

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

EFFECTIVE DATE: November 21, 2017

REVISION DATE: July 2, 2019

ISSUED TO

**DTE Gas Company - Washington 10 Compressor Station**

State Registration Number (SRN): N3391

LOCATED AT

12700 30 Mile Road, Washington Township, Michigan 48095

**RENEWABLE OPERATING PERMIT**

Permit Number: MI-ROP-N3391-2017a

Expiration Date: November 21, 2022

Administratively Complete ROP Renewal Application  
Due Between May 21, 2021 and May 21, 2022

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

**SOURCE-WIDE PERMIT TO INSTALL**

Permit Number: MI-PTI-N3391-2017a

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

Michigan Department of Environment, Great Lakes, and Energy

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Joyce Zhu, Warren District Supervisor

## TABLE OF CONTENTS

<b>AUTHORITY AND ENFORCEABILITY .....</b>	<b>3</b>
<b>A. GENERAL CONDITIONS.....</b>	<b>4</b>
Permit Enforceability .....	4
General Provisions.....	4
Equipment & Design .....	5
Emission Limits.....	5
Testing/Sampling .....	5
Monitoring/Recordkeeping .....	6
Certification & Reporting .....	6
Permit Shield .....	7
Revisions .....	8
Reopenings.....	8
Renewals.....	9
Stratospheric Ozone Protection .....	9
Risk Management Plan.....	9
Emission Trading .....	9
Permit to Install (PTI) .....	10
<b>B. SOURCE-WIDE CONDITIONS .....</b>	<b>11</b>
<b>C. EMISSION UNIT CONDITIONS .....</b>	<b>12</b>
EMISSION UNIT SUMMARY TABLE.....	12
EUDIRECTHEATER.....	14
EUGENERATOR .....	16
<b>D. FLEXIBLE GROUP CONDITIONS.....</b>	<b>18</b>
FLEXIBLE GROUP SUMMARY TABLE.....	18
FGENGINES1.....	19
FGENGINES2.....	22
FGINDHEATERS1.....	29
FGINDHEATERS2.....	31
FGHCTANKS.....	33
FG-COLD CLEANERS.....	35
FGBOILERS .....	37
FGRULE285 (2) (mm).....	41
<b>E. NON-APPLICABLE REQUIREMENTS .....</b>	<b>43</b>
<b>APPENDICES .....</b>	<b>44</b>
Appendix 1. Acronyms and Abbreviations.....	44
Appendix 2. Schedule of Compliance.....	45
Appendix 3. Monitoring Requirements .....	45
Appendix 4. Recordkeeping .....	45
Appendix 5. Testing Procedures .....	45
Appendix 6. Permits to Install.....	45
Appendix 7. Emission Calculations .....	46
Appendix 8. Reporting .....	46
Appendix 9. Preventative Maintenance Plan.....	47

## AUTHORITY AND ENFORCEABILITY

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

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

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

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

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

## A. GENERAL CONDITIONS

### Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**
- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**
- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

### General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**
2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**
3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**
4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities: **(R 336.1213(1)(d))**
  - a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
  - c. Inspect, at reasonable times, any of the following:
    - i. Any stationary source.
    - ii. Any emission unit.
    - iii. Any equipment, including monitoring and air pollution control equipment.
    - iv. Any work practices or operations regulated or required under the ROP.
  - d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information, which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**
7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**
8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

### **Equipment & Design**

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2).<sup>2</sup> **(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:"<sup>2</sup> **(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.<sup>1</sup> **(R 336.1901(a))**
  - b. Unreasonable interference with the comfortable enjoyment of life and property.<sup>1</sup> **(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).<sup>2</sup> **(R 336.2001)**
14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**
15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

## Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate. **(R 336.1213(3)(b))**
  - a. The date, location, time, and method of sampling or measurements.
  - b. The dates the analyses of the samples were performed.
  - c. The company or entity that performed the analyses of the samples.
  - d. The analytical techniques or methods used.
  - e. The results of the analyses.
  - f. The related process operating conditions or parameters that existed at the time of sampling or measurement.
17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

## Certification & Reporting

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

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

## Permit Shield

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

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

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

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

## Revisions

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

## Reopenings

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



## Renewals

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

## Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaiming, 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.<sup>2</sup> **(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.<sup>2</sup> **(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.<sup>2</sup> **(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.<sup>2</sup> **(R 336.1201(4))**

### **Footnotes:**

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

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

## **B. SOURCE-WIDE CONDITIONS**

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

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

### C. EMISSION UNIT 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 Devices)	Installation Date/ Modification Date	Flexible Group ID
EUDIRECTHEATER	Direct natural gas fired line heater that burns natural gas or flash gas, 15 MMBTU/hr.	07-01-99	FGBOILERS
EUGENERATOR	Natural gas fired emergency generator; 1000 kilowatt (kW) (approximately 1,340 bhp).	07-01-99	NA
EUENGINE1	Natural gas fired reciprocating internal combustion compressor engine; 4,000 HP.	07-01-99	FGENGINES1
EUENGINE2	Natural gas fired reciprocating internal combustion compressor engine; 4,000 HP.	07-01-99	FGENGINES1
EUENGINE3	Natural gas fired reciprocating internal combustion compressor engine; 4,000 HP.	07-01-99	FGENGINES1
EUENGINE4	Caterpillar natural gas fired reciprocating internal combustion engine; 4,735 HP, controlled by an associated catalytic oxidizer (DVCATOX1).	08-11-05	FGENGINES2
EUENGINE5	Natural gas fired internal combustion reciprocating engine; 4,735 HP, controlled by an associated catalytic oxidizer (DVCATOX2).	09-01-06	FGENGINES2
EUENGINE6	Natural gas fired internal combustion reciprocating engine; 4,735 HP, controlled by an associated catalytic oxidizer (DVCATOX3).	09-01-06	FGENGINES
EUINDHEATER1	Indirect natural gas fired line heater; 10 MMBTU/hr.	07-01-99	FGINDHEATERS1 FGBOILERS
EUINDHEATER2	Indirect natural gas fired line heater; 10 MMBTU/hr.	07-01-99	FGINDHEATERS1 FGBOILERS
EUINDHEATER3	Indirect natural gas fired line heater; 10 MMBTU/hr.	07-01-99	FGINDHEATERS1 FGBOILERS
EUINDHEATER4	Natural gas fired line heater; 10 MMBTU/hr.	11-01-06	FGINDHEATERS2 FGBOILERS
EUHCTANK1	Hydrocarbon storage tank; 29,400 gallon (gal.), controlled by an enclosed flare (DVFLARE) or direct fired heater (EUDIRECTHEATER).	07-01-99	FGHCTANKS
EUHCTANK2	Hydrocarbon storage tank; 29,400 gal., controlled by DVFLARE or direct fired heater (EUDIRECTHEATER).	07-01-99	FGHCTANKS

