

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

EFFECTIVE DATE: June 2, 2021

ISSUED TO

**ANR Pipeline Company  
Central Charlton Compressor Station**

State Registration Number (SRN): B7390

LOCATED AT

14490 Beckett Road, Johannesburg, Otsego County Michigan 49751

**RENEWABLE OPERATING PERMIT**

Permit Number: MI-ROP-B7390-2021

Expiration Date: June 2, 2026

Administratively Complete ROP Renewal Application Due Between  
December 2, 2024 and December 2, 2025

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

**SOURCE-WIDE PERMIT TO INSTALL**

Permit Number: MI-PTI-B7390-2021

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

Michigan Department of Environment, Great Lakes, and Energy

Shane Nixon, Cadillac/Gaylord District Supervisor

**TABLE OF CONTENTS**

**AUTHORITY AND ENFORCEABILITY ..... 3**

**A. GENERAL CONDITIONS..... 4**

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. SOURCE-WIDE CONDITIONS ..... 11**

**C. EMISSION UNIT SPECIAL CONDITIONS ..... 14**

EMISSION UNIT SUMMARY TABLE ..... 14

EUCTGDS001 ..... 16

EUCTGEN001 ..... 18

**D. FLEXIBLE GROUP SPECIAL CONDITIONS..... 20**

FLEXIBLE GROUP SUMMARY TABLE ..... 21

FGCTREC ..... 22

FGCTDDDDDD<10 ..... 25

FGCTDDDDDD ..... 28

FGCTHHH ..... 32

**E. NON-APPLICABLE REQUIREMENTS ..... 39**

**APPENDICES ..... 40**

Appendix 1. Acronyms and Abbreviations ..... 40

Appendix 2. Schedule of Compliance..... 41

Appendix 3. Monitoring Requirements ..... 41

Appendix 4. Recordkeeping ..... 41

Appendix 5. Testing Procedures ..... 41

Appendix 6. Permits to Install..... 41

Appendix 7. Emission Calculations ..... 41

Appendix 8. Reporting ..... 42

## 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.

## SOURCE-WIDE CONDITIONS

### DESCRIPTION

Natural Gas storage and transmission station

### 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))**
2. For venting of field gas for routine maintenance or relocation of gathering pipelines 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)(iii)(B))**
3. The permittee shall not emit to atmosphere natural gas containing more than 1 grain of hydrogen sulfide or more than 10 grains of total sulfur per 100 standard cubic feet without destruction of hydrogen sulfide or mercaptans in a properly engineered flare, incinerator or other combustion system and meet the following requirements; **(R336.1403(1) & (2))**
  - a. For natural gases in which the volumes and concentrations for hydrogen sulfide daily totals less than 28 pounds/day the flare or other control device will be equipped with either an automatic ignition system, or a pilot flame which burns continuously when gas flows to the control device.
  - b. For natural gases in which the volumes and concentrations of hydrogen sulfide daily totals 28 pounds/day or greater the flare or other control device will be equipped with a continuously burning pilot flame and a mechanism which will shut off the flow of gasses should the pilot flame fail.

#### 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))**
2. 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))**
3. 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))**
4. For venting of field gas for routine maintenance or relocation of gathering pipelines 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)(iii)(A))**
5. For venting of field gas for routine maintenance or relocation of gathering pipelines in amounts greater than 1,000,000 standard cubic feet, the permittee shall provide necessary notification in accordance with the EGLE, Office of Geological Survey, and the Michigan Public Service Commission Standards, as applicable. The permittee is not required to copy the AQD on the notifications. **(R 336.1285(2)(mm)(iii)(B))**
6. For emergency venting of natural gas or field gases 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)

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).

### C. EMISSION UNIT SPECIAL CONDITIONS

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

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

#### EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCTGDS001	<p>Glycol dehydration system consisting in part of a 2-phase and a 3-phase separator, and a glycol regenerator.</p> <p>The glycol dehydration system has two exhaust vents to the atmosphere consisting of one glycol regenerator still column venting through the condenser, and one glycol regenerator reboiler burner vent.</p> <p>The referenced system is identified as an existing, small glycol dehydration unit which is defined as having an actual average annual gas flow rate of less than 283,000 standard cubic meters per day or actual annual average benzene of less than 0.90 Mg/year, determined per 40 CFR 63.1282(a).</p> <p>Control: Condenser</p>	01-01-1981	FGCTDDDD<10 (Reboiler only), FGCTHHH
EUCTCOMPENG001	<p>Cooper Bessemer model 12Q145H2; 4000 HP natural gas fired reciprocating compressor engine. Two-cycle, lean burn. Used to inject or withdraw natural gas from a natural gas storage field.</p> <p>Control: none</p>	01-01-1981 Modified 03-09-2001	FGCTREC
EUCTCOMPENG002	<p>Cooper Bessemer model 12Q145H2; 4000 HP natural gas fired reciprocating compressor engine. Two-cycle, lean burn. Used to inject or withdraw natural gas from a natural gas storage field.</p> <p>Control: none</p>	01-01-1981 Modified 03-09-2001	FGCTREC

