

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

EFFECTIVE DATE: April 3, 2017

ISSUED TO:

**ANR Storage Company - Excelsior Compressor Station**

State Registration Number (SRN): B7196

LOCATED AT:

4963 State Road Northeast, Kalkaska, Kalkaska County, Michigan 49649

**RENEWABLE OPERATING PERMIT**

Permit Number: MI-ROP-B7196-2017

Expiration Date: April 3, 2022

Administratively Complete ROP Renewal Application Due Between:  
October 3, 2020 and October 3, 2021

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

**SOURCE-WIDE PERMIT TO INSTALL**

Permit Number: MI-PTI-B7196-2017

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

Michigan Department of Environmental Quality



Shane Nixon, Cadillac District Supervisor

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## **AUTHORITY AND ENFORCEABILITY**

For the purpose of this permit, the **permittee** is defined as any person who owns or operates an emission unit at a stationary source for which this permit has been issued. The **department** is defined in Rule 104(d) as the Director of the Michigan Department of Environmental Quality (MDEQ) 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 (SC) 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 are 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 states 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. **(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:
- Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
  - Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
  - 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))**
  - Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
  - 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:
- 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))**
  - If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
  - 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))**
  - 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(8))**

## 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):
  - a. June 21, 1999,
  - b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
  - c. The date on which a regulated substance is first present above a threshold quantity in a process.
40. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.
41. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR Part 68)**

## Emission Trading

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

## Permit To Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.<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, MDEQ.<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, MDEQ, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.<sup>2</sup> **(R 336.1201(4))**

**Footnotes:**

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

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

## B. SOURCE-WIDE CONDITIONS

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

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

## C. EMISSION UNIT CONDITIONS

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

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

### EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUEXCOMP-A	Compressor engine A, a natural gas fired, reciprocating, internal combustion Ingersoll Rand 410-KVR-TE engine rated at 3750 HP.	10/28/1981, 1997	FGEXCOMP
EUEXCOMP-B	Compressor engine B, a natural gas fired, reciprocating, internal combustion Ingersoll Rand 410-KVR-TE engine rated at 3750 HP.	10/28/1981, 1997	FGEXCOMP
EUEXGEN-B	Generator engine B, a natural gas fired, reciprocating, internal combustion Caterpillar G399 engine rated at 490 HP. Used to power an electrical generator for emergency power.	10/28/1981	NA
EUEXGLYDEH	Glycol dehydration unit	09/01/1989	NA
EUEXBOILER	Cleaver Brooks Natural gas boiler, 2.51 MMBtu/hr	10/28/1981	FG MACT DDDDD
EUEXHTR-A	Sivalls Natural Gas fired withdrawal heater, 10 MMBtu	1980	FG MACT DDDDD
EUEXHTR-B	Sivalls Natural Gas fired withdrawal heater, 10 MMBtu	1980	FG MACT DDDDD

**EUEXGEN-B  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

One Caterpillar G399, four-cycle, rich burn, spark ignition, natural gas fired reciprocating internal combustion engine rated at 490 HP used to power an emergency electrical generator.

Flexible Group ID: NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

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

**II. MATERIAL LIMIT(S)**

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

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

1. The permittee may operate EUEXGEN-B as necessary during emergencies with no time limit. **(40 CFR 63.6640(f)(1))**
2. The permittee may operate EUEXGEN-B for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the engine manufacturer or vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. **(40 CFR 63.6640(f)(2)(i))**
3. The permittee may operate EUEXGEN-B for up to 50 hours per year in non-emergency situations. The 50 hours are counted as part of the 100 hours of operation allowed under SC III.2. The 50 hours cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 63.6640(f)(3))**
4. The permittee must operate and maintain EUEXGEN-B according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 63.6625(e))**

5. The permittee must comply with the following operational requirements:
  - a. Change oil and filter every 500 hours of operation or annually, whichever comes first, except as allowed in SC III.6;
  - b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first;
  - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

If EUEXGEN-B is being operated during an emergency and it is not possible to shut down an engine to perform the work practice standards on the schedule required, the work practice standard can be delayed until the emergency is over. The work practice should be performed as soon as practicable after the emergency has ended. The permittee must report any failure to perform the work practice on the schedule required. **(40 CFR 63.6602, 40 CFR Part 63, Subpart ZZZZ, Table 2c, Item 6)**

6. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in SC III.5. The oil analysis must be performed at the same frequency specified for changing the oil in SC III.5. The oil analysis shall test for the following limits:
  - a. Total Acid Number has increased by more than 3.0 mg of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new;
  - b. Viscosity of the oil has changed by more than 20 % from the viscosity of the oil when new; or
  - c. Percent water content (by volume) is greater than 0.5 %.

