manner, EU43-GRD-01-baghouse #1 (FL43001) and EU43-GRD-02-baghouse #2 (FL43002) during malfunction events, and a program for corrective action for such events. If the malfunction abatement plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the malfunction abatement plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor. **(R 336.1213(2), R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall, upon request of the AQD District Supervisor, verify PM emission rates for FGGRIND, 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; 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 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 336.1331, R 336.2001, R 336.2003, R 336.2004)

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall perform a monthly visible emission observation and recording for each baghouse. Visible emission observations shall be taken at least once per month for a 3-minute duration, during the time period between 8:00 a.m. and 5:00 p.m. Readings shall be observed at the stack or outlet of the baghouse that controls the process. The process equipment being monitored must be operating at typical or peak production or operating conditions. It is not required that the observation be taken by an EPA method 9 certified reader. The observation shall result in a determination if there are any visible emissions other than uncombined water vapor. A log of the required observations shall contain the information detailed in Appendix 4.1. (R 336.1213(3))
2. The Malfunction Abatement Plan for the baghouses shall be implemented when visible emissions are observed as per requirement VI (1) of this table. (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

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).

**FGCOMB
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Three batch processing areas (Specialty Building, Building 100, and Building 200) where oils and oleoresins are processed by liquid/liquid extraction using solvents. Tank Farm V and seven tanks in Tank Farm E are included in the group. The emission units are combined because they vent to a common stack and have combined emission limits.

Emission Units: EU44-SP-01, EU48-BLD100-01, EU49-BLD200-01, EU-TANKS-EV

POLLUTION CONTROL EQUIPMENT

EU44-SP-01 Plant: Various process and vent condensers, followed by a final tail condenser (HE44006 or HE44005)

EU48-BLD100-01 Plant: Various process and vent condensers, followed by two parallel (primary and backup) final tail condensers (HE48121 and HE48122); Venturi Scrubber Hold Tank (TK48003) for Slurry Tank (TK48103A); and Condenser (HE48103) for R-103 Vessel (RE48103)

EU49-BLD200-01: Various process and vent condensers, followed by two parallel (primary and backup) final tail condensers (HE49001 and HE49002)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Acetone	20 pph ¹	Per hour based on a calendar month average	FGCOMB	SC VI.1, VI.2, and VI.3	R 336.1225
2. Acetone	40 tpy ¹	12-month rolling time period as determined at the end of each calendar month.	FGCOMB	SC VI.1, VI.2, and VI.3	R 336.1224
3. VOC	19.1 pph ²	Per hour based on a calendar month average	FGCOMB	SC VI.1, VI.2, and VI.3	R 336.1702(a)
4. VOC	47.3 tpy ²	12-month rolling time period as determined at the end of each calendar month.	FGCOMB	SC VI.1, VI.2, and VI.3	R 336.1702(a)
5. PM	0.10 lbs per 1000 lbs of gas ^{a2}	Hourly	R-101 in EU48-BLD100-01 (solids handling exhaust)	SC V.1	R 336.1331

^a Calculated on a wet gas basis

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate the process in Building 100, unless all of the process equipment, except for the R-103 vessel, the slurry tank, and the bulk solvent storage tanks, are vented through one of the two properly installed, maintained, and operated chilled coolant (tail) condensers (HE48121 and HE48122).² **(R 336.1224, R 336.1225, R 336.1702, R 336.1910)**