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCTGEN001	<p>One Waukesha model F3531GSIU, 694 horsepower, 4.21 MMBTU/hr, 4-stroke, rich burn natural gas-fired engine used to power an emergency electricity generator.</p> <p>The emergency generator engine is subject to 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 (RICE).</p> <p>Control: none</p>	01-01-1981	NA
EUCTHTR001A	<p>Sivalls natural gas-fired withdrawal gas heater each with a maximum heat capacity of 10.0 MMBTU/hr,</p> <p>Control: none</p>	01-01-1981	FGCTDDDDDD
EUCTHTR001B	<p>Sivalls natural gas-fired withdrawal gas heater each with a maximum heat capacity of 10.0 MMBTU/hr,</p> <p>Control: none</p>	01-01-1981	FGCTDDDDDD
EUCTHTR001C	<p>Sivalls natural gas-fired withdrawal gas heater each with a maximum heat capacity of 10.0 MMBTU/hr,</p> <p>Control: none</p>	01-01-1981	FGCTDDDDDD
EUCTHTR001D	<p>Sivalls natural gas-fired withdrawal gas heater each with a maximum heat capacity of 10.0 MMBTU/hr,</p> <p>Control: none</p>	01-01-1981	FGCTDDDDDD
EUCTBOILER001	<p>Kewanee natural gas-fired boiler with a maximum heat capacity of 3.72 MMBTU/hr.</p> <p>Control: none</p>	01-01-1981	FGCTDDDDDD<10

**EUCTGDS001  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Glycol dehydration system consisting in part of a 2-phase and a 3-phase separator, and a glycol regenerator.

The glycol dehydration system has two exhaust vents to the atmosphere consisting of one glycol regenerator still column venting through the condenser, and one glycol regenerator reboiler burner vent.

The referenced system is identified as an existing, small glycol dehydration unit which is defined as having an actual average annual gas flow rate of less than 283,000 standard cubic meters per day or actual annual average benzene of less than 0.90 Mg/year, determined per 40 CFR 63.1282(a).

**Flexible Group ID:** FGCTHHH

**POLLUTION CONTROL EQUIPMENT**

Condenser

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	33 pounds per day <sup>2</sup>	Daily	EUCTGDS001	SC V.1 SC VI.4	R 336.1702(a) R 336.1205(3) R 336.1901(a)
2. VOC	6 tpy <sup>2</sup>	12-month rolling time period	EUCTGDS001	SC V.1 SC VI.5	R 336.1702(a) R 336.1205(3) R 336.1901(a)
3. Benzene	Less than 0.992 tpy <sup>2</sup>	12-month rolling time period	EUCTGDS001	SC V.1 SC VI.5	R 336.1702(a) R 336.1205(3) R 336.1901(a)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural Gas Processed	225 million cubic feet per day <sup>2</sup>	Daily	EUCTGDS001	SC VI.3	R 336.1205(3)

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

- EUCTGDS001 shall not be operated unless the glycol regenerator still is equipped with a condenser and the condenser, including any associated monitoring equipment, is installed and operating properly.<sup>2</sup>  
(R 336.1205(3), R 336.1702(a), R 336.1901(a), R 336.1910,)
- EUCTGDS001 shall not be operated unless the condenser exhaust gas temperature is 140° F or less.<sup>2</sup>  
(R 336.1205(3), R 336.1702(a), R 336.1910, R 336.1901(a))

3. The natural gas used as fuel in EUCTGDS001 shall not contain more than 20 grains of total sulfur per 100 cubic feet shall be the only fuel supplied to and fired in the glycol dehydrator<sup>2</sup> **(R 336.1205(3), R 336.1702(a), R 336.1901(a))**
4. The glycol circulation rate shall not exceed 6.0 gpm. <sup>2</sup> **(R 336.1702(a), R 336.1901(a), R 336.1205(3))**
5. The permittee shall not use stripping gas in the glycol regenerator still.<sup>2</sup> **(R 336.1205(3), R 336.1702(a), R 336.1901(a))**

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

1. The condenser shall be equipped and maintained with an exhaust gas temperature monitor.<sup>2</sup> **(R 336.1205(3), R 336.1702(a), R 336.1901(a))**
2. The condenser shall be equipped and maintained with an alarm which will be activated when exhaust gas temperature exceeds 140° F. **(R 336.1213(3))**
3. Each glycol circulation pump shall have a fixed rate of circulation of 3 gallons per minute.<sup>2</sup> **(R 336.1205(3), R 336.1702(a), R 336.1901(a))**

**V. TESTING/SAMPLING**

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

1. At least once every five years the permittee shall obtain, by sampling, an analysis of the wet gas stream. The sample shall be analyzed for nitrogen, carbon dioxide, hydrogen sulfide, C1 through C6 series hydrocarbons, benzene, toluene, xylene, ethylbenzene, and heptane plus. Any request for a change in the sampling frequency must be submitted in writing to the AQD District Supervisor for review and written approval.<sup>2</sup> **(R 336.1205(3), R 336.1702(a), R 336.1901(a))**
2. The permittee may verify VOC and benzene emission rates from EUCTGDS001 by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

<b>Pollutant</b>	<b>Test Method Reference</b>
VOC	40 CFR Part 60, Appendix A
Benzene	40 CFR Part 60, Appendix A

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

3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), R 336.2001(4))**

**VI. MONITORING/RECORDKEEPING**

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

1. While continuously monitoring the condenser exhaust gas temperature, the permittee shall monitor the alarm events (alarm actuated because exhaust temperature exceeds 140° F) from the condenser. The day and time of the alarm event shall be recorded in a log in addition to the corrective action taken that resulted from the alarm event. If the condenser alarm system is not operating properly, then the permittee shall monitor and record the exhaust gas temperature from the control device once per day for all days the EUCTGDS001 glycol dehydration unit is operating.<sup>2</sup> **(R 336.1205(3), R 336.1702(a), R 336.1901(a), R 336.1213(3))**
2. The permittee shall record hours of operation of the EUCTGDS001 for each calendar month and each 12 month rolling time period.<sup>2</sup> **(R 336.1205(3), R 336.1702(a), R 336.1901(a))**