If any of the limits are exceeded, the permittee must change the oil within 2 days of receiving the results of the analysis. If the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 days or before commencing operation, whichever is later. The analysis program must be part of the maintenance plan for EUEXGEN-B. **(40 CFR 63.6625(j))**

7. The permittee shall minimize EUEXGEN-B'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. **(40 CFR 63.6625(h))**
8. The permittee must be in compliance with the emission limitations and operating limitations in this subpart that apply to EUEXGEN-B at all times. **(40 CFR 63.6605(a))**
9. The permittee at all times must operate and maintain EUEXGEN-B in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of EUEXGEN-B. **(40 CFR 63.6605(b))**

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

1. The permittee shall equip EUEXGEN-B with a non-resettable hour meter. **(40 CFR 63.6625(f))**

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

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

NA

## **VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall keep the following records: **(40 CFR 63.6655)**
  - a. A copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance status, according to the requirements of 40 CFR 63.10(b)(2)(xiv).
  - b. Records of the occurrence and duration of each malfunction of the engines of EUEXGEN-B.
  - c. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning equipment to its normal or usual manner of operation.
  - d. Records to demonstrate continuous compliance with operating limitations in SC III.5.
  - e. Keep records of the maintenance conducted on EUEXGEN-B in order to demonstrate that EUEXGEN-B is operated and maintained according to the maintenance plan.
  - f. Records of hours of operation recorded through the non-resettable hour meter. The permittee shall document how many hours were spent during emergency operation; including what classified the operation as emergency and how many hours were spent during non-emergency operation.
2. The permittee must keep records of the parameters that are analyzed as part of the oil analysis program in SC III.6, the results of the analysis, and the oil changes for the engine. **(40 CFR 63.6625(j))**

## **VII. REPORTING**

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

See Appendix 8

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

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

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

## **IX. OTHER 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).

**EUEXGLYDEH**  
**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Glycol Dehydration Unit with maximum process capacity of 11.458 MMscf/hr of natural gas. The glycol dehydration unit includes a natural gas fired reboiler with a heat input capacity of 0.5 MMBtu/Hr. The Glycol Dehydration Unit has previously been permitted under Permit to Install Nos. 77-97, 3-01, and 6-12.

Flexible Group ID: NA

**POLLUTION CONTROL EQUIPMENT**

Thermal Oxidizer and Condenser

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	108.0 pounds <sup>2</sup>	Daily	EUEXGLYDEHY	SC VI.6	R 336.1205(1) R 336.1702(a) R 336.1901
2. VOC	18.3 tons <sup>2</sup>	12 month rolling time period as determined at the end of each calendar month	EUEXGLYDEHY	SC VI.7	R 336.1205(1) R 336.1702(a) R 336.1901
3. Benzene	Less than 0.9 megagrams (0.992 Tons) <sup>2</sup>	Calendar year	EUEXGLYDEHY	SC V.1, SC V.2, SC VI.7	R 336.1205(1) 40 CFR 63.1275(b)(1)(ii)
4. BTEX	Calculated using the equation in Appendix 7	Calendar year	EUEXGLYDEHY	SC V.3, SC V.5, SC V.6	40 CFR 63.1275(b)(1)(iii)

**II. MATERIAL LIMIT(S)**

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

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

- The natural gas used as fuel in the glycol dehydration unit shall not contain more than 20 grains of total sulfur per 100 cubic feet of natural gas. The permittee may also incinerate emissions from the glycol separator in the glycol reboiler burner.<sup>2</sup> (R 336.1301(1)(a), R 336.1205(1), R 336.1702(a), R 336.1901)
- The glycol dehydration unit shall not be operated unless the glycol separator is installed and operating properly. A properly operating glycol separator will volatilize organic compounds out of the rich glycol stream and route them to the glycol regenerator reboiler burner or thermal oxidizer.<sup>2</sup> (R 336.1205(1), R 336.1702(a), R 336.1901)
- The glycol dehydration unit shall not be operated while the thermal oxidizer is malfunctioning for more than 4,500 hours per 12 month rolling time period as determined at the end of each calendar month.<sup>2</sup> (R 336.1205(1), R 336.1702(a), R 336.1910)