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Devices)	Installation Date/ Modification Date	Flexible Group ID
EUHCTANK3	Hydrocarbon storage tank; 29,400 gal., controlled by DVFLARE or direct fired heater (EUDIRECTHEATER).	07-01-99	FGHCTANKS
EUHCTANK4	Water and hydrocarbon storage tank; 29,400 gal., controlled by an enclosed flare or direct fired heater (EUDIRECTHEATER).	07-01-99	FGHCTANKS
EUP1_BMBLR1	Plant #1 Aux Bldg. Benchmark 2.0 Boiler #1	01-01-99	FGBOILERS
EUP1_BMBLR2	Plant #1 Aux Bldg. Benchmark 2.0 Boiler #2	01-01-99	FGBOILERS
EUP1_BMBLR3	Plant #1 Aux Bldg. Benchmark 2.0 Boiler #3	01-01-99	FGBOILERS
EUP1_KC1000	Plant #1 Aux Bldg. KC 1000 Boiler	01-01-99	FGBOILERS
EUP2_BMBLR1	Plant #2 Aux Bldg. Benchmark 2.0 Boiler #1	01-01-99	FGBOILERS
EUP2_BMBLR2	Plant #2 Aux Bldg. Benchmark 2.0 Boiler #2	01-01-99	FGBOILERS
EUP2_KC1000	Plant #2 Aux Bldg. KC 1000 Boiler	01-01-99	FGBOILERS
EUCOLDCLEANERS	Any new cold cleaner that is exempt from NSR permitting by R 336.1281(h), or R 336.1285(r)(iv), pursuant to R 336.1278.	After 07-01-79	FGCOLDCLEANERS
EURULE285 (mm)	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278 and 285 (mm).	NA	FGRULE285(mm)

**EUDIRECTHEATER  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

A 15 MMBTU/hr. direct natural gas fired heater used to regenerate desiccant beads that dehydrate the natural gas as it is withdrawn from the reservoir. This heater is capable of burning natural gas or flash gas from the hydrocarbon storage tanks (FGHCTANKS).

**Flexible Group ID:** FGBOILERS

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	3.2 tons <sup>2</sup>	Per 12-month rolling time period	EUDIRECTHEATER	SC VI.2	R 336.1205(1)
2. CO	3.9 tons <sup>2</sup>	Per 12-month rolling time period	EUDIRECTHEATER	SC VI.2	R 336.1205(1)

**II. MATERIAL LIMITS**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Total Gas Usage (Natural Gas or flash gas)	45 million cubic feet <sup>2</sup>	Per 12-month rolling time period	EUDIRECTHEATER	SC VI.1	R 336.1205(1)

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall only fire pipeline quality natural gas, as defined in 40 CFR 72.2, in EUDIRECTHEATER, or flash gas from the liquid hydrocarbon tanks (EUHCTANK1, EUHCTANK2, EUHCTANK3). **(R 336.1301(1))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall keep monthly and 12-month rolling records of the total natural gas and the flash gas used in EUDIRECTHEATER.<sup>2</sup> **(R 336.1205(1))**
2. The permittee shall keep monthly and 12 month rolling records of the total NOx and CO emissions, in tons, for EUDIRECTHEATER. The calculated emissions for each calendar month shall be available to the AQD upon request. **(R 336.1213(3))**

See Appendix 7

**VII. REPORTING**

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

See Appendix 8

**VIII. STACK/VENT RESTRICTIONS**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVDIRECTHEATER	NA	20 <sup>2</sup>	<b>R 336.1201(3)</b>

**IX. OTHER REQUIREMENTS**

1. The permittee must comply with the applicable requirements in 40 CFR Part 63, Subpart DDDDD, for existing boilers and process heaters. **(40 CFR 63.7495(b))**

**Footnotes:**

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

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

**EUGENERATOR  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

1,000 kW (approximately 1,340 bhp), natural gas fired, emergency generator.

Flexible Group ID: NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO <sub>x</sub>	2.8 tons <sup>2</sup>	Per 12-month rolling time period	EUGENERATOR	SC VI.2	R 336.1205(1)
2. CO	2.7 tons <sup>2</sup>	Per 12-month rolling time period	EUGENERATOR	SC VI.2	R 336.1205(1)

**II. MATERIAL LIMITS**

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

**III. PROCESS/OPERATIONAL RESTRICTIONS**

- The total operating hours of EUGENERATOR shall not exceed 876 hours per 12-month rolling time period.<sup>2</sup> (R 336.1205(1))
- The permittee shall only fire pipeline quality natural gas, as defined in 40 CFR 72.2, in EUGENERATOR. (R 336.1301(1))

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

- The permittee shall keep monthly and 12 month rolling records of the total hours of operation of EUGENERATOR.<sup>2</sup> (R 336.1205(1))



2. The permittee shall keep monthly and 12 month rolling records of the total NOx and CO emissions, in tons, for EUGENERATOR. The calculated emissions for each calendar month shall be available to the AQD upon request. **(R 336.1213(3))**

See Appendix 7

**VII. REPORTING**

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

See Appendix 8

**VIII. STACK/VENT RESTRICTIONS**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
NA	NA	NA	NA

**IX. OTHER REQUIREMENTS**

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

**Footnotes:**

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

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

## D. FLEXIBLE GROUP CONDITIONS

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

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

### FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGENGINES1	Three natural gas fired reciprocating engines used to drive natural gas compressors. All three engines are rated at 4,000 HP each.	EUENGINE1 EUENGINE2 EUENGINE3
FGENGINES2	Three 4-stroke lean burn (4SLB), natural gas fired reciprocating engines used to drive natural gas compressors. Each engine is rated at 4,735 HP and has an associated catalytic oxidizer.	EUENGINE4 EUENGINE5 EUENGINE6
FGINDHEATERS1	Three natural gas fired indirect heaters. All three heaters are rated at 10 MMBTU/hr.	EUINDHEATER1 EUINDHEATER2 EUINDHEATER3
FGINDHEATERS2	One 10 MMBTU/hr. indirect gas fired line heaters.	EUINDHEATER4
FGHCTANKS	Four 29,400-gallon storage tanks. EUHCTANK1, EUHCTANK2, and EUHCTANK3 are used to hold liquid hydrocarbon that has been separated from the natural gas by the desiccant towers during periods of withdrawal. EUHCTANK4 contains a mixture of water and hydrocarbon. These storage tanks are controlled by an enclosed flare or the direct fired heater (EUDIRECTHEATER) (PTI No. 132-13).	EUHCTANK1 EUHCTANK2 EUHCTANK3 EUHCTANK4
FGCOLDCLEANERS	Any new cold cleaner (placed into operation after 7/1/79) that is exempt from NSR permitting by R 336.1281(2)(h), or R 336.1285(2)(r)(iv), pursuant to R 336.1278.	EUCOLDCLEANERS
FGBOILERS	Boilers and process heaters that are designed to fire only natural gas and are subject to 40CFR Part 63 Subpart DDDDD.	EUDIRECTHEATER EUINDHEATER1 EUINDHEATER2 EUINDHEATER3 EUINDHEATER4 EUP1_BMBLR1 EUP1_BMBLR2 EUP1_BMBLR3 EUP1_KC1000 EUP2_BMBLR1 EUP2_BMBLR2 EUP2_KC1000
FGRULE285 (2) (mm)	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278 and 285 (mm).	EURULE285(mm)

**FGENGINES1  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Three 4,000 HP natural gas fired reciprocating engines used to drive natural gas compressors for transport between storage field and pipeline system.