3. The permittee shall record the amount of natural gas processed through EUCTGDS001 for each calendar day.<sup>2</sup> **(R 336.1205(3), R 336.1702(a), R 336.1901(a))**
4. The permittee shall calculate and record the VOC emissions from EUCTGDS001 for each calendar day. The calculated VOC emissions for each day of the calendar month shall be available to the AQD upon request no later than the 15<sup>th</sup> of the next calendar month.<sup>2</sup> **(R 336.1205(3), R 336.1213(3), R 336.1702(a), R 336.1901)**
5. The permittee shall calculate and record the annual VOC and benzene emissions from EUCTGDS001, based on a 12-month rolling time period, once per calendar month. The annual emissions, based on a 12-month rolling time period, calculated in each calendar month shall be available to the AQD upon request no later than the 15<sup>th</sup> of the next calendar month.<sup>2</sup> **(R 336.1205(3), R 336.1702(a), R 336.1901(a))**
6. The permittee may calculate the non-methane VOC and benzene emissions from EUCTGDS001 by using the GRI-GLYCalc™ computer model, version 3.0 or later (or by an alternative method as approved in writing by the AQD district supervisor). Inputs to the model shall be representative of actual operating conditions of the glycol regenerator. The composition of the natural gas which is input into the model shall be as determined in the most recent analysis of the natural gas processed in EUCTGDS001.<sup>2</sup> **(R 336.1205(3), R 336.1702(a), R 336.1901(a))**

See Appendices 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))**

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

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCT010 (regenerator still column venting through the condenser)	2 <sup>1</sup>	25 <sup>1</sup>	<b>R 3361901(a)</b>
2. SVCT012	NA	22 <sup>1</sup>	<b>R 336.1901(a)</b>

**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).

<b>EUCTGEN001 EMISSION UNIT CONDITIONS</b>
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**DESCRIPTION**

One Waukesha model F3531GSIU, 694 horsepower, 4.21 MMBTU/hr, 4-stroke, rich burn natural gas-fired engine used to power an emergency electricity generator.

The emergency generator engine is subject to 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 (RICE).

Flexible Group ID: NA

## **POLLUTION CONTROL EQUIPMENT**

NA

### **I. EMISSION LIMIT(S)**

NA

### **II. MATERIAL LIMIT(S)**

NA

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

1. The permittee shall operate and maintain EUCTGEN001 and after-treatment control device (if any) in a manner consistent with good air pollution control practices for minimizing emissions. **(40 CFR 63.6605)**
2. For EUCTGEN001, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. **(40 CFR 63.6625(h))**
3. The permittee may operate EUCTGEN001 for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. **(40 CFR 63.6640(f)(2))**
4. EUCTGEN001 may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in SC III.3. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for the permittee to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 63.6640(f)(3))**

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

1. The permittee shall equip and maintain EUCTGEN001 with non-resettable hours meters to track the operating hours. **(R 336.1213(3))**

### **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 EUCTGEN001, the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(e))**
2. The permittee shall monitor and record, the total hours of operation for EUCTGEN001 on a monthly basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3))**
3. The permittee's records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). **(40 CFR 63.6660(a))**
4. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.6660(b))**

## **VII. REPORTING**

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

See Appendix 8

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

NA

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

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

### **Footnotes:**

<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 SPECIAL CONDITIONS**

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

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

**FLEXIBLE GROUP SUMMARY TABLE**

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGCTREC	<p>Two Cooper Bessemer model 12Q145H2; 4000 HP, 32.74 MMBTU/hr heat input, 2-stroke, lean burn natural gas fired reciprocating compressor engines used to power compressors used to inject or withdraw natural gas from a natural gas storage field.</p> <p>The emission units do not have control devices.</p>	<p>EUCTCOMPENG001 EUCTCOMPENG002</p>
FGCTDDDDD<10	<p>Requirements for existing boiler(s) and process heater(s) with a heat input capacity of &lt;10 MMBTU/hr for major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). These boilers or process heaters are designed to burn solid, liquid, or gaseous fuels and include a 750,000 BTU/hr glycol dehydrator reboiler and a Kewanee boiler with a maximum heat capacity of 3.72 MMBTU/hr.</p> <p>The emission units do not have control devices.</p>	<p>EUCTBOILER001 EUCTGDS001 (reboiler only)</p>
FGCTDDDDD	<p>Gas1: Fuel Subcategory requirements for existing Boilers/Process Heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD National Emission Standard for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.</p> <p>This group consists of four Sivalls natural gas-fired withdrawal gas heaters each with a maximum heat capacity of 10.0 MMBTU/hr.</p> <p>The emission units do not have control devices.</p>	<p>EUCTHTR001A EUCTHTR001B EUCTHTR001C EUCTHTR001D</p>
FGCTHHH	<p>One glycol dehydration system (EUCTGDS001) operates in two modes (glycol injection and glycol absorption) to remove water from the natural gas withdrawn from the storage reservoir. The glycol dehydration system meets the definition in 40 CFR 63.1271, was constructed prior to August 23, 2011.</p> <p>The referenced system is identified as an existing, small glycol dehydration unit which is defined as having an actual average annual gas flow rate of less than 283,000 standard cubic meters per day or actual annual average benzene of less than 0.90 Mg/year, determined per 40 CFR 63.1282(a).</p> <p>Control: Condenser</p>	<p>EUCTGDS001</p>

**FGCTREC  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Two Cooper Bessemer model 12Q145H2; 4000 HP, 32.74 MMBTU/hr heat input, 2-stroke, lean burn natural gas fired reciprocating compressor engines used to power compressors used to inject or withdraw natural gas from a natural gas storage field.

The Facility has indicated that the two EUs are existing lean burn, 2-stroke compressor engines and are exempt from Subpart ZZZZ requirements under 40 CFR 63.6590 (b)(3)(i).