4. The permittee shall not use stripping gas in the glycol dehydration unit.<sup>2</sup> **(R 336.1702(a))**
5. The permittee shall not operate the glycol dehydration system unless the thermal oxidizer is operating at a temperature of at least 760 °C (1400 °F), and the VOC destruction efficiency is at least 95 % by weight, except during a thermal oxidizer malfunction event.<sup>2</sup> **(R 336.1205(1), R 336.1702(a), R 336.1901)**
6. The permittee shall not operate the glycol dehydration system during a thermal oxidizer malfunction event unless the condenser exhaust temperature is 48.9 °C (120 °F) or less.<sup>2</sup> **(R 336.1205(1), R 336.1702(a), R 336.1901)**
7. The process vents from EUEXGLYDEH shall be vented to a control device or a combination of control devices through a closed-vent system. **(40 CFR 63.1275(b)(1)(iii)(A))**
8. The control device(s) shall be one of those specified below and must be designed and operated in accordance with the following requirements: **(40 CFR 63.1281(f)(1))**
  - a. A thermal oxidizer that reduces the concentration of BTEX to meet the emission limit in SC I.4, or the TOC or total HAP concentration in the exhaust gases at the outlet of the incinerator is reduced to a level equal to or less than 20 ppmv on a dry basis corrected to 3 % oxygen.
  - b. A condenser or other non-destructive control device that is designed and operated to reduce the mass content of BTEX in the gases vented by 95 %.
9. The permittee shall control HAP emissions from each GCG separator (flash tank) vent unless BTEX emissions from the reboiler vent and the flash tank are reduced to a level less than the limit in SC I.4. **(40 CFR 63.1275(c)(3))**
10. The permittee shall operate and maintain EUEXGLYDEH, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.<sup>2</sup> **(40 CFR 63.1274(h))**
11. The permittee shall operate each control device in accordance with the requirements specified below: **(40 CFR 63.1281(f)(2))**
  - a. Each control device used to comply with 40 CFR Part 63, Subpart HHH shall be operating at all times.
  - b. For each control device monitored in accordance with the requirements of SC VI.14-19 (40 CFR 63.1283(d)), the permittee shall demonstrate compliance according to the requirements of SC VI.9 (40 CFR 63.1282(e)).
12. When using a condenser to demonstrate continuous compliance with emission limits the control device shall be operated at or below the maximum operating temperature established in accordance with the requirements of SC VI.14 or a maximum of 48.9 °C (120 °F). When using a thermal oxidizer to demonstrate continuous compliance with emission limits the control device shall be operated at or above the minimum operating temperature established in accordance with the requirements of SC VI.14 or a minimum of 760 °C (1400 °F). **(40 CFR 63.1282(e)(1))**

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

1. The glycol dehydration unit shall be equipped with any combination of glycol pump(s) that have a combined capacity no greater than 12.8 gpm.<sup>2</sup> **(R 336.1205(1), R 336.1702(a), R 336.1901)**
2. The permittee shall not operate the glycol dehydration system unless the glycol regenerator still is equipped with a properly installed and operating thermal oxidizer except as specified in SC III.6.<sup>2</sup> **(R 336.1205(1), R 336.1702(a), R 336.1901)**
3. The thermal oxidizer shall be designed to maintain a minimum retention time of 0.5 seconds.<sup>2</sup> **(R 336.1205(1), R 336.1702(a), R 336.1901)**

4. The closed vent system shall be designed and operated in accordance with the following requirements: **(40 CFR 63.1281(c), 40 CFR 63.1283(c)(2)(iii))**
  - a. The closed-vent system shall route all gases, vapors, and fumes emitted from the material in an emission unit to a control device that meets the requirements specified in SC III.8.
  - b. The closed-vent system shall be designed and operated with no detectable emissions.
  - c. Any bypass devices in the closed-vent system that could divert emissions from entering the control device shall be equipped with a flow indicator at the inlet to the bypass device that takes readings every 15 minutes, and that sounds an alarm when the bypass device is open; or the bypass device valve at the inlet to the bypass device shall be secured using a car-seal or lock and key.
5. 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.
6. 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.<sup>2</sup> **(40 CFR 63.1283(d)(3), R 336.1205(1), R 336.1702(a), R 336.1901)**
  - a. For a thermal oxidizer, the temperature monitoring device shall have a minimum accuracy of  $\pm 2$  % 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 representative of the combustion zone temperature
  - b. For a condenser, the temperature monitoring device shall have a minimum accuracy of  $\pm 2$  % 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.

See Appendix 7

## 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 determine the composition, including the VOC and benzene content, of the natural gas processed in the glycol dehydration system at least once every five calendar years. The natural gas composition shall be determined by a method or methods which are standard in the natural gas industry, subject to approval by the Air Quality Division.<sup>2</sup> **(R 336.1205(1), R 336.1702(a), R 336.1901)**
2. Determination of the actual flow rate of natural gas to EUEXGLYDEH shall be made using either of the following procedures: **(40 CFR 63.1282(a)(1))**
  - a. Install and operate a monitoring instrument that directly measures natural gas flowrate to EUEXGLYDEH with an accuracy of  $\pm 2$  % or better. The annual natural gas flowrate shall be converted to a daily average by dividing the annual flowrate by the number of days per year each EU processed natural gas.
  - b. Document to the AQD's satisfaction, the actual annual average natural gas flowrate to EUEXGLYDEH.
3. Determination of the actual average BTEX emissions from EUEXGLYDEH with thermal oxidizer control device and/or condenser shall be made using the following procedure as specified in Appendix 7: **(40 CFR 63.1282(a)(2), R 336.1205(1), R 336.1702(a), R 336.1901)**
  - a. Use GRI-GLYCalc™, Version 3.0 or higher. Inputs to the model shall be representative of actual operating conditions of each glycol dehydration unit.
4. The permittee shall perform "no detectable emissions" testing for closed vent systems using the test methods and procedures specified in 40 CFR 63.1282(b). **(40 CFR 63.1282(b))**