**Emission Units:** EUENGINE1, EUENGINE2, EUENGINE3

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1a. NOx	1.3 grams <sup>2</sup>	Per horsepower-hour at 100% torque and 100% speed, per engine	EUENGINE1 EUENGINE2 EUENGINE3	SC V.1 - V.3	R 336.1205(1)
1b. NOx	227.0 tons <sup>2</sup>	12-month rolling, as determined at the end of each calendar month	FGENGINES1	SC VI.1	R 336.1205(1) 40 CFR 52.21(c) & (d)
2a. CO	2.0 grams <sup>2</sup>	Per horsepower-hour at 100% torque and 100% speed, per engine	EUENGINE1 EUENGINE2 EUENGINE3	SC V.1 - V.3	R 336.1205(1)
2b. CO	228.6 tons <sup>2</sup>	12-month rolling, as determined at the end of each calendar month	FGENGINES1	SC VI.1	R 336.1205(1) 40 CFR 52.21(c) & (d)
3a. VOC	0.90 gram <sup>2</sup>	Per horsepower-hour at 100% torque and 100% speed, per engine	EUENGINE1 EUENGINE2 EUENGINE3	SC V.1 - V.3	R 336.1205(1)
3b. VOC	103.8 tons <sup>2</sup>	12-month rolling, as determined at the end of each calendar month	FGENGINES1	SC VI.1	R 336.1205(1) R 336.1702(a)

**II. MATERIAL LIMITS**

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

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate FGENGINES1 unless the clean-burn combustion system is installed and operating properly.<sup>2</sup> (R 336.1205, R 336.1702(a), 40 CFR 52.21 (c)&(d))
2. The permittee shall only fire pipeline quality natural gas, as defined in 40 CFR 72.2, in FGENGINES1. (R336.1301(1))

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

NA

#### **V. TESTING/SAMPLING**

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

1. Within one year of the issuance of this Renewable Operating Permit, the permittee shall test each engine, at owner's expense, to verify NO<sub>x</sub>, CO, and VOC emission rates and establish operating ranges of speed and torque in which the engines can operate in compliance with their emission limits. **(R 336.1213(3)(b))**
2. When monthly NO<sub>x</sub>, CO, and/or VOC emission calculations show emissions are within 25% of the 12-month rolling time period emission limit specified in FGENGINES1 I.1b, I.2b, and/or I.3b respectively, the permittee shall conduct stack testing within 180 days to verify emission factors used in calculating those emissions. **(R 336.1213(3)(b))**
3. All testing, sampling, analytical and calibration procedures used for NO<sub>x</sub>, CO, and VOC test programs shall be performed in accordance with 40 CFR, Part 60, and Appendix A, Methods 2, 3A, 7E, 10, and 25A, or other acceptable reference methods approved by AQD. **(R 336.1213(3))**

#### **VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall keep monthly and 12 month rolling records of the total NO<sub>x</sub>, CO and VOC emissions, in tons, for FGENGINES1. The calculated emissions for each calendar month shall be available to the AQD upon request. **(R 336.1213(3))**
2. The permittee shall monitor engine operating parameters on a continuous basis to ensure that engine speed and torque are within ranges for which engine emission factors have been based upon. **(R 336.1213(3))**
3. The permittee shall maintain on file normal operating ranges specified by the manufacturer or established through stack testing for engine parameters listed in FGENGINES1 VI.6. **(R 336.1213(3))**
4. If normal operating ranges specified by the manufacturer or established through stack testing are exceeded, the permittee shall implement and record preventive maintenance activities necessary to ensure that system parameters are operated within normal operating ranges. **(R 336.1213(3))**
5. For each engine, an audible alarm shall be installed and operated when system parameters are outside of normal operating ranges as specified by the manufacturer or established through stack testing. **(R 336.1213(3))**
6. The permittee shall record the following critical operating parameters every four hours of engine operation, when the engine is running, on the daily Engine/Compressor log sheets. **(R 336.1213(3))**:
  - a. Engine speed (in revolutions per minute)
  - b. Engine torque (in percent)
  - c. Air manifold temperature
  - d. Air manifold pressure
  - e. Ignition Timing
7. The permittee shall monitor and record the following for each engine on a continuous basis, when the engine is running **(R 336.1213(3))**:
  - a. Hours of engine operation
  - b. Average hourly percent torque
  - c. Average hourly percent speed
  - d. Fuel consumption

- The permittee shall conduct preventive maintenance activities in accordance with Appendix 9 and keep a record of these activities. **(R 336.1213(3))**

See Appendix 7

**VII. REPORTING**

- Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
- Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
- Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
- The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. **(R 336.2001(3))**
- The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**
- The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

See Appendix 8

**VIII. STACK/VENT RESTRICTION(S)**

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVENGINE1	48 <sup>2</sup>	52 <sup>2</sup>	40 CFR 52.21(c) & (d)
2. SVENGINE2	48 <sup>2</sup>	52 <sup>2</sup>	40 CFR 52.21(c) & (d)
3. SVENGINE3	48 <sup>2</sup>	52 <sup>2</sup>	40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENTS**

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

**Footnotes:**

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

**FGENGINES2  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Three spark ignition, 4-stroke lean burn (4SLB), 4,735 HP Caterpillar natural gas fired reciprocating engines used to drive natural gas compressors. Each engine is subject to 40 CFR Part 63 Subparts A and ZZZZ and has an associated catalytic oxidizer.

**Emission Units:** EUENGINE4, EUENGINE5, EUENGINE6

**POLLUTION CONTROL EQUIPMENT**

Catalytic Oxidizers, with at least 93 percent control efficiency (DVCATOX1, DVCATOX2, DVCATOX3)

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO <sub>x</sub>	0.90 g/hp-hr <sup>2</sup>	Hourly	Each engine in FGENGINES2	SC.V.1	<b>R336.1205(1)(a) and (3), 40 CFR 52.21 (c) and (d)</b>
2. NO <sub>x</sub>	130.4 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	FGENGINES2	SC VI.4	<b>R336.1205(1)(a) and (3)</b>
3. CO	2.5 g/hp-hr <sup>2</sup> pre-catalyst	Hourly	Each engine in FGENGINES2	SC.V.2	<b>R336.1205(1)(a) and (3), 40 CFR 52.21 (c) and (d)</b>
4. CO	25.4 tpy <sup>a,2</sup>	12-month rolling time period as determined at the end of each calendar month.	FGENGINES2	SC.VI.5	<b>R336.1205(1)(a) and (3), 40 CFR Part 63 Subpart ZZZZ</b>
5. Carbon Monoxide	93% reduction or more in CO emissions	4-hour rolling average	FGENGINES2	SC V.2 SC V.4 SC VI.2 SC VI.3	<b>40 CFR 63.6600(b)</b>
6. VOC	1.0 g/hp-hr <sup>2</sup>	Hourly	Each engine in FGENGINES2	SC.V.1	<b>R336.1702(a)</b>
7. VOC	144.8 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	FGENGINES2	SC.VI.4	<b>R336.1205(1)(a) and (3)</b>

<sup>a</sup> Emissions do not include break-in emissions, as defined in SCIII.3, and are post catalyst @ 93% control.