**Emission Unit:** EUCTCOMPENG001, EUCTCOMPENG002

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	53 pounds per hour <sup>2,a</sup>	Hourly	EUCTCOMPENG001 EUCTCOMPENG002	SC V.1 SC VI.3	<b>40 CFR 52.21(j)</b>
2. NOx	6 Grams per horsepower-hour at 100% speed and 100% torque <sup>2,a,b</sup>	Hourly	EUCTCOMPENG001 EUCTCOMPENG002	SCV.1	<b>40 CFR 52.21(j)</b>

<sup>a</sup> Except during startup and shutdown

<sup>b</sup> In accordance with Rule 213(2) and Rule 213(6), compliance with this streamlined nitrogen oxides emissions limit shall be considered compliance with the nitrogen oxides emissions limit established by **40 CFR 52.21(j)**, and also compliance with the nitrogen oxides emissions limit in **R 336.1801(4)(d)**, an additional applicable requirement that has been subsumed within this condition.

**II. MATERIAL LIMIT(S)**

NA

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

1. The permittee shall use only natural gas containing no more than 20 grains of total sulfur per 100 cubic feet as fuel for the compressor engines.<sup>2</sup> (**R 336.1301(1)(a)**)
2. The permittee shall operate and maintain each engine in FGCTREC according to the manufacturer's emission-related written instructions. (**R 336.1213(2)**)

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

NA

**V. TESTING/SAMPLING**

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

1. The permittee shall verify Nitrogen Oxides emission rates from EUCTCOMPENG001 and EUCTCOMPENG002 by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 60, and Appendix A, Methods 2, 3A, and 7E. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
2. The permittee shall verify the Nitrogen Oxides emission rates from EUCTCOMPENG001 and EUCTCOMPENG002 at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), R 336.2001(4))**

## **VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall record the fuel consumption for each engine for each calendar month. **(R 336.1213(3))**
2. The permittee shall record the engine hours of operation for each engine for each calendar month. **(R 336.1213(3)(b))**
3. Once per calendar month the permittee shall calculate the nitrogen oxides emissions in pounds per hour from each compressor engine using engine specific emission factors derived from the most recent stack test for each engine. The permittee shall use the equation in Appendix 7. **(R 336.1213(3))**
4. The permittee shall keep in a satisfactory manner the manufacturer's emission-related written instructions and records demonstrating that the engine has been maintained according to those instructions as specified in SC III.2. **(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 RESTRICTION(S)**

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).

**FGCTDDDDDD<10  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Requirements for existing boiler(s) and process heater(s) with a heat input capacity of <10 MMBTU/hr for major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). These boilers or process heaters are designed to burn solid, liquid, or gaseous fuels and include a 750,000 BTU glycol dehydrator reboiler and a Kewanee boiler with a maximum heat capacity of 3.72 MMBTU/hr.

**Emission Unit:** EUCTBOILER001, EUCTGDS001 (reboiler only)

Equal to or less than 5 MMBTU/hr and only burns gaseous or light liquid fuels	EUCTGDS001(reboiler only) EUCTBOILER001
Greater than 5 MMBTU/hr and less than 10 MMBTU/hr that burns gaseous or light liquid fuels or any unit that is less than 10 MMBTU/hr and burns any heavy liquid or solid fuels	NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

NA

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

1. The permittee must, for boilers or process heaters with a heat input capacity of less than or equal to 5 MMBTU/hr, conduct a 5-year tune-up according to 40 CFR 63.7540(a)(12). Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. The burner inspection may be delayed until the next scheduled or unscheduled unit shutdown, but each burner must be inspected at least once every 72 months. **(40 CFR 63.7500(d) or (e), 40 CFR 63.7515(d), 40 CFR 63.7540(a)(12), 40 CFR Part 63, Subpart DDDDD, Table 3.1)**
2. The permittee must conduct a tune-up of each boiler or process heater as specified in the following: **(40 CFR 63.7540(a)(11) or (12))**
  - a. As applicable, inspect the burner and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune-up or may delay the burner inspection until the next scheduled 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. **(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))**
3. If the unit is not operated on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. **(40 CFR 63.7540(a)(13))**
  4. At all times, the permittee must operate and maintain each existing small boiler or process heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

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

NA

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

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

NA

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

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

1. The permittee must keep a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or 5 year compliance report or one-time energy assessment, as applicable, that the permittee submitted. **(40 CFR 63.7555(a)(1))**
2. The permittee must keep the records in a form suitable and readily available for expeditious review. **(40 CFR 63.7560(a))**
3. The permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**
4. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3 years. **(40 CFR 63.7560(c))**

#### **VII. REPORTING**

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

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee must submit boiler or process heater tune-up compliance reports to the appropriate AQD District Office and must be postmarked or submitted by March 15<sup>th</sup> of the year following the applicable 5-year period starting from January 1 of the year following the previous tune-up to December 31 (of the latest tune-up year). Compliance reports must also be submitted to EPA using the Compliance and Emissions Data Reporting Interface (CEDRI) which is accessed through the EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). If the reporting form is not available in CEDRI at the time the compliance report is due, a hardcopy of the compliance report shall be submitted to EPA Region 5. **(40 CFR 63.7550(b), 40 CFR 63.7550(h)(3))**
5. The permittee must include the following information in the compliance report. **(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 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))**

See Appendix 8

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

NA

**IX. OTHER REQUIREMENT(S)**

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

**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).

**FGCTDDDDD**  
**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Requirements for existing boiler(s) and process heater(s) that are designed to burn gas 1 subcategory fuel with a heat input capacity of 10 MMBTU/hr or greater at major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). Units designed to burn gas 1 subcategory fuels include boilers or process heaters that burn only natural gas, refinery gas, and/or Other Gas 1 fuels. Units that burn liquid fuel for testing or maintenance purposes for less than a total of 48 hours per year, or that burn liquid fuel during periods of curtailment or supply interruptions are included in this definition. This group consists of four Sivalls natural gas-fired withdrawal gas heaters each with a maximum heat capacity of 10.0 MTUtu/hr,

The emission units do not have control devices.

