MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

EFFECTIVE DATE: April 20, 2018

ISSUED TO

Consumers Energy-Overisel Compressor Station

State Registration Number (SRN): N5792

LOCATED AT

4131 138th Avenue, Hamilton, Michigan 49419

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-N5792-2018

Expiration Date: April 20, 2023

Administratively Complete ROP Renewal Application Due Between October 20, 2021 and October 20, 2022

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

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-N5792-2018

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

Mary A. Douglas, Kalamazoo District Supervisor

TABLE OF CONTENTS

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 are identified in Parts B, C, D and/or the appendices.

In accordance with Rule 213(2)(a), all underlying applicable requirements will be identified for each ROP term or condition. All terms and conditions that are included in a PTI, are streamlined or subsumed, 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 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). **(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. Except as provided in Subrules 2, 3, and 4 of Rule 301, states in part; "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 Rule 301(1)(a) or (b) unless otherwise specified in this ROP." The grading of visible emissions shall be determined in accordance with Rule 303: **(R 336.1301(1) in pertinent part)**
    a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
    b. A limit specified by an applicable federal new source performance standard.

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

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1). **(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(4))**

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. **(R 336.1912)**

Permit Shield

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

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

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

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

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

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

Revisions

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

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

32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(9))**

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

Reopenings

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

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(7))**

Stratospheric Ozone Protection

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

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

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR, Part 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, Part 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR, Part 68.130, or
    c. The date on which a regulated substance is first present above a threshold quantity in a process.

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

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

Emission Trading

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

Permit To Install (PTI)

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

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

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

46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months, or has been interrupted for 18 months, the applicable terms and conditions from that PTI 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. [2] **(R 336.1201(4))**

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

B. SOURCE-WIDE CONDITIONS

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

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

C. EMISSION UNIT 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 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
			Removed 7/1/2021
			Removed 3/31/2022
EUDEHY	A small glycol dehydration system processing natural gas using triethylene glycol (TEG). The system consists of two identical halves. Each half has two contact towers, a flash tank, a surge tank, a reboiler, and a thermal oxidizer. This unit is subject to 40 CFR Part 63 Subpart HHH	11/9/2021	FGMACTHHHSMALL
EUENGINE1-1	Natural gas fired reciprocating engine used for gas compression; 19 MMBtu/hr (2700 HP).	Pre 08-01-67	FGENGINES
EUENGINE1-2	Natural gas fired reciprocating engine used for gas compression; 19 MMBtu/hr (2700 HP).	Pre 08-01-67	FGENGINES
EUENGINE1-3	Natural gas fired reciprocating engine used for gas compression; 19 MMBtu/hr (2700 HP).	Pre 08-01-67	FGENGINES
EUENGINE1-4	Natural gas fired reciprocating engine used for gas compression; 19 MMBtu/hr (2700 HP).	Pre 08-01-67	FGENGINES
EUEMERGGEN	Natural gas fueled engine driving a 1,462 hp (1.3 megawatt) emergency generator. Manufactured in 2012 (PTI No. 9-13).	2013/ 11-26-13	NA
EUADMINGEN	Cummins Model QSJ5.9G-G3 natural gas-fired emergency engine. Nameplate = 127.6 HP	2018	NA
EUFUELHEATER1A	Natural gas-fired fuel gas heater in Warehouse; 150,000 Btu/hr.	06-24-05	FGBLRMACT
EUFUELHEATER1B	Natural gas-fired fuel gas heater for the Line Heaters; 150,000 Btu/hr.	06-24-05	FGBLRMACT
EUBOILER1	Natural gas-fired boiler for building heat (Auxiliary Building); 1,680,000 Btu/hr.	12-01-10	FGBLRMACT
EULINEHEATER1	Natural gas-fired pipeline heater (Salem Field); 4,000,000 Btu/hr.	04-01-61	FGBLRMACT
EULINEHEATER2	Natural gas-fired pipeline heater (Salem Field); 4,000,000 Btu/hr.	04-01-61	FGBLRMACT
EULINEHEATER3	Natural gas-fired pipeline heater (Salem Field); 4,000,000 Btu/hr.	04-01-61	FGBLRMACT