2. The permittee shall not operate the slurry tank in Building 100, unless it is vented through the properly installed, maintained, and operated scrubber (TK48125).² **(R 336.1224, R 336.1225, R 336.1702, R 336.1910)**
3. The permittee shall not operate the process in Building 200, unless all of the process equipment, except for the bulk solvent storage tanks, are vented through one of the two properly installed, maintained, and operated chilled coolant (tail) condensers (HE49001 and HE49002).² **(R 336.1910)**
4. The permittee shall not operate the process in the Specialties Plant, unless all of the process equipment, except for the bulk solvent storage tanks, are vented through the properly installed, maintained, and operated chilled coolant (tail) condenser (HE44006).² **(R 336.1910)**
5. The permittee shall not operate the R-103 distillation vessel in Building 100, unless it is vented through a properly installed, maintained, and operated condenser (HE48103).² **(R 336.1910)**
6. The gas outlet temperature of the chilled coolant tail condensers (HE48121, HE48122, HE49001, HE49002, HE44005, and HE44006) shall not exceed 5°C.² **(R 336.1224, R 336.1225, R 336.1702, R 336.1910)**
7. The permittee shall not operate the R-101 vessel solids handling exhaust, unless it is vented through the properly installed, maintained, and operated particulate filter.² **(R 336.1224, R 336.1225, R 336.1331, R 336.1910)**
8. The permittee shall implement and maintain a Malfunction Abatement Plan (MAP), or an alternate plan approved by the AQD District Supervisor. The plan shall include procedures for maintaining and operating in a satisfactory manner, the chilled coolant “tail condensers” during malfunction events, and a program for corrective action for such events. If the malfunction abatement plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the malfunction abatement plan within 45 days after such an event occurs and submit the revised plan to the AQD District Supervisor. **(R 336.1213(2), R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. Temperature monitoring devices with visible gauges shall be located on the final chilled coolant tail condenser (HE48121, HE48122, HE49001, HE49002, HE44005, and HE44006) exit gas outlets.² **(R 336.1224, R 336.1225, R 336.1702, R 336.1910)**
2. The scrubber (TK48125) shall be equipped with an inlet water pressure gauge.² **(R 336.1224, R 336.1225, R 336.1702)**

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, upon request of the AQD District Supervisor, verify PM emission rates for the R-101 vessel solids handling exhaust, within EU48-BLD100-01, 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; 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 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 336.1331, R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. Temperature readings of the final tail condenser exhaust gases shall be recorded at least once per day during the time period between 8:00 a.m. and 5:00 p.m. The process equipment being controlled by the final tail condenser must be operating at typical or peak production and operating conditions during the daily temperature recording. Records shall be kept in a log containing the information detailed in Appendix 4.3.² (R 336.1224, R 336.1225, R 336.1702)
2. The Malfunction Abatement Plan for the chilled coolant “tail condensers” shall be implemented when the daily reading of the condenser gas outlet temperature exceeds 5°C.² (R 336.1201, R 336.1911)
3. Records shall be kept of the number and type of batches performed, batch emission factors, gallons processed in solvent recovery, hours of operation, emission calculations, and the resulting methylene chloride, acetone, and VOC emissions for each calendar month.² (see Appendices 4.2 and 7) (R 336.1224, R 336.1225, R 336.1702)
4. Records shall be kept of the throughput for the solvent storage tanks in Tank Farms E and V associated with FGCOMB for each calendar month. The emissions due to working losses shall be calculated by the method detailed in Appendix 7.² (R 336.1224, R 336.1225, R 336.1702)

See Appendices 4 and 7

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCSV002	15 ¹	40 ¹	R 336.1225
2. SVR101SOLID	12 ¹	25 ¹	R 336.1225

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**FGRICE-MACT
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at an area source of HAP emissions, existing emergency, spark ignition (SI) RICE equal to or less than 500 bhp. A RICE is existing if the date of installation is before June 12, 2006.