5. If the permittee chooses to conduct a performance test to demonstrate that a control device meets the requirements of SC III.8 (40 CFR 1281(f)(1)) the permittee shall conduct emissions testing for compliance with the BTEX emission limit calculated using Equation 1 or the 20 ppmv TOC or Total HAP exhaust gas concentration reduction requirement using the following test methods and procedures: **(40 CFR 63.1282(d)(3))**
  - a. 40 CFR Part 60, Appendix A, Method 1 or 1A, as appropriate, shall be used for selection of the sampling sites. The sampling site shall be located at the outlet of the combustion device.
  - b. The gas volumetric flowrate shall be determined using 40 CFR, Part 60, Appendix A, Method 2, 2A, 2C, or 2D, as appropriate.
  - c. To determine compliance with the BTEX emission limit or the 20 ppmv TOC or Total HAP exhaust gas concentration reduction requirement, the permittee shall use one of the following methods: Method 18, 40 CFR Part 60, Appendix A; ASTM D6420-99 (Reapproved 2004); or any other method or data that have been validated according to the applicable procedures in 40 CFR Part 63, Appendix A, Method 301.
  - d. The permittee shall conduct performance tests according to the following schedule:
    - i. The first periodic performance test shall be conducted not later than 60 months after February 18, 2015. Subsequent periodic performance tests shall be conducted at intervals no longer than 60 months following the previous periodic performance test or whenever a source desires to establish a new operating limit. Combustion control devices meeting either of the following criteria are not required to conduct periodic performance tests;
      - A. A combustion control device whose model is tested under, and meets the criteria of manufacturers performance test in 40 CFR 63.1282(g).
      - B. A combustion control device demonstrating during the performance test that combustion zone temperature is an indicator of destruction efficiency and operates at a minimum temperature of 760 °C (1400 °F).
6. For condenser control devices, the permittee may use 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 as an alternative to the performance testing required in SC V.5. **(40 CFR 63.1282(d)(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 monitor and record the thermal oxidizer operating temperature on a daily basis when the glycol dehydration system is operating except during times of thermal oxidizer malfunction.<sup>2</sup> **(R 336.1205(1), R 336.1702(a), R 336.1901)**
2. The permittee shall monitor and record the condenser exhaust gas temperature on a daily basis when the glycol dehydration system is operating during times of thermal oxidizer malfunction.<sup>2</sup> **(R 336.1205(1), R 336.1702(a), R 336.1901)**
3. The permittee shall monitor and record the total hours of operation of the glycol dehydration system for each calendar month and each 12 month rolling time period.<sup>2</sup> **(R 336.1205(1), R 336.1702(a), R 336.1901)**
4. The permittee shall monitor and record the total hours of operation of the glycol dehydration system when the thermal oxidizer is malfunctioning for each calendar month and each 12 month rolling time period. **(R 336.1213(3)(a))**
5. The permittee shall monitor and record the amount of natural gas processed by the glycol dehydration system on a daily basis and maintain records of the annual glycol natural gas throughput each year.<sup>2</sup> **(R 336.1205(1), R 336.1702(a), R 336.1901, 40 CFR 63.1270(a)(3))**
6. The permittee shall calculate and record the VOC emissions from the glycol dehydration system each calendar day, using the method specified in Appendix 7 of this permit. The VOC emission records shall be available to the AQD upon request no later than the 15<sup>th</sup> of the next calendar month. **(R 336.1205(1), R 336.1702(a), R 336.1901)**