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EULINEHEATER4A	Natural gas-fired pipeline heater (Overisel Field); 9,200,000 Btu/hr	10-01-04	FGBLRMACT
EULINEHEATER5A	Natural gas-fired pipeline heater (Overisel Field); 9,200,000 Btu/hr.	10-01-04	FGBLRMACT
EULINEHEATER6A	Natural gas-fired pipeline heater (Overisel Field); 9,200,000 Btu/hr.	10-01-04	FGBLRMACT
EUREBOILER1	Process heater (part of EUDEHY); heat input rating of 3 MMBtu/hr	11/9/2021	FGBLRMACT
EUREBOILER2	Process heater (part of EUDEHY); heat input rating of 3 MMBtu/hr	11/9/2021	FGBLRMACT
EURULE285(2)(mm)	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278 and 285 (mm).	NA	FGRULE285(2)(mm)

EUEMERGGEN
EMISSION UNIT CONDITIONS

DESCRIPTION

Natural gas fueled engine driving a 1,462 hp (1.3 megawatt) emergency generator. Manufactured in 2012 (PTI No. 9-13).

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
1. NOx	2 g/hp-hr[2]	Stack Testing	EUEMERGGEN	SC V.1	**40 CFR 60.4233(e)**
2. CO	4 g/hp-hr[2]	Stack Testing	EUEMERGGEN	SC V.1	**40 CFR 60.4233(e)**
*Test Protocol shall determine averaging time.					

II. MATERIAL LIMIT(S)

1. The permittee shall burn only natural gas in EUEMERGGEN.[2] **(40 CFR 60.4230)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee may operate EUEMERGGEN for no more than 100 hours per year based on a 12-month rolling time period as determined at the end of each calendar month for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per year. EUEMERGGEN may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply non-emergency power as part of a financial arrangement with another entity.[2] **(40 CFR 60.4243(d))**

2. The permittee shall operate and maintain EUEMERGGEN such that it meets the emission limits in SC I.1 and I.2 over the entire life of the engine.[2] **(40 CFR 60.4234, 40 CFR 60.4243(b))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain EUEMERGGEN with a non-resettable hour meters to track the operating hours.[2] **(R 336.1205(1)(a) and (3), R 336.1225, 40 CFR 60.4237)**

2. The nameplate capacity of EUEMERGGEN shall not exceed 1,462 hp (1.3 megawatts), as certified by the equipment manufacturer.[2] **(40 CFR 60.4230)**

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 conduct an initial performance test for EUEMERGGEN within one year after startup of the engine to demonstrate compliance with the emission limits in 40 CFR 60.4233(e). If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4244. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. After conducting the initial performance test, the permittee shall conduct subsequent performance testing, every 8,760 hours or 3 years, whichever comes first. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.[2] **(40 CFR 60.4243, 40 CFR 60.4244, 40 CFR Part 60, Subpart JJJJ)**

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 complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[2] **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))**

2. The permittee shall keep, in a satisfactory manner, records of testing required in SC V.1 or manufacturer certification and maintenance records documenting that EUEMERGGEN meets the applicable emission limitations contained in the federal Standards of Performance for New Stationary Sources 40 CFR Part 60 Subpart JJJJ. The permittee shall keep all records on file and make them available to the Department upon request.[2] **(40 CFR 60.4245)**

3. The permittee shall monitor and record the hours of operation of EUEMERGGEN during emergencies and non-emergencies, on a monthly and 12-month rolling time period basis, in a manner acceptable to the District Supervisor, Air Quality Division. The permittee shall record the time of operation of EUEMERGGEN and the reason it was in operation during that time.[2] **(40 CFR 60.4243)**

4. The permittee shall keep records of the following information for EUEMERGGEN:
   a. All notifications submitted to comply with 40 CFR Part 60 Subpart JJJJ and all documentation supporting any notification.
   b. Maintenance conducted on EUEMERGGEN.
   c. If EUEMERGGEN is a certified engine, documentation from the manufacturer that the EUEMERGGEN is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.
   d. If EUEMERGGEN is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that EUEMERGGEN meets the emission standards.[2] **(40 CFR 60.4245(a))**

5. The permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 60.4243(b)(2)(ii))**

VII. REPORTING

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

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

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVEMERGGEN	22[2]	18.5[2]	**R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subpart A and Subpart JJJJ, as they apply to EUEMERGGEN.[2] **(40 CFR Part 60, Subparts A and JJJJ)**

2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart ZZZZ, as they apply to EUEMERGGEN.[2] **(40 CFR Part 63, Subparts A and ZZZZ, 40 CFR 63.6595)**

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

EUADMINGEN
EMISSION UNIT CONDITIONS

DESCRIPTION

Natural gas fired emergency stationary RICE with an engine nameplate of 127.6 HP for emergency power generation.