**Emission Unit:** EUCTHTR001A, EUCTHTR001B, EUCTHTR001C, EUCTHTR001D, EUCTBOILER001, EUCTGDS001 (reboiler only)

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

NA

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

1. The permittee shall conduct an annual tune up of each boiler or process heater as specified below. The annual tune-up shall be no more than 13 months after the previous tune-up. **(40 CFR 63.7500(a)(1), 40 CFR 63.7515(d), Table 3 of 40 CFR Part 63, Subpart DDDDD)**
  - a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown. Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**
  - b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
  - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**
  - d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<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))**
2. If the unit is not operated on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. **(40 CFR 63.7540(a)(13))**
3. At all times, the permittee must operate and maintain each existing gas 1 boiler or process heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

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

NA

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

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

NA

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

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

1. The permittee must keep a copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted. **(40 CFR 63.7555(a)(1))**
2. If the permittee uses an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under 40 CFR Part 63, Other Gas 1 fuel, or gaseous fuel subject to another subpart of 40 CFR Part 60 or Part 61, or Part 65, the permittee must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies. **(40 CFR 63.7555(h))**
3. The permittee shall maintain on-site and submit, if requested by the AQD, an annual tune-up report containing the information listed below.
  - a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
  - b. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**
  - c. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**
4. The permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). **(40 CFR 63.7560(a))**
5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**
6. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2-years after the date of each occurrence, measurement, maintenance,

corrective action, report, or record. The permittee can keep the records off site for the remaining 3-years. **(40 CFR 63.7560(c))**

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. If the permittee intends to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of 40 CFR Part 63, Part 60, Part 61, or Part 65, or Other Gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575, the permittee must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575. The notification must include the information as listed below.
  - a. Company name and address. **(40 CFR 63.7545(f)(1))**
  - b. Identification of the affected unit. **(40 CFR 63.7545(f)(2))**
  - c. Reason the permittee is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared, or the natural gas supply interruption began. **(40 CFR 63.7545(f)(3))**
  - d. Type of alternative fuel that the permittee intends to use. **(40 CFR 63.7545(f)(4))**
  - e. Dates when the alternative fuel use is expected to begin and end. **(40 CFR 63.7545(f)(5))**
5. If the permittee has switched fuels or made a physical change to the boiler or process heater and the fuel switch or physical change resulted in the applicability of a different subcategory, the permittee must provide notice of the date upon which the permittee switched fuels or made the physical change within 30 days of the switch/change. The notification must identify.
  - a. The name of the owner or operator of the affected source, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice. **(40 CFR 63.7545(h)(1))**
  - b. The currently applicable subcategory under 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7545(h)(2))**
  - c. The date upon which the fuel switch or physical change occurred. **(40 CFR 63.7545(h)(3))**
6. The permittee must submit boiler and process heater tune-up compliance reports to the appropriate AQD District Office. The reports must be postmarked or submitted by March 15<sup>th</sup> and must cover the period of January 1 through December 31 of the reporting year. For new units, the first report should cover the period of startup to December 31 of the reporting year. Compliance reports must also be submitted to EPA using the Compliance and Emissions Data Reporting Interface (CEDRI) which is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). **(40 CFR 63.7550(b))**
7. The permittee must submit a compliance report containing the following information.
  - a. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
  - b. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
  - c. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**

- d. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**
  - e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii))**
8. The permittee must submit all reports required by Table 9 of this subpart electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, submit the report to the EPA Region V at the appropriate address listed in 40 CFR 63.13 and to the appropriate AQD District Office. **(40 CFR 63.7550(h)(3))**

See Appendix 8

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

NA

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

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

#### **Footnotes:**

<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).

**FGCTHHH  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

One glycol dehydration system (EUCTGDS001) operates in two modes (glycol injection and glycol absorption) to remove water from the natural gas withdrawn from the storage reservoir. The glycol dehydration system meets the definition in 40 CFR 63.1271, was constructed prior to August 23, 2011.

The referenced system is identified as an existing, small glycol dehydration unit which is defined as having an actual average annual gas flow rate of less than 283,000 standard cubic meters per day or actual annual average benzene of less than 0.90 Mg/year, determined per 40 CFR 63.1282(a).

**Flexible Group ID:** EUCTGDS001

**POLLUTION CONTROL EQUIPMENT**

Condenser

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. BTEX	Calculated using the equation in Appendix 7	12-month rolling time period	EUTGDS001	SC V.2 SC VI.1	<b>40 CFR 63.1275(b)(1)(iii)</b>

**II. MATERIAL LIMIT(S)**

NA

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

1. EUCTGDS001 shall not be operated unless the glycol regenerator still is equipped with a condenser and the condenser, including any associated monitoring equipment, is installed and operating properly. **(40 CFR 63.1281(c))**
2. The control device(s) for EUCTGDS001 shall be designed and operated to meet BTEX emission limits of SC I.1. **(40 CFR 63.1275(b)(1)(iii)(A), 63.1281(f)(1)(ii))**
3. The closed vent system shall be designed and operated such that the closed-vent system shall route all gases, vapors, and fumes emitted from the material in and emission unit to the condenser. **(40 CFR 63.1275(b)(1)(iii)(A), 40 CFR 63.1281(c)(1), 40 CFR 63.1283(c)(2)(iii))**
4. EUCTGDS001 shall be designed and operated with no detectable emissions **(40 CFR 62.1281(c)(2))**
5. The permittee shall install and operate a monitoring instrument that directly measures natural gas flow rate to EUCTGDS001 with an accuracy of ± 2 percent or better. The annual natural gas flow rate shall be converted to a daily average by dividing the annual flow rate by the number of days per year EUCTGDS001 processed natural gas. **(40 CFR 63.1282(a)(1))**