Emission Units:

Emission Unit ID	Location	Manufacturer	Fuel	Year	HP
EUPDGE63002	Briarwood, north of board room	Generac	Natural gas	1999	26
EUPDGE63003	Boiler House	Kohler	Natural gas	2001	131
EUPDGE63004	Todd Building	Generac	Natural gas	2006	79

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must comply with the requirements in Item 5 of Table 2d of 40 CFR Part 63, Subpart ZZZZ which apply to each engine in FGRICE-MACT as specified in the following:
 - a. Change oil and filter every 500 hours of operation or annually, whichever comes first, except as allowed in SC III.2;
 - b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

If the emergency engine is being operated during an emergency and it is not possible to shut down the engine to perform the management practice requirements on the schedule required, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice standard can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State or local law has been abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. **(40 CFR 63.6603(a), 40 CFR Part 63, Subpart ZZZZ, Table 2d.5)**

2. The permittee may utilize an oil analysis program in order to extend the specified oil change requirement in SC III.1. The oil analysis must be performed at the same frequency specified for changing the oil in SC III.1. **(40 CFR 63.6625(j))**
3. The permittee shall operate and maintain each engine in FGRICE-MACT and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop 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 63.6605, 40 CFR 63.6625(e), 40 CFR 63.6640(a), 40 CFR Part 63, Subpart ZZZZ, Table 6.9**
4. For each engine in FGRICE-MACT, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. **(40 CFR 63.6625(h))**
5. The permittee may operate each engine in FGRICE-MACT for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. **(40 CFR 63.6640(f)(2))**
6. Each engine in FGRICE-MACT may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in **SC III.5**. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for the permittee to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 63.6640(f)(4))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGRICE-MACT with non-resettable hours meters to track the operating hours. **(40 CFR 63.6625(f))**

V. TESTING/SAMPLING

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

1. If using the oil analysis program, the permittee must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 business days or before commencing operation, whichever is later. The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. **(40 CFR 63.6625(j))**

VI. MONITORING/RECORDKEEPING

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

1. For each engine in FGRICE-MACT, the permittee shall keep in a satisfactory manner the following:

- a. A copy of each notification and report that was submitted to comply with 40 CFR Part 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted,
- b. Records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment,
- c. Records of performance tests and performance evaluations,
- d. Records of all required maintenance performed on the air pollution control and monitoring equipment,
- e. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

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

2. For each engine in FGRICE-MACT, the permittee shall keep in a satisfactory manner, records to demonstrate continuous compliance with the operation and maintenance of the engine according to the manufacturer's emission-related operation and maintenance instructions; or of a maintenance plan that provides 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. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(d), 40 CFR 63.6660, 40 CFR Part 63, Subpart ZZZZ, Table 6.9)**
3. For each engine in FGRICE-MACT, the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(e), 40 CFR 63.6660)**
4. The permittee shall monitor and record, the total hours of operation for each engine in FGRICE-MACT on a monthly basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FGRICE-MACT on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for emergency operation. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3), 40 CFR 63.6655(f), 40 CFR 63.6660)**
5. 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 63.6660(a))**
6. 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 63.6660(b))**

VII. REPORTING

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

See Appendix 8

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 ZZZZ for Stationary Reciprocating Internal Combustion Engines. **(40 CFR Part 63, Subparts A and ZZZZ)**

Footnotes:

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

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

**FGSIRICE-NSPS
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Gas-fired emergency generators installed under Rule 285(g) or Rule 285(2)(g), and subject to 40 CFR Part 60, Subpart JJJJ.

Emission Units:

EU ID	Location	Manufacturer	Fuel	Date installed	HP
EUPDGE.630.001	Paul Todd Lab	Generac	Natural gas	2006	131
EUPDGE.630.002	West Main backup	Generac	Natural gas	09/01/2012	29
EUPDGE.630.003	1880 Barn	Generac	Natural gas	07/2018	29
EUPDGE.630.004	Pilot Plant	Generac	Natural gas	2020	79