**II. MATERIAL LIMITS**

1. The permittee shall only burn pipeline natural gas in FGENGINES2.<sup>2</sup> (**R 336.1205, R 336.1224, R 336.1225, R 336.1702(a)**)

### **III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUENGINE4, EUENGINE5, or EUENGINE6 unless the "Preventive Maintenance Plan" specified in Rule 911(2), is implemented and maintained. Amendment to the plan shall be subject to the review and approval of the AQD District Supervisor.<sup>2</sup> **(R 336.1910, R 336.1911)**
2. The permittee shall operate FGENGINES2 within normal operating ranges specified by the manufacturer or established through stack testing. If normal operating ranges are exceeded, the permittee shall implement a malfunction abatement plan (MAP), specified in Rule 911(2), and other activities necessary to ensure that system parameters are operated within normal operating ranges.<sup>2</sup> **(R 336.1911, R 336.1912, 40 CFR 52.21 (c) and (d))**
3. The total break-in hours for each engine in FGENGINES2 shall not exceed 200 hours. The break-in period is defined as the period of time from initiation of combustion firing.<sup>2</sup> **(40 CFR 63.6640(d))**
4. The permittee shall implement and maintain a plan that describes how emissions will be minimized during all startups, shutdowns and malfunctions. The plan shall incorporate requirements listed in 40 CFR 63.6(e)(3). Deviations from the emission or operating limitations that occur during a period of startup, shutdown, or malfunction are not violations if it is demonstrated that the startup, shutdown and malfunction plan was implemented. **(40 CFR 63.6605(b), 40 CFR 63.6640(d))**
5. The permittee shall be in compliance with the applicable emission and operating limitations at all times except during periods of startup, shutdown and malfunction and as allowed in SC III.2. **(40 CFR 63.6605(a))**
6. The permittee shall operate and maintain, at all times, any engine, and associated air pollution control equipment and monitoring equipment, in FGENGINES2 in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.6605(b))**
7. 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 in Tables 1a, 2a, 2c, and 2d to 40 CFR 63, Subpart ZZZZ apply. **(40 CFR 63.6625(h))**

### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate each unit in FGENGINES2, except as allowed in SC III.3, unless the respective catalytic oxidation system for that engine is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes the following:<sup>2</sup> **(R 336.1205(1)(a) and (3), R 336.1224, R 336.1225, R 336.1910, 40 CFR 63.6640(a), Table 2b Item 1 in 40 CFR Part 63 Subpart ZZZZ):**
  - a. Catalyst replacement is performed on a schedule based on the manufacturer's recommended guidelines.
  - b. Catalyst bed inlet temperature greater than or equal to 450°F and less than or equal to 1350°F.
  - c. Pressure drop across the catalyst shall be recorded and included in the Startup/Shutdown/Malfunction Plan. Subsequent pressure drops, at full speed, or other parameters that denote normal operating ranges as mentioned in SC.III.2, at 100 percent load (plus or minus 10%), shall be within the measurement of the initial test, plus or minus 2 inches of water.
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record, on a continuous basis and according to the requirements in 40 CFR 63.6625(b) and 40 CFR 63.6635, the temperature at the inlet of the catalyst for each stationary RICE. These requirements include, but are not limited to, the following: **(40 CFR 63.6625(b))**
  - a. Preparing a quality control program described in 40 CFR 63.6625(b) and 40 CFR 63.8(d), which includes, but is not limited to:
    - i. The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;
    - ii. Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;
    - iii. Equipment performance evaluations, system accuracy audits, or other audit procedures;

- iv. Initial and any subsequent calibration of the CMS;
  - v. Determination and adjustment of the calibration drift of the CMS;
  - vi. Preventive maintenance of the CMS, including spare parts inventory;
  - vii. Data recording, calculations, and reporting;
  - viii. Accuracy audit procedures, including sampling and analysis methods;
  - ix. Program of corrective action for a malfunctioning CMS;
  - x. Conduct performance evaluations described in 40 CFR 63.8(e);
  - xi. Keeping the necessary parts for routine repairs of the affected CPMS equipment readily available
  - xii. Verification of operational status that includes, at a minimum, completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system;
- b. Installing, operating, and maintaining each CPMS in continuous operation according to the procedures in your site-specific monitoring plan. **(40 CFR 63.6625(b)(2))**
- c. The CPMS must collect data at least once every 15 minutes (see also 40 CFR 63.6635) **(40 FR 63.6625(b)(3))**
- d. For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger **(40 CFR 63.6625(b)(4))**
- e. Conducting the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually. **(40 CFR 63.6625(b)(5))**
- f. Conducting a performance evaluation of each CPMS in accordance with your site-specific monitoring plan. **(40 CFR 63.6625(b)(6))**.
- g. An alternative monitoring method may be requested and approved pursuant to 40 CFR 63.8(f); **(40 CFR 63.6625(b), 40 CFR 63.6630, 40 CFR 63.6635, 40 CFR 63.6640)**
- h. Data must be reduced as described in 40 CFR 63.8(g). **(40 CFR 63.6625(b), 40 CFR 63.6630, 40 CFR 63.6635, 40 CFR 63.6640)**

## **V. TESTING/SAMPLING**

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

1. Within 5 years of the previous NO<sub>x</sub> and VOC emissions rate testing, permittee shall verify NO<sub>x</sub> and VOC emission rate from each engine included in FGEngines2, by testing at owner's expense, in accordance with Department requirements. Testing must be conducted at 100 percent speed and load (+/- 10 percent). Engine operating parameters affecting emissions, load calculations, and catalyst performance shall be monitored and recorded during testing to establish normal operating ranges. The operating parameters shall be included in the stack test plan and report. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results, including established emission factors and operating ranges for parameters specified in FGEngines2 VI.8 and Appendix 8, to the AQD within 60 days following the last day of the test.<sup>2</sup> **(R 336.1205(1)(a) and (3), R 336.1225, R 336.2001, R 336.2003, R 336.2004)**
2. The permittee shall verify the efficiency of each catalytic system in FGEngines2, using CO emission rates as a surrogate, by testing at owner's expense, in accordance with Department requirements. Testing must be conducted at 100% load ±10%, semiannually. Engine operating parameters affecting emissions, load calculations, and catalyst performance shall be monitored and recorded during testing to establish normal operating ranges. The operating parameters shall be included in the stack test plan and report. After two consecutive passing events, the test plan can be changed to annually. If the results of any subsequent annual performance test indicate that an engine in FGEngines2 is not in compliance with the CO or formaldehyde emission limitation, or deviate from the operating limitations, the permittee must resume semiannual performance tests. The performance tests shall be conducted according to 40 CFR 63.6620 and Table 4 of 40 CFR Part 63 Subpart ZZZZ. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. In the test plan, the permittee must identify what parameters will be used to denote normal operating ranges as approved by the AQD Technical Programs Unit and the District. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.<sup>2</sup> **(R 336.1205(1)(a) and (3), R 336.1225, R 336.2001, R 336.2003, R 336.2004, 40 CFR 63.6615, 40 CFR 63.6620, 40 CFR 63.6630, 40 CFR 63.6640, 40 CFR 63 Subpart ZZZZ Tables 3, 4 & 6)**