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

1. Each continuous parameter monitoring system (CPMS) shall meet the following specifications and requirements: **(40 CFR 63.1283(d)(1))**
  - a. Each CPMS shall measure data values at least once every hour and record either:
    - i Each measured data value; or
    - ii Each block average value for each 1-hour period or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values.
2. The permittee shall install a device equipped with a continuous recorder to measure the values of operating parameters appropriate for the control device as specified below. **(40 CFR 63.1283(d)(3))**
  - a. For a condenser, the temperature monitoring device shall have a minimum accuracy of  $\pm 2$  percent of the temperature being monitored in  $^{\circ}\text{C}$ , or  $\pm 2.5^{\circ}\text{C}$ , whichever value is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser.

## **V. TESTING/SAMPLING**

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

1. The permittee shall test the regenerator still condenser for condenser efficiency, no later than once every 60 months using one of the following methods: **(40 CFR 63.1282(d))**
  - a. A performance test conducted to demonstrate that the condenser meets the requirements of 40 CFR 63.1281(f)(1).
  - b. Generate a condenser performance curve using procedures documented in the Gas Research Institute report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" as inputs for the model GRI-GLYCalc™ Version 3.0 or higher.
2. The permittee may verify BTEX emission rates from EUCTGDS001 by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved USEPA Method listed in Appendix A of 40 CFR Part 60; ASTM D64200-99 (Reapproved 2004); or any other method or data that has been validated according to the applicable procedures in Method 301, 40 CFR Part 63, Appendix A. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, 40 CFR 63.1282(d)(3), 40 CFR 63.1285(b)(3))**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), R 336.2001(4))**
4. The Permittee shall perform annual "no detectable emissions" testing for closed vent systems using the test methods and procedures specified in 40 CFR 63.1282(b) and Method 21 (Determination of VOC Leaks). **(40 CFR 63.1282(b), 40 CFR 63.1283(c)(2)(i))**

**See Appendix 5**

## **VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall calculate and record the BTEX emissions from EUCTGDS001, for each calendar month and 12-month rolling time period. Determination of the actual average BTEX emissions shall be made using GRI-GLYCalc™, Version 3.0 or higher. Inputs to the model shall be representative of actual operating conditions of each glycol dehydration unit. using procedures documented in the Gas Research Institute report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1). The emissions shall be available to the AQD upon request no later than the 15<sup>th</sup> of the next calendar month. **(40 CFR 63.1282(a)(2)(i))**

2. The permittee shall record the actual annual average natural gas flowrate to EUCTGDS001. **(40 CFR 63.1282(a)(1)(ii))**
3. The permittee shall continuously monitor and record the exhaust gas temperature for the condenser and calculate the daily average temperature for each operating day. **(40 CFR 63.1282(e), 40 CFR 63.1283(d)(4))**
  - a. Establish a site-specific maximum condenser temperature to define the conditions at which the condenser must be operated to continuously achieve compliance with the emission limit.
  - b. Calculate the daily average of the temperature readings in accordance with SC VI.4.
  - c. Compliance is achieved when the daily average of the temperature readings calculated under SC VI.4.b. is less than the maximum monitoring value established under SC VI 3.a.
4. When using a condenser as the control device the permittee may demonstrate compliance with BTEX emission limits by complying with the following requirements: **(40 CFR 63.1282(f))**
  - a. The permittee shall establish a site-specific condenser performance curve according to the procedures specified in SC VI.10
  - b. The permittee shall calculate the daily average condenser outlet temperature in accordance with SC VI.8
  - c. The permittee shall determine the condenser efficiency for the current operating day using the daily average condenser outlet temperature and the condenser performance curve.
  - d. At the end of each operating day the permittee shall calculate the 30-day average BTEX emission reduction from the condenser efficiencies for the preceding 30 operating days.
5. For each closed-vent system, the permittee shall comply with the following requirements: **(40 CFR 63.1283(c)(2-4))**
  - a. Except for parts of the closed-vent system or cover that are designated unsafe to inspect or difficult to inspect, each closed-vent system and each bypass device shall be inspected according to the procedures specified below according the following schedule:
    - i. For each closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted or gasketed ducting flange):
      - A. Conduct an initial inspection to demonstrate that the closed-vent system operates with no detectable emissions.
      - B. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; or broken or missing caps or other closure devices.
    - ii. For closed-vent system components other than those specified in SC VI.5.a.i above:
      - A. Conduct an initial inspection to demonstrate that the closed-vent system operates with no detectable emissions.
      - B. Conduct annual inspections to demonstrate that the components or connections operate with no detectable emissions.
      - C. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork; loose connections; or broken or missing caps or other closure devices.
    - iii. For each bypass device, except low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices, the permittee shall either:
      - A. At the inlet to the bypass device that could divert the steam away from the control device to the atmosphere, set the flow indicator to take a reading at least once every 15 minutes; or
      - B. If the bypass device valve installed at the inlet to the bypass device is secured in the non-diverting position using a car-seal or a lock-and-key type configuration, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass device.
  - b. In the event that a leak or defect is detected, the permittee shall repair the leak or defect as soon as practicable, except as provided in SC VI.5.c.
    - i. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