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
SI Engines 25 < HP < 130, 2009 Model Years and Later					
1. NOx + HC	10 g/HP-hr	Instantaneous	FGSIRICE-NSPS 25 < HP < 130	SC III. 3 or III.4 and SC V.1	40 CFR 60.4233(d), & Table 1
2. CO	387 g/HP-hr	Instantaneous	FGSIRICE-NSPS 25 < HP < 100	SC III. 3 or III.4 and SC V.1	40 CFR 60.4233(d), & Table 1
SI Engines HP ≥ 130, 2009 Model Years and Later					
3. NOx	2.0 g/HP-hr	Instantaneous	FGSIRICE-NSPS HP ≥ 130	SC III. 3 or III.4 and SC V.1	40 CFR 60.4233(e), & Table 1
4. CO	4.0 g/HP-hr	Instantaneous	FGSIRICE-NSPS HP ≥ 130	SC III. 3 or III.4 and SC V.1	40 CFR 60.4233(e), & Table 1
5. VOC*	1.0 g/HP-hr	Instantaneous	FGSIRICE-NSPS HP ≥ 130	SC III. 3 or III.4 and SC V.1	40 CFR 60.4233(e), & Table 1

*Formaldehyde should not be included in the VOC calculations

6. Except as provided in 40 CFR 60.4236(e), the permittee shall not install an engine with a maximum power greater than 19 KW (25 hp) that does not meet the applicable requirements in 40 CFR 60.4233. **(40 CFR 60.4236(c) & (e))**
7. If the permittee installs a non-certified engine that is greater than or equal to 130 HP the permittee may choose to comply with the following emission standards for that engine: **(Table 1 of 40 CFR Part 60, Subpart JJJJ)**
 - a. 160 ppmvd NOx at 15% oxygen and
 - b. 540 ppmvd CO at 15% oxygen and
 - c. 86 ppmvd VOC at 15% oxygen (not to included formaldehyde).

8. If an engine in FGSIRICE-NSPS is modified or reconstructed, the permittee shall comply with the applicable requirements in 40 CFR 60.4233(f) for that engine. **(40 CFR 60.4233(f))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate and maintain each unit in FGSIRICE-NSPS that achieves the emission standards required in 40 CFR 60.4233 over the entire life of each unit. **(40 CFR 60.4234)**
2. In order to be considered emergency generators the permittee must operate each engine in FGSIRICE-NSPS according to the requirements below. Any operation other than this is prohibited. If not operated accordingly, then the engine must meet all requirements in 40 CFR Part 60, Subpart JJJJ for non-emergency engines. **(40 CFR 60.4243(d))**
 - a. There is no time limit on the use of the emergency engine in emergency situations.
 - b. The permittee may operate each FGSIRICE-NSPS for any combination of the purposes specified below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 2.c counts as part of the 100 hours per calendar year.
 - i. Each engine in FGSIRICE-NSPS may be operated for maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
 - c. The permittee may operate each unit in FGSIRICE-NSPS up to 50 hours per year in non-emergency situations, but these 50 hours of operation are counted towards the 100 hours per calendar year allowed in 2.b. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the requirements in 40 CFR 60.4243(d)(3)(i) are met.
3. If the permittee is demonstrating compliance with the emission standards in 40 CFR 60.4233(d) by purchasing a certified engine, compliance shall be demonstrated according to the following: **(40 CFR 60.4243(b)(1))**
 - a. The engine shall be certified for the for the same model year; and
 - b. The certified engine and control device shall be operated and maintained according to the manufacturer's emission-related written instructions. The applicable requirements in 40 CFR Part 1068, Ssubparts A-D shall be met. If the engine settings are adjusted according to and consistent with the manufacturer's instructions, the engine will not be considered out of compliance; or
 - c. If the certified engine is not operated and maintained according to the manufacturer's emission-related written instructions, the engine will be considered non-certified and compliance shall then be demonstrated per 40 CFR 60.4243(a)(2).
4. If the permittee has purchased a non-certified engine, compliance with the emission standards in 40 CFR 60.4233(d) shall be demonstrated according to the following: **(40 CFR 60.4243(b)(2))**
 - a. A maintenance plan shall be kept, and to the extent practicable, the engine shall be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions; and