3. If an engine in FG-ENGINES2 is non-operational the permittee does not need to start up the engine solely to conduct the performance test. The permittee can conduct the performance test when the non-operational engine is started up again.<sup>2</sup> **(40 CFR 63.6620(b))**
4. If the catalyst is changed, the permittee shall reestablish the operating parameters measured during the initial test and conduct a subsequent test to demonstrate compliance with the applicable emission limitation. The permittee shall determine compliance with the percent reduction requirement using the equation in 40 CFR 63.6620(e). **(40 CFR 63.6620(e))**

## **VI. MONITORING/RECORDKEEPING**

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

1. All records shall be completed and made available by the 30th day of each calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.<sup>2</sup> **(R 336.1201(3))**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a continuous parameter monitoring system (CPMS) to continuously monitor (once every 15 minutes), and record the catalyst inlet temperature of each catalyst in FG-ENGINES2. The permittee shall then reduce the data to 4-hour rolling averages.<sup>2</sup> **(R 336.1225, 40 CFR 63.6625(b), 40 CFR Subpart ZZZZ Table 6)**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor, by observation, the pressure drop across each catalytic oxidizer in FG-ENGINES2 while in operation once per month. The permittee shall keep, in a satisfactory manner, records of the monthly pressure drop measurement for each catalyst.<sup>2</sup> **(R 336.1225, 40 CFR 63.6640(a) 40 CFR 63 Subpart ZZZZ Table 6)**
4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling NO<sub>x</sub> and VOC emission calculation records for FG-ENGINES2. The calculated emissions for each calendar month shall be available to the AQD upon request.<sup>2</sup> **(R 336.1205 (1)(a) and (3))**
5. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling CO emission calculation records for FG-ENGINES2. All records shall be made available to the Department upon request.<sup>2</sup> **(R 336.1205 (1)(a) and (3), 40 CFR Part 63 Subpart ZZZZ)**
6. The permittee shall keep, in a satisfactory manner, records of all maintenance done on each engine in FG-ENGINES2. All records shall be made available to the Department upon request.<sup>2</sup> **(R 336.1225, R 336.1910)**
7. The permittee shall keep, in a satisfactory manner, records of all maintenance done on each catalytic oxidation system for FG-ENGINES2. All records shall be made available to the Department upon request.<sup>2</sup> **(R 336.1225, R 336.1910)**
8. The permittee shall keep continuous and 4 hour rolling average records of the inlet temperature of the catalytic oxidizers for FG-ENGINES2. All records shall be made available to the Department upon request.<sup>2</sup> **(R 336.1225, R 336.1910, Table 6 in 40 CFR Part 63 Subpart ZZZZ)**
9. The permittee shall keep the following records:
  - a. A copy of each notification and report submitted to comply with 40 CFR Part 63 Subpart ZZZZ, and the documentation supporting any notification. **(40 CFR 63.6655(a)(1))**
  - b. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. **(40 CFR 63.6655(a)(2))**
  - c. Records of all performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii) **(40 CFR 63.6655(a)(3))**
  - d. Records of all required maintenance performed on the air pollution control and monitoring equipment. **(40 CFR 63.6655(a)(4))**

- 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. **(40 CFR 63.6655(a)(5))**
  - f. For each CEMS or CPMS, records listed below:  
**(40 CFR 63.6655(b)(1))**
    - i. Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);
    - ii. All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);  
(A) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph 40 CFR 63.10(b)(2)(vii), if the administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.
    - iii. All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;
    - iv. All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;
    - v. All CMS calibration checks;
    - vi. All adjustments and maintenance performed on CMS;
    - vii. Previous (i.e., superseded) versions of the performance evaluation plan, if the performance evaluation plan is revised. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. **(40 CFR 63.6655(b)(2))**
    - viii. For each CEMS or CPMS, requests for alternatives to the relative accuracy test as required in 40 CFR 63.8(f)(6)(i) if applicable. **(40 CFR 63.6655(b)(3))**
10. The permittee shall record the following critical operating parameters every four hours of engine operation, when the engine is running, on the daily Engine/Compressor log sheets. **(R 336.1213(3))**:
- a. Engine speed (in revolutions per minute)
  - b. Engine torque (in percent)
  - c. Air manifold temperature
  - d. Air manifold pressure
  - e. Ignition Timing

See Appendix 7

## **VII. REPORTING**

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
- 4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**
- 5. For each engine in FGEngines2, the permittee shall submit to the AQD District Supervisor, a semi-annual compliance report, as specified in 40 CFR 63.6650, which contains: **(40 CFR 63.6640(b), 40 CFR 63.6650, 40 CFR 63.6660)**
  - a. All deviations during the reporting period from any applicable emission limitation or operating limitation and all periods during which the CPMS or CEMS was out of control as defined in 40 CFR 63.8(c)(7).