- ii Repair shall be completed no later than 15 calendar days after the leak is detected.
  - c. Delay of repair of a closed-vent system for which leaks, or defects have been detected is allowed if the repair is technically infeasible without a shutdown, as defined in § 63.1271, or if the permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next shutdown.
6. Any parts of the closed-vent system or cover that are designated, as described below, as unsafe to inspect are exempt from the inspection requirements of SC VI.5 if: **(40 CFR 63.1283(c)(5))**
    - a. The permittee determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with SC VI.5.a.i or ii.
    - b. The permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.
  7. Any parts of the closed-vent system or cover that are designated, as described below, as difficult to inspect are exempt from the inspection requirements of SC VI.5.a if: **(40 CFR 63.1283(c)(6))**
    - a. The permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and
    - b. The permittee has a written plan that requires inspection of the equipment at least once every 5 years.
  8. Using the condenser exhaust temperature data recorded by the monitoring system, the permittee must calculate the daily average value for the monitored operating parameter for each operating day. If the emissions unit operation is continuous, the operating day is a 24-hour period. If the emissions unit operation is not continuous, the operating day is the total number of hours of control device operation per 24-hour period. Valid data points must be available for 75 percent of the operating hours in an operating day to compute the daily average. **(40 CFR 63.1283(d)(4))**
  9. The permittee shall establish a maximum operating parameter value, as appropriate for the control device, to define the conditions at which the condenser must be operated to continuously achieve the emission limits in Section I of EUCTGDS001. The maximum operating parameter value shall be established as follows: **(40 CFR 63.1283(d)(5)(i))**
    - a. If the permittee conducts performance tests to demonstrate that the condenser achieves the applicable performance requirements, then the maximum operating temperature shall be established based on values measured during the performance test and supplemented, as necessary, by a condenser design analysis or control device manufacturer's recommendations or a combination of both.
    - b. If the permittee uses a condenser design analysis to demonstrate that the control device achieves the applicable performance requirements, then the maximum operating temperature shall be established based on the condenser design analysis and may be supplemented by the condenser manufacturer's recommendations.
    - c. If the permittee operates a condenser where the performance test requirement was met under manufacturers' performance test to demonstrate that the condenser achieves the applicable performance requirements, then the maximum inlet gas flow rate shall be established based on the performance test and supplemented, as necessary, by the manufacturer recommendations.
  10. When using condensers as the control device the permittee shall establish a condenser performance curve showing the relationship between condenser outlet temperature and condenser control efficiency. The curve shall be established using the procedures documented in the GRI report entitled, "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1) as inputs for the model GRI-GLYCalc™, Version 3.0 or higher, to generate a condenser performance curve. **(40 CFR 63.1283(d)(5)(ii))**
  11. A deviation for a condenser is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified below being met. **(40 CFR 63.1283(d)(6)(i-iii))**
    - a. When the daily average value of a monitored operating parameter is greater than the maximum operating parameter limit established for the operating parameter.
    - b. When the 30-day average condenser efficiency calculated according to the requirements of Condition VI.4.d is less than the identified 30-day required percent reduction.

- c. When the monitoring data are not available for at least 75 percent of the operating hours in a day.
12. The permittee shall maintain the records specified in 40 CFR 63.10(b)(2) which include but are not limited to: **(40 CFR 63.1284(b)(2))**
    - a. The occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards;
    - b. The occurrence and duration of each malfunction of operation (i.e., process equipment) or the required air pollution control and monitoring equipment;
    - c. All required maintenance performed on the air pollution control and monitoring equipment;
  13. The permittee shall maintain the following records: **(40 CFR 63.1284(b)(4))**
    - a. Continuous records of the equipment operating parameters specified to be monitored in SC VI.8-10.
    - b. Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in SC VI.8.
    - c. For condensers using reduction efficiency for compliance, records of the annual 30-day rolling average condenser efficiency determined in SC VI 4.d shall be kept in addition to the daily averages.
  14. The permittee shall maintain records identifying all parts of the closed-vent system that are designated as unsafe to inspect in accordance with SC VI.6, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment. **(40 CFR 63.1284(b)(5))**
  15. The permittee shall maintain records identifying all parts of the closed-vent system that are designated as difficult to inspect in accordance with SC VI.7, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment. **(40 CFR 63.1284(b)(6))**
  16. The permittee shall maintain the following records for each inspection conducted in accordance with SC VI.5 during which a leak or defect is detected. **(40 CFR 63.1284(b)(7))**
    - a. The instrument identification numbers, operator name or initials, and identification of the equipment.
    - b. The date the leak or defect was detected and the date of the first attempt to repair the leak or defect.
    - c. Maximum instrument reading measured by the method specified in SC V.4 after the leak or defect is successfully repaired or determined to be non-repairable.
    - d. "Repair delayed" and the reason for the delay if a leak or defect is not repaired within 15 calendar days after discovery of the leak or defect.
    - e. The name, initials, or other form of identification of the permittee (or designee) whose decision it was that repair could not be affected without a shutdown.
    - f. The expected date of successful repair of the leak or defect if a leak or defect is not repaired within 15 calendar days.
    - g. Dates of shutdowns that occur while the equipment is unrepaired.
    - h. The date of successful repair of the leak or defect.
  17. For each inspection conducted in accordance with SC V.4 during which no leaks or defects are detected, the permittee shall maintain a record that the inspection was performed, the date of the inspection, and a statement that no leaks or defects were detected. **(40 CFR 63.1284(b)(8))**
  18. The permittee shall maintain records of the occurrence and duration of each malfunction of process equipment or the air pollution control equipment and monitoring equipment. The permittee shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with SC III.1 including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. **(40 CFR 63.1284(f))**