- b. Testing shall be performed as specified in SC V.1 below.
5. The permittee may operate each engine using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations. If propane is used for more than 100 hours per year in an engine that is not certified to the emissions standards when using propane, the permittee shall conduct a performance test to demonstrate compliance with the emissions standards of 40 CFR 60.4233. **(40 CFR 60.4243(e))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install a non-resettable hour meter on each emergency engine to track the number of operating hours of each engine. **(40 CFR 60.4237)**

V. TESTING/SAMPLING

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

1. If the permittee has purchased a non-certified engine, compliance with the emission standards in 40 CFR 60.4233(d) shall be demonstrated according to SC III.4 above and by the following: **(40 CFR 60.4243(b)(2), 40 CFR 60.4244)**
 - a. For engines greater than 25 Hp and less than or equal to 500 HP, the permittee shall conduct an initial performance test as specified in 40 CFR 60.4244.
 - b. For engines greater than 500 HP, the permittee shall conduct an initial performance test and then subsequent performance testing every 8,760 hours of operation or 3 years, whichever comes first. The tests shall be conducted as specified in 40 CFR 60.4244.
2. If required to test an engine(s), the permittee shall submit a complete test protocol to the AQD District Supervisor and the Technical Programs Unit for approval at least 30 days prior to the anticipated test date. **(R 336.1213(3))**
3. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days after the test was completed. **(R 336.1213(3), 40 CFR 60.4245(d))**

See Appendix 5

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep a maintenance plan for the engine(s) and records of all maintenance performed. **(40 CFR 60.4243(b), 40 CFR 60.4245(a)(2))**
2. The permittee shall keep records of the following: **(40 CFR 60.4245(a))**
 - a. All notifications submitted to comply with 40 CFR Part 60, Subpart JJJJ and all documentation supporting any notification.
 - b. If the engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.
 - c. If the engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards.
3. For each engine meeting one of the criteria below, the permittee shall keep a record of the hours of operation of the engine that is recorded through the non-resettable hour meter. The records must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hour are spent for non-emergency operation. The records shall be kept in sufficient detail to demonstrate compliance with 40 CFR 60.4243(d). **(40 CFR 60.4245(b), R 336.1213(3))**
 - a. All engines greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines.

- b. All engines greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011, that do not meet the standards applicable to non-emergency engines.
 - c. All engines greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines.
4. If the permittee burns propane in an engine as allowed in 40 CFR 60.4243(e), records adequate to demonstrate compliance with 40 CFR 60.4243(e) shall be kept. **(40 CFR 60.4243(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))**
- 4. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

- 1. The permittee shall comply with all applicable provisions of the New Source Performance Standards as specified in 40 CFR Part 60, Subparts A and JJJ for Stationary Reciprocating Internal Combustion Engines. **(40 CFR Part 60, Subparts A and JJJJ)**

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).

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: EUPDAG46039 (Dry Product Mixer), EU-SILO-TK91001, EU-PDTK-E1, EU-PDTK-E2B, EU-PDTK-E4B, EU-PDTK-E5, EU-PDTK-E7, EUSPCLARIFER, and EUB200FILTER

POLLUTION CONTROL EQUIPMENT

EUPDAG46039 - fiberglass filter; EU-SILO-TK91001 - baghouses; EUSPCLARIFIER - condenser HE44005; EUB200FILTER – Building 200 tail condenser

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

FGCOLDCLEANERS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

Emission Unit: EU-COLDCLEANER

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

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

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The cold cleaner must meet one of the following design requirements:
 - a. The air/vapor interface of the cold cleaner is no more than ten square feet. **(R 336.1281(2)(h))**
 - b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. **(R 336.1285(2)(r)(iv))**
2. The cold cleaner shall be equipped with a device for draining cleaned parts. **(R 336.1611(2)(b), R 336.1707(3)(b))**
3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. **(R 336.1611(2)(a), R 336.1707(3)(a))**
4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. **(R 336.1707(3)(a))**
5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:

- a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. **(R 336.1707(2)(a))**
- b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. **(R 336.1707(2)(b))**
- c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. **(R 336.1707(2)(c))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

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

VII. REPORTING

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

See Appendix 8

January 14, 2022

ROP No: MI-ROP-A1991-2022
Expiration Date: January 14, 2027
PTI No: MI-PTI-A1991-2022

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

FGGASDISPGACT FLEXIBLE GROUP CONDITIONS
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DESCRIPTION

Conditions for existing and new/reconstructed stationary gasoline dispensing facilities (GDFs) located at an area source of hazardous air pollutants (HAP) that are subject to 40 CFR Part 63, Subpart CCCCCC and have a maximum monthly gasoline throughput of one of the following:

1. Less than 10,000 gallons;
2. At least 10,000 gallons and no more than 100,000 gallons.

GDF means any stationary source which dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine use solely for competition. These facilities include, but are not limited to, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment, boats, test engines, landscaping equipment, generators, pumps, and other gasoline-fueled engines and equipment.

Emission Unit: EUPDTKD-002

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall comply with the following measures for a GDF with the monthly throughput of <10,000 gallons: **(40 CFR 63.11116(a))**
 - a. The permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time;
 - b. The permittee shall minimize gasoline spills;
 - c. Spills shall be cleaned up as expeditiously as practicable;
 - d. The permittee shall cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
 - e. The permittee shall minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
2. The permittee shall comply with the following measures for a GDF with the monthly throughput of >10,000 gallons and <100,000: **(40 CFR 63.11117(a) and (b))**
 - a. The permittee shall comply with the requirements for GDF facilities with monthly throughput <10,000 gallons unless the tank is less than 250 gallons;
 - b. The permittee shall only load gasoline into storage tanks by utilizing submerged filling;

- c. Fill pipes not meeting the submerge pipe specifications are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation for such demonstration must be made available for inspection.
- d. Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements. **(40 CFR 63.11117(c))**

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 record of gasoline throughput to be able to demonstrate that monthly throughput is less than 10,000 gallons and such record must be made available to USEPA or to EGLE within 24 hours of a request. **(40 CFR 63.11116(b))**

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

- 1. The permittee shall comply with all applicable provisions of the federal National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities as specified in 40 CFR Part 63, Subparts A and CCCCC. **(40 CFR Part 63, Subparts A and CCCCC)**
- 2. If the EUPDTKD-002 throughput exceeds an applicable throughput threshold, then EUPDTKD-002 will remain subject to the requirements for sources above the threshold, even if the EUPDTKD-002 throughput later falls below the applicable throughput threshold. **(40 CFR 63.11111(i))**

3. Monthly throughput means the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each GDF during a month. Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12. **(40 CFR 63.11132)**

Footnotes:

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

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

E. NON-APPLICABLE REQUIREMENTS

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

Emission Unit/Flexible Group ID	Non-Applicable Requirement	Justification
EUPDGE63002 EUPDGE63003 EUPDGE63004 EUPDGE630.001 EUPDGE630.002 EUPDGE630.003	40 CFR Part 60, Subpart IIII	All current generators at the Facility are spark ignition. Subpart IIII is for compression ignition engines. Per 60.4200(a), this subpart does not apply.

APPENDICES

Appendix 1. Acronyms and Abbreviations

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

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

Appendix 2. Schedule of Compliance

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

Appendix 3. Monitoring Requirements

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

Appendix 4. Recordkeeping

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in EU41-EXT-01, EU41-EXT-02, FGGRIND and FGCOMB. Alternative formats must be approved by the AQD District Supervisor.

1. The permittee shall use the following approved formats and procedures for the recordkeeping and/or reporting requirements referenced in Tables EU41-EXT-02 and FGGRIND.

The following are required to satisfy periodic monitoring requirements for the opacity and particulate limit. A written record must be kept on a monthly basis containing the following information:

- a. Date
- b. Time of day
- c. Stack ID
- d. Status of process
- e. Presence of visible emissions (yes/no)
- f. Referral to maintenance/malfunction abatement plan (yes/no)

2. The permittee shall use the following approved formats and procedures for the recordkeeping and/or reporting requirements referenced in Table FGCOMB.