- b. If there were no deviations from any applicable emission limitations or operating limitations or no periods that the CPMS or CEMS was out of control, the report shall contain a statement that there were no deviations and no periods during which the CPMS or CEMS was out of control during the reporting period. Marking the no deviation box on the annual and semi-annual certification form shall satisfy this condition.
- c. The compliance report must also contain the following information listed below:
- i. Company name and address
  - ii. Certification of the report by a responsible official
  - iii. Date of report and beginning and ending dates of the reporting period
  - iv. The number of startups, shutdowns and malfunctions that occurred during the reporting period and demonstration that the Startup/Shutdown/Malfunction Plan was followed during such events
  - v. A brief description of the stationary RICE
  - vi. A brief description of the CPMS or CEMS
  - vii. The date of the latest CPMS or CEMS certification or audit
  - viii. A description of any changes in the CPMS or CEMS, processes or controls since the last reporting period
  - ix. An identification of each parameter monitored and whether CO or formaldehyde was monitored
  - x. The date and time that each malfunction started and stopped
  - xi. The date, time and duration that each CPMS or CEMS was out of control (as defined in 40 CFR 63.8(c)(7)) and the corrective actions taken
  - xii. The date, time and duration that each CPMS or CEMS was inoperative, except for low-level and high-level checks
  - xiii. The date and time that each deviation started and stopped and whether each deviation occurred during a period of malfunction or during another period
  - xiv. A summary of the total duration of the deviations during the reporting period and the percent of the total duration during the total source operating time of that reporting period
  - xv. A breakdown of the total duration of deviations due to control equipment problems, process problems, other known causes and any unknown causes
  - xvi. A summary of the total duration of CMPS or CEMS downtime during the reporting period and the percent of the total duration of downtime during the total source operating time of that reporting period
  - xvii. A copy of the compliance report shall be kept on file for a period of at least five years (at least two at the site) and made available to the Department upon request. **(40 CFR 63.6640(b), 40 CFR 63.6650, 40 CFR 63.6660)**
6. The permittee shall submit to the AQD District Supervisor, a startup, shutdown and malfunction report if actions addressing the startup, shutdown and malfunction were not consistent with the Startup/Shutdown/Malfunction Plan. Notification of the event and the actions taken during the event shall be submitted by fax or telephone within 2 working days after the event occurred. Within 7 working days after the event, the permittee shall submit a letter to the AQD District Supervisor which contains the information specified in 40 CFR 63.10(d)(5)(ii) including:
- a. Company name and address
  - b. Certification of the report by a responsible official
  - c. Circumstances of the event
  - d. Reasons for not following the Startup/Shutdown/Malfunction Plan
  - e. Whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred
- A copy of the report shall be kept on file for a period of at least five years (at least two years at the site) and made available to the Department upon request. **(40 CFR 63.6650, 40 CFR 63.6660)**
7. The permittee shall submit all applicable notifications specified in 40 CFR 63.7(b) and (c), 63.8 (e), (f)(4) and (f)(6), and 63.9(b) through (e), (g) and (h) by the dates specified. **(40 CFR 63.6645(a))**
8. The permittee shall report each instance in which requirements of Table 8 of Subpart ZZZZ are not met. **(40 CFR 63.6640(e))**

See Appendix 8

**VIII. STACK/VENT RESTRICTIONS**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVENGINE4	32 <sup>2</sup>	58 <sup>2</sup>	<b>40 CFR 52.21 (c) &amp; (d)</b>
2. SVENGINE5	32 <sup>2</sup>	58 <sup>2</sup>	<b>40 CFR 52.21 (c) &amp; (d)</b>
3. SVENGINE6	32 <sup>2</sup>	58 <sup>2</sup>	<b>40 CFR 52.21 (c) &amp; (d)</b>

**IX. OTHER REQUIREMENTS**

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ for Stationary Reciprocating Internal Combustion Engines.<sup>2</sup> **(40 CFR Part 63, Subparts A and ZZZZ)**

**Footnotes:**

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

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

**FGINDHEATERS1  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Three 10 MMBTU/hr. natural gas fired indirect heaters used to prevent freezing when the natural gas proceeds from the storage reservoir to the pipeline.

**Emission Units:** EUINDHEATER1, EUINDHEATER2, EUINDHEATER3

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	7.1 tons <sup>2</sup>	12-month rolling, as determined at the end of each calendar month	FGINDHEATERS1	SC VI.2	R 336.1205(1)
2. CO	4.4 tons <sup>2</sup>	12-month rolling, as determined at the end of each calendar month	FGINDHEATERS1	SC VI.2	R 336.1205(1)

**II. MATERIAL LIMITS**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural Gas	100 million cubic feet <sup>2</sup>	12-month rolling, as determined at the end of each calendar month	FGINDHEATERS1	SC VI.1	R 336.1205(1)

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall only fire pipeline quality natural gas, as defined in 40 CFR 72.2, in FGINDHEATERS1. (R 336.1301(1))

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall monitor the natural gas usage for FGINDHEATERS1 on a monthly basis. **(R 336.1213(3))**
2. The permittee shall keep monthly and 12 month rolling records of the total natural gas usage for FGINDHEATERS1. **(R 336.1213(3))**
3. The permittee shall keep monthly and 12 month rolling records of the total NOx and CO emissions, in tons, for FGINDHEATERS1. The calculated emissions for each calendar month shall be available to the AQD upon request. **(R 336.1213(3))**

See Appendix 7

**VII. REPORTING**

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

See Appendix 8

**VIII. STACK/VENT RESTRICTIONS**

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVINDHEATER1	NA	20 <sup>2</sup>	40 CFR 52.21(c)&(d)
2. SVINDHEATER2	NA	20 <sup>2</sup>	40 CFR 52.21(c)&(d)
3. SVINDHEATER3	NA	20 <sup>2</sup>	40 CFR 52.21(c)&(d)

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

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

**FGINDHEATERS2  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

One10 MMBTU/hr. natural gas fired indirect heaters used to prevent freezing of the pipelines when the pressure of the natural gas is reduced from the storage reservoir pressure to the pipeline pressure.

**Emission Units:** EUINDHEATER4

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	1.8 pounds <sup>2</sup>	Per hour, per unit	EUINDHEATER4	SC V.1	R 336.1205(1) (a) and (3)
2. CO	1.1 pounds <sup>2</sup>	Per hour, per unit	EUINDHEATER4	SC V.1	R 336.1205(1) (a) and (3)

**II. MATERIAL LIMITS**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural Gas	67 million standard cubic feet <sup>2</sup>	12-month rolling, as determined at the end of each calendar month	FGINDHEATERS2	SC VI.2	R 336.1205(1) and (3) R 336.1225 R 336.1702(a) 40 CFR 52.21 (c) & (d)

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall only burn natural gas in FGINDHEATERS2.<sup>2</sup> (R 336.1225, R 336.1702(a))

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

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

1. The department may require the owner or operator to conduct performance tests in 40 CFR 63 Part 60, Appendix A for NOx and CO, 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). (R 336.2001)

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall monitor the natural gas usage for FGINDHEATERS2 on a monthly basis. **(R 336.1205(1) and (3))**
2. The permittee shall keep monthly and 12 month rolling records of the total natural gas usage for FGINDHEATERS2. **(R 336.1205(1) and (3))**

See Appendix 7

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. **(R 336.2001(3))**
5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**
6. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

See Appendix 8

**VIII. STACK/VENT RESTRICTIONS**

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVINDHEATER4	NA	20 <sup>2</sup>	R 336.1225, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

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



**FGHCTANKS**  
**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Four 29,400-gallon storage tanks. Three of the tanks are used to hold liquid hydrocarbon which has been separated from the natural gas by the desiccant towers during periods of withdrawal. One tank contains a mixture of water and hydrocarbon. These storage tanks are controlled by an enclosed flare or the direct fired heater (EUDIRECTHEATER).