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
1. NOx	10 g/HP-hr[a]	Hourly	EUADMINGEN	SC VI.1, SC VI.2	**40 CFR 60.4233(e), Table 1 to 40 CFR Part 60, Subpart JJJJ**
2. CO	387 g/HP-hr[a]	Hourly	EUADMINGEN	SC VI.1, SC VI.2	**40 CFR 60.4233(e), Table 1 to 40 CFR Part 60, Subpart JJJJ**

[a] The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO_x + HC

II. MATERIAL LIMIT(S)

1. The permittee shall burn only pipeline quality natural gas, as defined in 40 CFR 60.4248, in EUADMINGEN[2].

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. There is no time limit on the use of EUADMINGEN in emergency situations.[2] **(40 CFR 60.4243(d)(1))**

2. The permittee may operate EUADMINGEN for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year.[2] **(40 CFR 60.4243(d)(2))**

3. EUADMINGEN may operate up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing as described in SC III.2. Except as provided in 40 CFR 60.4243(d)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or demand response, or to generate income for the permittee by supplying power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.[2] **(40 CFR 60.4243(d)(3))**

4. The permittee shall operate and maintain EUADMINGEN such that it meets the emission limits in SC I.1 and I.2 over the entire life of the engine.[2] **(40 CFR 60.4234)**

5. If EUADMINGEN is operated as a certified engine, according to procedures specified in 40 CFR Part 60, Subpart JJJJ, for the same model year, the permittee shall meet the following requirements for EUADMINGEN:

a) Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions,

b) Meet the requirements as specified in 40 CFR 1068 Subparts A through D, as applicable, including labeling and maintaining certified engines according to the manufacture's recommendations,

c) Only change those engine settings that are permitted by the manufacturer.

If the permittee does not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine and be subject to SC III.6.[2] **(40 CFR 60.4243(b)(1))**

6. If EUADMINGEN is a non-certified engine, or a certified engine operating in a non-certified manner, per 40 CFR Part 60, Subpart JJJJ, the permittee shall keep a maintenance plan for EUADMINGEN and shall, to the extent practicable, maintain and operate EUADMINGEN in a manner consistent with good air pollution control practice for minimizing emissions.[2] **(40 CFR 60.4243(b)(2))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain EUADMINGEN with a non-resettable hours meter to track the operating hours.[2] **(40 CFR 60.4237(c))**

V. TESTING/SAMPLING

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

1. If EUADMINGEN is operated and maintained according to the manufacturer's emission-related written instructions, no performance testing is required. **(40 CFR 60.4243(a)(1), 40 CFR 60.4243(b)(1) and 40 CFR Part 60, Subpart JJJJ)**

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 records of the documentation from the manufacturer that the EUADMINGEN is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable. The permittee shall keep all records on file and make them available to the Department upon request.[2] **(R 336.1205(1)(a), 40 CFR 60.4233(e), 40 CFR 60.4243, 40 CFR 60.4245(a))**

2. The permittee shall keep the manufacturer's emission-related written instructions and records demonstrating that EUADMINGEN has been maintained according to them, as specified in SC III.5. The permittee shall keep all records on file and make them available to the Department upon request.[2] **(40 CFR 60.4243, 40 CFR 60.4245(a), 40 CFR Part 60, Subpart JJJJ)**

3. The permittee shall monitor and record the total hours of operation for EUADMINGEN. The permittee shall document how many hours are spent for emergency operation of EUADMINGEN including what classified the operation as emergency.[2] **(40 CFR 60.4243(d))**

VII. REPORTING

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

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

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

VIII. STACK/VENT RESTRICTION(S)

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

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

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subpart A and Subpart JJJJ, as they apply to EUADMINGEN.[2] **(40 CFR Part 60, Subparts A & JJJJ)**

2. The permittee shall comply with the provisions of the federal National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, as they apply to EUADMINGEN.[2] **(40 CFR 63.6590(c)(3), 40 CFR Part 63, Subparts A & ZZZZ)**