The following are required to satisfy periodic monitoring requirements for the Methylene Chloride, Acetone, and VOC emission limit. A written record must be kept on a monthly basis containing the following information. The information shall be kept in a format similar to that detailed in Appendix 7:

- a. Type of batch performed (product)
- b. Number of batches of each product performed
- c. Number of gallons solvent processed in solvent recovery
- d. Batch emission factors
- e. Hours to perform each batch type
- f. Total hours of operation to perform each batch while using each solvent component
- g. Emission totals in pounds per hour, calculated on a monthly basis, and pounds per month

3. The permittee shall use the following approved formats and procedures for the recordkeeping and/or reporting requirements referenced in Table FGCOMB.

The following are required to satisfy periodic monitoring requirements for the chilled coolant tail condensers. A written record must be kept on a daily basis containing the following information:

- a. Date
- b. Time of day
- c. Condenser ID
- d. Status of process
- e. Temperature of exhaust gas
- f. Referral to malfunction abatement plan (yes/no)

4. The permittee shall use the following approved formats and procedures for the recordkeeping and/or reporting requirements referenced in Table EU41-EXT-01.

The following are required to satisfy periodic monitoring requirements for the final tail condenser. A written record must be kept on a daily basis containing the following information:

- a. Date
- b. Time of day
- c. Condenser ID
- d. Status of process
- e. Temperature of exhaust gas

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-A1991-2015. 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-A1991-2015 is being reissued as Source-Wide PTI No. MI-PTI-A1991-2022.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
72-14	201400164	Installation of two new 5000-gallon hops product storage tanks and a new solvent recovery system in EU48-BLD100-01.	FGCOMB
158-18*	NA	The installation of a new 3,000-gallon Distillation Process in Building 200. The Building 200 Distillation Process will be in Building 200 (EU49-BLD200-01) and part of FGCOMB.	FGCOMB
158-18A*	202100073	Installation of a solids handling station and remove methylene chloride usage and emission limits from FGCOMB.	FGCOMB
27-21*	202100131	Opt-out for HAPs	SOURCE-WIDE

Appendix 7. Emission Calculations

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

Process Equipment

The number of batches of each type performed per month shall be multiplied by the batch emission factor for the solvent component used in the batch type to determine the batch emissions per component type. Similarly, the number of gallons of each solvent component processed for solvent recovery per month shall be multiplied by the emission factor for the solvent component being recovered to determine the emissions per component type. The monthly emissions per solvent component type shall be totaled for all production or solvent recovery batches performed during the month to determine the total pounds and tons of emissions for the month.

The number of batches of each type performed per month shall be multiplied by a factor for the hours per batch to determine the hours of operation while using each component type. Similarly, the number of gallons of each solvent component being processed for recovery per month shall be multiplied by the pounds per gallon factor for the solvent component to determine the hours of operation while recovering each component type.

The emissions of each component and the total hours of operation while running batches that use each component shall be totaled for each month. The total pounds shall be divided by the total hours of operation to determine the average pounds per hour emission rate based on a monthly time period calculation. On and after August 1, 2014, the total pounds shall be divided by the total hours of operation to determine the average pounds per hour emission rate based on a monthly time period calculation unless the total hours of operation exceed the total hours in the month, in which case the total pounds shall be divided by the total hours in the month to determine the average pounds per hour emission rate based on a monthly time period calculation.

The total tons of emissions for the month shall be added to the tons of emissions for the previous eleven months to determine the tons per year based on a 12-month rolling time period as determined at the end of each calendar month.

Storage Tanks

For each solvent storage tank in Farms E and V, the monthly solvent throughput shall be used to determine the pounds emitted per month of methylene chloride, acetone, and VOC, by using the following calculations.