7. The permittee shall calculate and record VOC and benzene emissions for the glycol dehydration system on a monthly and 12 month rolling time period basis in tons and tons per year, respectively. Monthly and 12 month rolling time period records shall be made available to the AQD upon request no later than the 15<sup>th</sup> of the month for the previous calendar month.<sup>2</sup> **( R 336.1205(1), R 336.1702(a))**
8. The permittee shall retain calculations, for the thermal oxidizer when controlling the glycol dehydration unit, showing the VOC destruction efficiency is at least 95 % by weight. The calculations shall be retained and performed in a manner acceptable to the Air Quality Division.<sup>2</sup> **(R 336.1205(1), R 336.1702(a), R 336.1901)**
9. The permittee shall continuously monitor and record the temperature on the thermal oxidizer or condenser and calculate the daily average temperature for each operating day. Compliance with the control device performance requirements specified in SC III.8 shall be demonstrated using the requirements in SC 9.a-c. **(40 CFR 63.1282(e), 40 CFR 63.1283(d)(4))**
  - a. Establish a site specific maximum (condenser) or minimum (thermal oxidizer) temperature to define the conditions at which the control device must be operated to continuously achieve compliance with the emission limit.
  - b. Calculate the daily average of the condenser or thermal oxidizer temperature readings in accordance with SC VI.14.
  - c. Compliance is achieved when the daily average of the temperature readings calculated under SC VI.9.b. is either equal to or greater than the minimum or equal to or less than the maximum monitoring value established under SC VI.9.a.
10. When using a condenser as the control device the permittee may demonstrate compliance with BTEX emission reductions 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.15.d and shall identify the minimum percent reduction necessary to meet the BTEX limit.
  - b. The permittee must calculate the daily average condenser outlet temperature in accordance with SC VI.14.
  - 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.
  - e. Compliance is achieved if the average BTEX emission reduction is equal to or greater than the minimum percent reduction established in SC VI.10.a.
11. 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 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.11.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.11.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 40 CFR 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.
12. Any parts of the closed-vent system that are designated, as described below, as unsafe to inspect are exempt from the inspection requirements of SC VI.11 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.11.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.
  13. Any parts of the closed-vent system that are designated, as described below, as difficult to inspect are exempt from the inspection requirements of SC VI.11 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.
  14. Using the data recorded by the monitoring system, except for inlet gas flowrate, the permittee must calculate the daily average value for each 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 % of the operating hours in an operating day to compute the daily average. **(40 CFR 63.1283(d)(4))**
  15. For the control devices used to comply with 40 CFR Part 63, Subpart HHH, the permittee shall establish a minimum operating parameter value or a maximum operating parameter value, as appropriate for the control device, to define the conditions at which the control device must be operated to continuously achieve the emission limits in Section I of EUEXGLYDEH. Each minimum or maximum operating parameter value shall be established as follows: **(40 CFR 63.1283(d)(5)(i), 40 CFR 63.1283(d)(5)(ii))**
    - a. If the permittee conducts performance tests to demonstrate that the control device achieves the applicable performance requirements, then the minimum operating parameter value or the maximum operating parameter value 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 minimum operating parameter value or the maximum operating parameter value 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 control device where the performance test requirement was met under manufacturers' performance test to demonstrate that the control device achieves the applicable performance requirements, then the maximum inlet gas flowrate shall be established based on the performance test and supplemented, as necessary, by the manufacturer recommendations.

- d. When using condensers as the control device the permittee shall also 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.
16. A deviation for a control device 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. When multiple operating parameters are monitored for the same control device and during the same operating day, and more than one of these operating parameters meets an excursion criterion specified below, then a single excursion is determined to have occurred for the control device for that operating day. **(40 CFR 63.1283(d)(6)(i-iii))**
- a. When the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, 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 SC VI.15.d is less than the identified 30 day required percent reduction.
- c. When the monitoring data are not available for at least 75 % of the operating hours in a day.
17. A deviation occurs for a closed-vent system containing one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device when: **(40 CFR 63.1283(d)(6)(iv))**
- a. The flow indicator indicates that flow has been detected and that the stream has been diverted away from the control device to the atmosphere.
- b. If the seal or closure mechanism has been broken, the bypass line valve position has a changed, the key for the lock-and-key type lock has been checked out, or the car-seal has broken.
18. For each deviation, the permittee shall be deemed to have failed to have applied control in a manner that achieves the required operating parameter limits. Failure to achieve the required operating parameter limits is a violation of this standard. **(40 CFR 63.1283(d)(7))**
19. Nothing in SCs VI.14-19 shall be construed to allow or excuse a monitoring parameter deviation caused by any activity that violates other applicable provisions of this subpart. **(40 CFR 63.1283(d)(9))**
20. The permittee shall maintain the records specified in 40 CFR 63.10(b)(2). **(40 CFR 63.1284(b)(2))**
21. The permittee shall maintain the following records: **(40 CFR 63.1284(b)(4), 40 CFR 63.1284(g))**
- a. Continuous records of the equipment operating parameters specified to be monitored in SCs VI.14-19.
- 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.14.
- c. For condensers using reduction efficiency for compliance, records of the annual 30 day rolling average condenser efficiency determined in SC VI.12.d shall be kept in addition to the daily averages.
- d. The following records for a control device whose model is tested under the manufacturers' performance test:
- i. All visible emission readings and flowrate calculations made during the compliance determination
- ii. All hourly records and other recorded periods when the pilot flame is absent.
- e. Hourly records of the times and durations of all periods when the vent stream is diverted from the control device or the device is not operating.
- f. Where a seal or closure mechanism is used to comply with the closed vent bypass, hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken.
22. 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.12, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment. **(40 CFR 63.1284(b)(5))**

23. 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.13, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment. **(40 CFR 63.1284(b)(6))**
24. The permittee shall maintain the following records for each inspection conducted in accordance with SC VI.11 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 condition 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.
25. For each inspection conducted in accordance with SC VI.11 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))**
26. 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.10, 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), R 336.1702(a))**

**See Appendix 7**

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit the notification of the planned date of a performance test and site-specific test plan at least 60 days before the test. **(40 CFR 63.1285(b)(3))**
5. The permittee shall prepare Periodic Reports in accordance with a. and b. below and submit them to the Administrator. **(40 CFR 63.1285(e))**
  - a. The permittee shall submit Periodic Reports semiannually. The reports 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. 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.16-17 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.11 during which a leak or defect is detected, the records described in SC VI.26 must be included in the next Periodic Report.