**Emission Units:** EUHCTANK1, EUHCTANK2, EUHCTANK3, EUHCTANK4

**POLLUTION CONTROL EQUIPMENT**

Enclosed flare or direct fired heater (EUDIRECTHEATER)

**I. EMISSION LIMITS**

NA

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall, at all times, maintain and operate the flame sensor for the pilot flame at the flare in accordance with manufacturer recommendations and perform necessary maintenance, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.<sup>2</sup> **(R 336.1225, R 336.1702(a))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. During periods of natural gas withdrawal, the flare controlling FGHCTANKS shall be installed and operating properly.<sup>2</sup> **(R 336.1910)**
2. During periods of natural gas withdrawal, the permittee shall operate a continuously burning pilot flame at the flare associated with FGHCTANKS.<sup>2</sup> **(R 336.1225, R 336.1702(a))**

**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. During periods of natural gas withdrawal, the permittee shall continuously monitor the presence of a pilot flame on the flare associated with FGHCTANKS in a manner and with instrumentation acceptable to the AQD District Supervisor.<sup>2</sup> **(R 336.1225, R 336.1702(a))**

2. During periods of natural gas withdrawal, the permittee shall record the presence of a pilot flame on the flare associated with FGHCTANKS on a daily basis in a manner acceptable to the AQD District Supervisor.<sup>2</sup> **(R 336.1225, R 336.1702(a))**

**VII. REPORTING**

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

See Appendix 8

**VIII. STACK/VENT RESTRICTIONS**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVFLARE	NA	29 <sup>2</sup>	<b>R 336.1225, R 336.1702(a)</b>

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

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

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

## **FG-COLD CLEANERS FLEXIBLE GROUP CONDITIONS**

### **DESCRIPTION**

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, 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:** EUCOLDCLEANERS

### **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**

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

#### **VIII. STACK/VENT RESTRICTION(S)**

NA

#### **IX. OTHER REQUIREMENT(S)**

NA

**FGBOILERS  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Requirements for existing Gas 1, (Natural Gas only) for existing Boilers and Process Heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD.

**Emission Units:** The collection of all existing industrial, commercial, and institutional boilers and process heaters within the “units designed to burn gas 1 fuel” subcategory as defined in 40 CFR 63.7575 at a major source of HAPs. At the time of permit renewal:

Less than or equal to 5 MMBtu/hr	EUP1_BMBLR1 EUP1_BMBLR2 EUP1_BMBLR3 EUP1_KC_1000 EUP2_BMBLR1 EUP2_BMBLR2 EUP2_KC_1000
Greater than 5 MMBtu/hr and less than 10 MMBtu/hr	NA
Equal to or greater than 10 MMBtu/hr	EUINDHEATER1 EUINDHEATER2 EUINDHEATER3 EUINDHEATER4 EUDIRECTHEATER

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

1. The permittee shall only burn natural gas as defined in 40 CFR 63.7575. **(40 CFR 63.7499(I))**

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee must meet the tune-up and Energy Assessment work practice standards for each applicable boiler or process heater at the source. **(40 CFR 63.7500(a)(1), 40 CFR Part 63, Subpart DDDDD, Table 3, Nos. 1-4)**
2. The permittee must operate and maintain affected sources in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**
3. The permittee may obtain approval from the Administrator to use an alternative to the work practice standards noted in SC III.1 and/or SC III.2 above. **(40 CFR 63.7500(b))**

4. The permittee must:
  - a. Complete a tune-up every five years (61 months) for boilers/process heaters less than or equal to 5 million Btu per hour. **(40 CFR 63.7500(e), 40 CFR 63.7515(d))**
  - b. Complete a tune-up every two years (25 months) for boilers greater than 5 million Btu per hour and less than 10 million Btu per hour. **(40 CFR 63.7500(e), 40 CFR 63.7515(d))**
  - c. Complete a tune-up annually (13 months) for boilers greater than or equal to 10 million Btu per hour. **(40 CFR 63.7540(a)(10), 40 CFR 63.7515(d))**
  - d. Conduct the tune-up within 30 calendar days of startup, if the unit is not operating on the required date for a tune-up. **(40 CFR 63.7540(a)(13))**
  - e. Follow the procedures described in SC IX 4.a through 4.f for all initial and subsequent tune ups. **(40 CFR 63.7540(a)(10), 40 CFR Part 63, Subpart DDDDD, Table 3)**
  - f. Complete the Initial tune ups on all affected units no later than January 31, 2016, except as provided in **40 CFR 63.7510(j)** and **40 CFR 63.7540(a)(13)**.
5. The permittee must complete the one-time energy assessment no later than January 31, 2016. **(40 CFR 63.7510(e))**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

#### **V. TESTING/SAMPLING**

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

NA

#### **VI. MONITORING/RECORDKEEPING**

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

1. The permittee must keep a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**
2. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining three years. **(40 CFR 63.7560(a), (b), and (c))**

#### **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to paragraph (h) of 40 CFR 63.7550, stated in SC VII.7, by the date in Table 9 of 40 CFR Part 63, Subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below. For units that are subject only to a requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.5.a, biennial

tune-up according to 40 CFR 63.7540(a)(11), stated in SC IX.5.b, or five-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.5.c, and not subject to emission limits or operating limits, the permittee may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below, instead of a semi-annual compliance report. **(40 CFR 63.7550(b))**

- a. The first semi-annual compliance report must cover the period beginning on January 31, 2016 and ending on December 31. When submitting an annual, biennial, or five-year compliance report, the first compliance report must cover the period beginning on January 31, 2016 and ending on December 31 within one, two, or five years, as applicable, after the compliance date that is specified in 40 CFR 63.7495. **(40 CFR 63.7550(b)(1))**
  - b. The first semi-annual compliance report must be postmarked or submitted no later than September 15 or March 15, whichever date is the first date following the end of the first calendar half after January 31, 2016. The first annual, biennial, or five-year compliance report must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(2), 40 CFR 63.7550(b)(5))**
  - c. Each subsequent semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable one-, two-, or five-year periods from January 1 to December 31. **(40 CFR 63.7550(b)(3))**
  - d. Each subsequent semi-annual compliance report must be postmarked or submitted no later than September 15 or March 15, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and five-year compliance reports must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(4), 40 CFR 63.7550(b)(5))**
5. The permittee must include the following information in the compliance report. **(40 CFR 63.7550(c), 40 CFR 63.7550(c)(1))**
- a. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
  - b. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
  - c. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
  - d. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**
  - e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii))**
6. The permittee must submit the reports according to the procedures specified in paragraph (h)(3) of 40 CFR 63.7550, as listed below. **(40 CFR 63.7550(h))**
- a. The permittee must submit all reports required by Table 9 of 40 CFR Part 63, Subpart DDDDD electronically to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD. Instead of using the electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to 40 CFR Part 63, Subpart DDDDD is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The permittee must begin submitting reports via CEDRI no later than 90-days after the form becomes available in CEDRI. **(40 CFR 63.7550(h)(3))**