The total tons of emissions for the month shall be added to the tons of emissions for the previous eleven months to determine the tons per year based on a 12-month rolling time period as determined at the end of each calendar month.

Lw = pounds per year from filling operations
P = true vapor pressure (psia) at the bulk liquid temperature
V = tank capacity (gallons)
N = number of tank turnovers (annual throughput/V)
Kn = turnover factor (from AP-42)
Kc = product factor (1.0)
Mv = molecular weight (pound per pound mole)
 $Lw = 2.40E-05 (Mv)(P)(V)(Kn)(Kc)$

Building 100, Building 200, Specialties Plant

Month						Acetone			VOC			MeCl2		
Pro d. No.	Produ ct Name	Compone nt Name	EF lb/ba or lbs/g al	hrs/ batc h	ba/m o or gal/m o	lb s	Hrs *	lbs/h r	lb s	Hrs *	lbs/h r	lb s	Hrs *	lbs/h r
1		Acetone												
1		VOC												
2		Acetone												
2		VOC												
Totals														

	Jan yr__	Feb yr__	Mar yr__	Apr yr__	May yr__	Jun yr__	Jul yr__	Aug yr__	Sept yr__	Oct yr__	Nov yr__	Dec yr__	12MR T# emissions
Component	tons /mo	tons/ mo.	tons/y r										
Acetone													
VOC													

* If the total hours of operation exceed the total hours in the month, the total hours in the month shall be used to determine the average pounds per hour emission rate based on a monthly time period calculation.

12 month rolling time period.

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.

Appendix 9. Methanol Leak Detection and Repair (LDAR) Requirements

The permittee's Methanol LDAR program shall include the following requirements:

- a. The permittee must conduct inspections of process vessels and equipment in HAP service¹ to determine that the process vessels and equipment are sound and free of leaks.
 - i. Inspections must be conducted at least once during each calendar quarter in which process vessels and equipment are in HAP service.
 - ii. For these inspections, detection methods incorporating sight, sound, or smell are acceptable. Indications of a leak identified using such methods constitute a leak unless the permittee demonstrates that the indications of a leak are due to a condition other than loss of HAP.
 - iii. As an alternative to conducting quarterly inspections to detect leaks, the permittee may use Method 21 of 40 CFR Part 60, Appendix A-7 on an annual basis, with a leak definition of 500 parts per million by volume (ppmv). The permittee may also use Method 21 with a leak definition of 500 ppmv to determine if indications of a leak identified during an inspection conducted in accordance with (a)(ii) are due to a condition other than loss of HAP.
 - iv. Inspections must be conducted while the process equipment in HAP service is operating under typical manufacturing conditions.
 - v. No inspection is required in a calendar quarter during which the process equipment does not operate for the entire calendar quarter and is not in HAP service. If the process equipment operates at all during a calendar quarter, an inspection is required for that quarter.
- b. The permittee must repair any leak within 15 calendar days after detection of the leak or document the reason for any delay of repair. For the purposes of this paragraph, a leak will be considered "repaired" if one of the following conditions is met:
 - i. The visual, audible, olfactory, or other indication of a leak to the atmosphere has been eliminated, or
 - ii. No bubbles are observed at potential leak sites during a leak check using soap solution, or
 - iii. The system will hold a test pressure.
- c. The permittee must keep records of the dates and results of each inspection event, the dates of equipment repairs, and, if applicable, the reasons for any delay in repair. These records shall be kept at the Facility and made available for EPA inspection upon request.

¹ "In HAP service" shall be defined as a process vessel or piece of equipment that either contains or contacts a feedstock, byproduct, or product that contains > 5% of a HAP, excluding any HAP used in manual cleaning activities. A process vessel is no longer in HAP service after the vessel has been emptied to the extent practicable (i.e., a vessel with liquid left on process vessel walls or as bottom clingage, but not in pools, due to floor irregularity, is considered completely empty) and any cleaning has been completed.