- iii. For each closed-vent system with a bypass line, records required under SC VI.21.e-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.
6. 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;
  - d. Information required by the Notification of Compliance Status Report for changes involving the addition of processes or equipment.
7. Within 60 days after the date of completing a performance test (defined in 40 CFR 63.2) you must submit the results of the performance tests to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). Performance test data must be submitted in the file format generated through use of EPA'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))**

See Appendix 8

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

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVEX008 (condenser)	2 <sup>1</sup>	20 <sup>1</sup>	R 336.1901
2. SVEX009 (oxidizer)	NA	20 <sup>1</sup>	R 336.1901

**IX. OTHER REQUIREMENT(S)**

- 1. The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart A and Subpart HHH, National Emission Standards for Hazardous Air Pollutants (NESHAP) from Natural Gas Transmission and Storage Facilities. **(40 CFR Part 63, Subpart HHH, 40 CFR 63.1274(d)(2))**
- 2. The permittee shall determine major source status using the maximum annual facility natural gas throughput calculated according to 40 CFR 63.1270(a)(1)(i-iv). As an alternative to calculating the maximum natural gas throughput, the owner or operator of a new or existing source may use the facility design maximum natural gas throughput to estimate the maximum potential emissions. **(40 CFR 63.1270(a)(1))**
- 3. The permittee shall determine the maximum values for other parameters used to calculate potential emissions as the maximum over the same period for which maximum throughput is determined. These parameters shall be based on an annual average or the highest single measured value. For estimating maximum potential emissions from glycol dehydration units, the glycol circulation rate used in the calculation shall be the unit's maximum rate under its physical and operational design consistent with the definition of potential to emit in 40 CFR 63.2. **(40 CFR 63.1270(a)(4))**

4. 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 the 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 the site-specific monitoring plan. **(40 CFR 63.1283(d)(1)(ii-iv))**
  - 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 other audit procedures;
  - d. Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR 63.8(c)(1) and 40 CFR 63.8(c)(3);
  - e. Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR 63.10(c), 40 CFR 63.10(e)(1), and 40 CFR 63.10(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).

## D. FLEXIBLE GROUP CONDITIONS

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

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

### FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGEXCOMP	Compressor engines A and B, natural gas fired, reciprocating, internal combustion, Ingersoll Rand 410-KVR-TE engines, each rated at 3750 HP.	EUEXCOMP-A, EUEXCOMP-B
FG MACT DDDDD	(1) 2.51 MMBtu/hr Cleaver Brooks, Natural Gas Boiler and (2) 10 MMBtu/hr, Sivalls withdrawal heaters.	EUEXBOILER, EUEXHTR-A EUEXHTR-B

**FGEXCOMP  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Two Ingersoll Rand, Model 410-KVR-TE, four-cycle, lean burn, spark ignition, natural gas-fired reciprocating internal combustion engines rated at 3,750 HP each.

**Emission Units:** EUEXCOMP-A, EUEXCOMP-B

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO <sub>x</sub>	99.2 lbs/hr <sup>2</sup>	NA	Each compressor engine	SC V.1	<b>40 CFR 52.21</b>

**II. MATERIAL LIMIT(S)**

1. The natural gas used as fuel for the compressor engines shall not contain more than 20 grains of total sulfur per 100 cubic feet of natural gas.<sup>2</sup> **(R 336.1301(1)(a), R 336.1403(1))**

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

1. The permittee shall maintain an AQD approved Preventative Maintenance Plan for FGEXCOMP. **(R 336.1213(3), R 336.1911)**

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

1. The compressor engines shall be designed so that each engine does not emit more than 12 grams of NO<sub>x</sub> per brake horsepower hour at 100 % speed and 100 % torque.<sup>2</sup> **(40 CFR 52.21)**

**V. TESTING/SAMPLING**

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

1. The NO<sub>x</sub> emissions from each engine shall be tested once every five years. The testing shall be performed in accordance with reference methods approved by the AQD. **(R 336.1213(3))**
2. The permittee shall determine the composition, including total sulfur, of the natural gas burned in the compressor engines at least once every five calendar years. The natural gas composition shall be determined by a method or methods which are standard in the natural gas industry, subject to approval by the Air Quality Division. **(R 336.1213(3)(a))**

**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 maintain records of the preventative maintenance performed in accordance with an AQD approved Preventative Maintenance Plan. (R 336.1213(3), R336.1911)