See Appendix 8

## **VIII. STACK/VENT RESTRICTION(S)**

NA

## **IX. OTHER REQUIREMENT(S)**

1. The permittee must comply with all applicable requirement in 40 CFR Part 63, Subpart DDDDD for existing boilers and process heaters. **(40 CFR 63 Subpart DDDDD)**
2. The permittee must be in compliance with the applicable work practice standards. **(40 CFR 63.7505(a))**
3. For affected sources (as defined in 40 CFR 63.7490) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, the permittee must complete a subsequent tune-up within 30 days of startup by following the procedures described in SC IX 4.a through 4.f. **(40 CFR 63.7515(g))**
4. The permittee must demonstrate continuous compliance with the tune-up requirement by completing the following: **(40 CFR 63.7540(a))**
  - a. Inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to tune-up or delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**
  - b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
  - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**
  - d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<sub>x</sub> requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
  - e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**
  - f. Maintain on-site and submit, if requested by the Administrator, the most recent periodic report containing the information as listed below. **(40 CFR 63.7540(a)(10)(vi))**
    - i. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
    - ii. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**
5. If the boiler or process heater has a heat input capacity of less than or equal to 5 million Btu per hour, the permittee may delay the burner inspection specified in SC IX 5.a until the next scheduled or unscheduled unit shutdown, but the permittee must inspect each burner at least once every 72 months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up. **(40 CFR 63.7540(a)(12))**

### **Footnotes:**

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

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



**FGRULE285 (2) (mm)**  
**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278, 278a and 285(2)(mm).

**Emission Unit:** Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278, 278a and 285(2)(mm).

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. For venting of natural gas for routine maintenance or relocation of transmission and distribution systems in amounts greater than 1,000,000 standard cubic feet, the permittee shall, at a minimum, implement measures to assure safety of employees and the public and minimize impacts to the environment. **(R 336.1285(2)(mm)(ii)(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))**

NA

**VII. REPORTING**

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

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. For venting of natural gas for routine maintenance or relocation of transmission and distribution systems in amounts greater than 1,000,000 standard cubic feet, the permittee shall notify the AQD District Supervisor prior to a scheduled pipeline venting. **(R 336.1285(2)(mm)(ii)(A))**
5. For venting of natural gas for routine maintenance or relocation of transmission and distribution systems in amounts greater than 1,000,000 standard cubic feet, the permittee shall provide necessary notification in accordance with the Michigan gas safety standards, the federal pipeline and hazardous materials safety administration standards, and the federal energy regulatory commission standards, as applicable. The permittee is not required to copy the AQD on the notifications. **(R 336.1285(2)(mm)(ii)(B))**
6. For emergency venting of natural gas in amounts greater than 1,000,000 standard cubic feet per event, the permittee shall notify the pollution emergency alert system (PEAS) within 24 hours of an emergency pipeline venting. For purposes of this requirement, an emergency is considered an unforeseen event that disrupts normal operating conditions and poses a threat to human life, health, property, or the environment if not controlled immediately. **(R 336.1285(2)(mm)(iv))**

See Appendix 8

**VIII. STACK/VENT RESTRICTION(S)**

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

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

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

### **E. NON-APPLICABLE REQUIREMENTS**

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

## APPENDICES

### Appendix 1. 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>x</sub>	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 <sub>2</sub>	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

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

**Appendix 2. Schedule of Compliance**

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

**Appendix 3. Monitoring Requirements**

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

**Appendix 4. Recordkeeping**

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

**Appendix 5. Testing Procedures**

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

**Appendix 6. Permits to Install**

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-N3391-2012. 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-N3391-2012c is being reissued as Source-Wide PTI No. MI-PTI-N3391-2017.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	201200165/ November 1, 2012	Deletion of removed emission unit.	FGINDHEATERS2
132-13	201200195/ December 4, 2014	Removes the hour limitation on the operation of the flare for the hydrocarbon tanks (FGHCTANKS).	FGHCTANKS
NA	201600079	Removed preventative maintenance not required by regulation, and kept the maintenance activities general in accordance with the regulatory requirements for the engines. The specific conditions in the ROP that referenced Appendix 9 were not changed.	NA

The following table lists the ROP amendments or modifications issued after the effective date of ROP No. MI-ROP-N3391-2017.

Permit to Install Number	ROP Revision Application Number/Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
28-04B	201900019 / July 2, 2019	Incorporate PTI 28-04B, which was for an administrative change to update the 40 CFR Part 63, Subpart ZZZZ Conditions. In addition, the following changes were made: typographical errors corrected in EUBOILER names and EUINDHEATERS; removed FGINDIRECTHEATERSDDDDD since no emission units fall in that Flexible Group; and removed FGENGINES2ZZZZ since the applicable 40 CFR Part 63, Subpart ZZZZ requirements were mostly included in FGENGINES2 Conditions issued through PTI 28-04B. There were a few Conditions that applied to FGENGINES2 in the FGENGINES2ZZZZ Table, so those Conditions were moved to FGENGINES2 Table during this Minor Modification.	EUDIRECTHEATER EUP1_BMBLR2 EUP1_BMBLR3 EUP1_KC1000 EUP2_BMBLR2 EUP2_KC1000 FGENGINES2 FGBOILERS

## 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:

### A. NO<sub>x</sub>, CO, and VOC Emission Factor Basis for Reciprocating Engines

The permittee shall calculate NO<sub>x</sub>, CO, and VOC emissions for FGENGINES1 and FGENGINES2 using emission factors based upon the most recent stack test data.

### B. 12 Month Rolling Records

Definition of 12 month rolling records for EUGENERATOR, FGENGINES1, FGENGINES2, EUDIRECTHEATER FGINDHEATERS1, and FGINDHEATERS2: A period of 12 consecutive months determined on a rolling basis with a new 12-month period beginning on the first day of each calendar month.

#### Steps for calculating the 12-month rolling total:

1. For the first 12 months - track of the total hours/emissions/throughput for each month.
2. At the end of 12 months - total the hours/emissions/throughput of operation for the year.
3. After the first 12 months - subtract the first month from the total and add the next month.
4. Repeat step 3 for each additional month.

## Appendix 8. Reporting

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

The permittee shall use the EGLE, AQD, Report Certification form (EQP 5736) and EGLE, AQD, Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must

meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

**B. Other Reporting**

The permittee shall include the following information for the reporting requirements referenced in FGENGINES1 VII.6. Alternative formats must be approved by the AQD District Supervisor.

1. Ambient Temperature
2. Barometric Pressure
3. Spark timing
4. Fuel Flow
5. Fuel Pressure
6. Air Manifold Pressure
7. Air Manifold Temperature
8. Suction Pressure
9. Discharge Pressure
10. Horsepower

**Appendix 9. Preventative Maintenance Plan**

The engines will be operated and maintained by qualified personnel. Annually, the engines will go through a basic inspection to ensure they are mechanically sound and operating correctly. Each engine will undergo the appropriate maintenance, as per the Manufacturer's Commercial Engine Maintenance Schedule. The Maintenance recommendations and records shall be subject to the review and approval of the AQD District Supervisor.