## **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 prepare Periodic Reports in accordance with a. and b. below and submit them to the AQD. **(40 CFR 63.1285(d)(6))**
  - a. The permittee shall submit Periodic Reports as defined in General Conditions 21 and 22 of Part A of this ROP, semiannually and annually per SC VII.2 & 3, as well as following completion of any relevant compliance demonstration activities specified in the National Emissions Standards for Hazardous Air Pollutants, Subpart HHH. The report shall include certification by a responsible official of truth, accuracy and completeness.
  - b. The permittee shall include the following information and any other information as applicable in 40 CFR 63.1285(e)(2).
    - i. A description of all deviations as defined in SC VI.11 & 12 that have occurred during the 6-month reporting period, and the information described in 40 CFR 63.1285(e)(2)(ii).
    - ii. For each inspection conducted in accordance with SC VI.5 during which a leak or defect is detected, the records described in SC VI.17 must be included in the next Periodic Report.
    - iii. For each closed-vent system with a bypass line, records required under SC VI.16.e and f.
    - iv. A statement identifying if there were no deviations during the reporting period.
    - v. Any change in compliance methods as described in 40 CFR 63.1282(e).
    - vi. The results of any periodic test conducted during the reporting period.
5. Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the permittee shall submit a report within 180 days after the process change is made or as a part of the next Periodic Report, whichever is sooner. The report shall include: **(40 CFR 63.1285(f))**
  - a. A brief description of the process change.
  - b. A description of any modification to standard procedures or quality assurance procedures.
  - c. Revisions to any of the information reported in the original Notification of Compliance Status Report under SC VII.4.
  - d. Information required by the Notification of Compliance Status Report under SC VII.4 for changes involving the addition of processes or equipment.
6. Within 60 days after the date of completing a performance test (defined in 40 CFR 63.2) the permittee shall submit the results of the performance tests to USEPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through USEPA's Central Data Exchange (CDX) (<http://www.epa.gov/cdx>). Performance test data must be submitted in the file format generated through use of USEPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. All reports required by this subpart not subject to the above electronic reporting requirements must be sent to the Administrator at the appropriate address. The Administrator may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports in paper format. **(40 CFR 63.1285(g))**

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

NA

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63, Subparts A and HHH, as they apply to EUCTGDS001. **(40 CFR Part 63, Subparts A and HHH)**
2. A site-specific monitoring plan must be prepared that addresses the monitoring system design, data collection, and the quality assurance and quality control elements. Each CPMS must be installed, calibrated, operated, and maintained in accordance with the procedures in your approved site-specific monitoring plan. The permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified below and in your site-specific monitoring plan. **(40 CFR 63.1283(d)(1)(ii-iv), 40 CFR 63.1282 (e)(1))**
  - a. The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations.
  - b. Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements.
  - c. Equipment performance checks, system accuracy audits, or another audit procedures.
  - d. Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR 63.8(c)(1) and (c)(3).
  - e. Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR 63.10(c), (e)(1), and (e)(2)(i).
  - f. The permittee must conduct the CPMS equipment performance checks, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least once every 12 months.
  - g. The permittee must conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.

**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-B7390-2012. 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-B7390-2012A is being reissued as Source-Wide PTI No. MI-PTI-B7390-2021.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	201200143	Administrative Amendment to correct typo in reference to 40 CFR 63.5540(f)(2)(iii).	EUCTGEN001

**Appendix 7. Emission Calculations**

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

**A. Glycol Dehydration System, Table EUCTGDS001**

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in Table EUCTGDS001.

**VOC emissions per day = (million standard cubic feet of natural gas processed through Unit per day) X (EF)**

where EF is an emission factor expressed as pounds of VOC emitted per million cubic feet of gas processed. The EF shall be periodically recalculated, using GRI GlyCalc™, based on the results of the periodic natural gas analysis as required by Table EUCTGDS001, Condition V.1. All other inputs to the GlyCalc™ model must be representative of actual operating conditions. The recalculated EF is subject to approval by the District Supervisor of the AQD.

**B. Two Reciprocating Compressor Engines, Table FGCTREC**

The permittee shall use the following calculations in conjunction with monitoring, testing, or recordkeeping data to determine compliance with the applicable requirements referenced in Table FGCTREC, Compressor Engines. Alternate calculations must be approved by the AQD District Supervisor.

**NOx emissions (pounds per hour) = (million standard cubic feet of natural gas used as fuel per month) X (EF)/(hours operated in that month)**

where EF is an emission factor expressed as pounds of NOx emitted per million cubic feet of natural gas used as fuel. EF shall be based on the most recent stack test for the engines at the Central Charlton facility, provided the AQD accepts that the stack test was performed correctly. The recalculated EF is subject to approval by the District Supervisor of the AQD.

**C. Glycol Dehydration System, FGCTHHH, 40 CFR Part 63, Subpart HHH**

The permittee shall use the following equation, or alternate equation approved by the AQD, in conjunction with monitoring, testing or recordkeeping data to determine compliance with the BTEX emission limit referenced in EUSTHHH, I.1, BTEX emissions (40 CFR 63.1275 equation 1).

$$EL_{BTEX} = 3.10 \times 10^{-4} * Throughput * C_{i,BTEX} * 365 \frac{days}{yr} * \frac{1 Mg}{1 \times 10^6 grams} \quad \text{Equation 1}$$

Where:

EL<sub>BTEX</sub> = Unit-specific BTEX emission limit, megagrams per year;

3.10 × 10<sup>-4</sup> = BTEX emission limit, grams BTEX/standard cubic meter-ppmv;

Throughput = Annual average daily natural gas throughput, standard cubic meters per day;

C<sub>i,BTEX</sub> = Annual average BTEX concentration of the natural gas at the inlet to the glycol dehydration unit, ppmv.

**Appendix 8. Reporting**

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

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

**B. Other Reporting**

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