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. (R 336.12001(3))
5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. (R 336.2001(4))
6. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. (R 336.2001(5))

See Appendix 8

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

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVEX001	30 <sup>1</sup>	49.2 <sup>1</sup>	R 336.1901
2. SVEX002	30 <sup>1</sup>	49.2 <sup>1</sup>	R 336.1901

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall maintain the engines in accordance with an AQD approved Preventative Maintenance Plan. (R 336.1213(3), R 336.1911)

**Footnotes:**

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

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

**FG MACT DDDDD  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Requirements for existing Gas 1, (Natural Gas only) for existing Boilers and Process Heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD. These existing boilers or process heaters must comply with this subpart no later than January 31, 2016, except as provided in 40 CFR 63.6(i).

**Emission Units:** EUEXBOILER, EUEXHTR-A, EUEXHTR-B

The collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters within the units designed to burn gas 1 fuel subcategory as defined in 40 CFR 63.7575.

Less than 5 MMBtu/hr	(1) Cleaver Brooks natural gas boiler, 2.51 MMBtu/hr
Equal to or greater than 5 MMBtu/hr and less than 10 MMBtu/hr	NA
Equal to or greater than 10 MMBtu/hr	(2) Sivalls natural gas fired withdrawal heaters 10MMbtu each.

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

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

**II. MATERIAL LIMIT(S)**

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

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

1. The permittee must meet the tune-up and Energy Assessment work practice standards for each applicable boiler or process heater at the source. **(40 CFR 63.7500(a)(1), 40 CFR Part 63, Subpart DDDDD, Table 3, 1-4)**
2. The permittee must operate and maintain affected sources, 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))**
3. The permittee may obtain approval from the Administrator to use an alternative to the work practice standards noted in SC III.1 and SC III.2. **(40 CFR 63.7500(b))**

4. The permittee must:
  - a. Complete a tune-up every 5 years (61 months) for boilers/process heaters less than or equal to 5 MMBTU/hr (Cleaver Brooks boiler). **(40 CFR 63.7500(e), 40 CFR 63.7515(d))**
  - b. Complete a tune-up annually (13 months) for boilers/process heaters greater than 10 MMBTU/hr (Sivalls withdrawal heaters). **(40 CFR 63.7540(a)(10), 40 CFR 63.7515(d))**
  - c. Conduct the tune-up within 30 calendar days of startup, if the unit is not operating on the required date for a tune-up. **(40 CFR 63.7540(a)(13))**
  - d. Follow the procedures described in SC III 6.a-f for all initial and subsequent tune ups. **(40 CFR 63.7540(a)(10), 40 CFR Part 63, Subpart DDDDD, Table 3)**
5. For affected sources (as defined in 40 CFR 63.7490) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, the permittee must complete a subsequent tune-up within 30 days of startup by following the procedures described in SC III 6.a-f. **(40 CFR 63.7515(g))**
6. The permittee must demonstrate continuous compliance with the tune-up requirement by completing the following: **(40 CFR 63.7540(a))**
  - a. Inspect the burner, and clean or replace any components of the burner as necessary (the permittee may delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**
  - b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
  - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**
  - d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<sub>x</sub> requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
  - e. Measure the concentrations in the effluent stream of CO in ppm by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**
  - f. Maintain on-site and submit, if requested by the Administrator, the most recent periodic report containing the information as listed below. **(40 CFR 63.7540(a)(10)(vi))**
    - i. The concentrations of CO in the effluent stream in ppm by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
    - ii. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**
    - iii. 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))**
7. For the Cleaver Brooks boiler that has a heat input capacity of less than or equal to 5 MMBTU/hr, the permittee may delay the burner inspection specified in SC III 6.a. (40 CFR 63.7540(a)(10)(i)) until the next scheduled or unscheduled unit shutdown, but the permittee must inspect each burner at least once every 72 months. **(40 CFR 63.7540(a)(12))**

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

NA

## **V. TESTING/SAMPLING**

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

NA

## **VI. MONITORING/RECORDKEEPING**

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

1. The permittee must keep a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**
2. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 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(a-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 tune-up compliance reports. The first compliance report for EUEXHTR-A and EUEXHTR-B shall cover the period January 31, 2016 thru December 31, 2016 and must be postmarked or submitted no later than March 15<sup>th</sup> of 2017. The first compliance report for EUEXBOILER shall cover the period January 31, 2016 thru December 31, 2020 and must be postmarked or submitted no later than March 15<sup>th</sup> of 2021. Subsequent compliance reports must be postmarked or submitted by March 15<sup>th</sup> of the year following the tune-up and must cover the applicable 1 or 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 be submitted 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 the state and EPA Region 5. At the discretion of the Administrator, the permittee must submit these reports, in the format specified by the Administrator. **(40 CFR 63.7550(b), 40 CFR 63.10(a)(5), 40 CFR 63.7550(h)(3))**
5. The permittee must include the following information in the compliance report. **(40 CFR 63.7550(c), 40 CFR 63.7550(c)(1))**
  - a. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
  - b. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
  - c. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
  - d. The total operating time during the reporting period. **(40 CFR 63.7550(c)(5)(iv))**
  - e. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5 year period and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**

See Appendix 8

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

NA

**IX. OTHER REQUIREMENT(S)**

1. The permittee must comply with all applicable requirements of 40 CFR Part 63, Subpart DDDDD, for existing boilers and process heaters, unless an extension has been granted per 40 CFR 63.6(i). **(40 CFR 63.7495(b))**
2. The permittee must be in compliance with the applicable work practice standards. **(40 CFR 63.7505(a))**

**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
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
EU	Emission Unit	gr	Grains
FG	Flexible Group	HAP	Hazardous Air Pollutant
GACS	Gallons of Applied Coating Solids	Hg	Mercury
GC	General Condition	hr	Hour
GHGs	Greenhouse Gases	HP	Horsepower
HVLP	High Volume Low Pressure*	H <sub>2</sub> S	Hydrogen Sulfide
ID	Identification	kW	Kilowatt
IRSL	Initial Risk Screening Level	lb	Pound
ITSL	Initial Threshold Screening Level	m	Meter
LAER	Lowest Achievable Emission Rate	mg	Milligram
MACT	Maximum Achievable Control Technology	mm	Millimeter
MAERS	Michigan Air Emissions Reporting System	MM	Million
MAP	Malfunction Abatement Plan	MW	Megawatts
MDEQ	Michigan Department of Environmental Quality	NMOC	Non-methane Organic Compounds
MSDS	Material Safety Data Sheet	NO <sub>x</sub>	Oxides of Nitrogen
NA	Not Applicable	ng	Nanogram
NAAQS	National Ambient Air Quality Standards	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM10	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
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
BTEX	Benzene Toluene Ethylbenzene Xylene	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-B7196-2012. 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-B7196-2012a is being reissued as Source-Wide PTI No. MI-PTI-B7196-2017.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
6-12	201200091/ June 28, 2013	Incorporate Permit to Install (PTI) No. 6-12. PTI No. 6-12 changed the sampling frequency for EXGLYDEH from one year to five years. Also, for EUGLYDEH and FGEXCOMP, the fuel requirements were changed from sweet natural gas to natural gas containing less than or equal to 20 grains of total sulfur per 100 cubic feet of natural gas.	EUGLYDEH, FGEXCOMP
NA	201200100/ June 28, 2013	The facility has decided to permanently change to commercial purchase power. This change affects how the two generator engines (EUEXGEN-A and EUEXGEN-B) are utilized. Units will be used to power an emergency electricity generator.	EUEXGEN-B

**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 EUEXGLYDEH. Alternative calculations shall be approved by the District Supervisor.

**Glycol Dehydration Unit**

Non-methane VOC emissions from the glycol dehydrator shall be calculated by using an emission factor derived by the GRI-GLYCalc™ computer model Version 3.0 or later. Inputs to the model shall be representative of actual operating conditions of the glycol dehydrator. Non-methane VOC composition of the natural gas which is input into the model shall be as determined by the most recent analysis. The permittee shall recalculate the emission factor each time the natural gas is analyzed to determine its non-methane VOC content.

**EUEXGLYDEH SC VI.6.**

$$VOC = N_{Gas} * EF$$

Where:

**VOC** is the pounds of volatile organic compounds emitted in a 24 hour period from midnight to midnight.  
**NGa** is the amount, in million standard cubic feet, of natural gas processed through the system in a 24 hour period from midnight to midnight.

**EF** is an emission factor expressed as pounds of VOC emitted per million cubic feet of gas processed.

EF is based on calculations from the GRI GlyCalc (tm) computer model. EF shall be periodically recalculated, using GRI GlyCalc, (tm), as more current data becomes available. The calculated EF is subject to approval by the AQD District Supervisor.

**Glycol Dehydrator System, EUEXGLYDEH SC I.3**

Determine amount of benzene emitted (refer to 40 CFR 63.1282(a)(2), Subpart HHH for current language). The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit benzene emissions to meet the criteria for the exemption from control requirements under 40 CFR 63.1274(d) (also listed in EUGLYDEHY SC I.3.) The owner or operator shall determine actual average benzene emissions using the model GRI-GLYCalc, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1). Alternatively the owner or operator shall determine an average mass rate of benzene emissions in kilograms per hour through direct measurement by performing three runs of Method 18 in 40 CFR Part 60, Appendix A (or an equivalent method), and averaging the results of the three runs. Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year. Emissions shall be determined either uncontrolled or with federally enforceable controls in place.

**Glycol Dehydration System, EUEXGLYDEH SC I.4**

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