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

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 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
	.	Removed 7/1/2021
FGENGINES	Four (4) existing natural gas fired reciprocating engines used for gas compression; 19 MMBtu/hr (2700 HP) each.	EUENGINE1-1 EUENGINE1-2 EUENGINE1-3 EUENGINE1-4
FGMACTHHHSMALL	Requirements for new, small glycol dehydrators (<0.9 Mg/yr benzene emissions) at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart HHH	EUDEHY
FGBLRMACT	New and existing industrial boilers and process heaters fired by natural gas and subject to 40 CFR Part 63, Subpart A and Subpart DDDDD.	EUFUELHEATER1A EUFUELHEATER1B EUBOILER1 EULINEHEATER1 EULINEHEATER2 EULINEHEATER3 EULINEHEATER4A EULINEHEATER5A EULINEHEATER6A EUREBOILER1 EUREBOILER2
FGRULE285(2)(mm)	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 285(mm).	EURULE285(2)(mm)

FGENGINES
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Four (4) existing natural gas fired reciprocating engines for gas compression; 19,000,000 Btu/hr each.

Emission Units: EUENGINE1-1, EUENGINE1-2, EUENGINE1-3, EUENGINE1-4

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 shall only fire natural gas in the reciprocating engines at this facility. **(R 336.1201(1))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor and record the natural gas consumption rate for each emission unit listed in FGENGINES for each calendar month. **(R 336.1213(3)(b))**

VII. REPORTING

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

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

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

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

IX. OTHER REQUIREMENT(S)

2. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines, but the initial compliance date if the units become subject due to reconstruction. **(40 CFR, Part 63, Subparts A and ZZZZ)**

3. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart JJJJ, for Stationary Reciprocating Internal Combustion Engines, but the initial compliance date if the units become subject due to reconstruction. **(40 CFR, Part 63, Subparts A and JJJJ)**

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

FGBLRMACT
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

New and existing industrial boilers and process heaters fired by natural gas and subject to 40 CFR Part 63, Subpart A and Subpart DDDDD.

Emission Units: EUFUELHEATER1A, EUFUELHEATER1B, EUBOILER1, EULINEHEATER1, EULINEHEATER2, EULINEHEATER3, EULINEHEATER4A, EULINEHEATER5A, EULINEHEATER6A, EUREBOILER1, EUREBOILER2

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 Part 63.7575. At the time of permit renewal:

Less than 5 MMBtu/hr	EUFUELHEATER1A, EUFUELHEATER1B, EUBOILER1, EULINEHEATER1, EULINEHEATER2, EULINEHEATER3, EUREBOILER1, EUREBOILER2
Equal to or greater than 5 MMBtu/hr and less than 10 MMBtu/hr	EULINEHEATER4A, EULINEHEATER5A, EULINEHEATER6A
Equal to or greater than 10 MMBtu/hr	NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall only burn natural gas as defined in 40 CFR 63.7575 in each emission unit in FGBLRMACT. **(40 CFR 63.7499(l))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must meet the tune-up and Energy Assessment work practice standards for each applicable boiler or process heater at the source. **(40 CFR 63.7500(a)(1), 40 CFR Part 63, Subpart DDDDD, Table 3, Nos. 1-4)**

2. The permittee must operate and maintain affected sources in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

3. The permittee may obtain approval from the Administrator to use an alternative to the work practice standards noted in SC III.1 and/or SC III.2. **(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 million Btu per hour. **(40 CFR 63.7500(e), 40 CFR 63.7515(d))**
   b. Complete a tune-up every 2 years (25 months) for boilers greater than 5 million Btu per hour and less than 10 million Btu per hour. **(40 CFR 63.7500(e), 40 CFR 63.7515(d))**

c. Complete a tune-up annually (13 months) for boilers greater than 10 million Btu per hour. **(40 CFR 63.7540(a)(10), 40 CFR 63.7515(d))**

d. Conduct the tune-up within 30 calendar days of startup, if the unit is not operating on the required date for a tune-up. **(40 CFR 63.7540(a)(13))**

e. Follow the procedures described in SC IX 4.a through SC IX 4.f for all initial and subsequent tune ups. **(40 CFR 63.7540(a)(10), 40 CFR Part 63, Subpart DDDDD, Table 3)**

f. Complete the Initial tune ups on all affected units no later than January 31, 2016, except as provided in **40 CFR 63.7510(j), 40 CFR 63.7540(a)(13)**.

5. The permittee must complete the one-time energy assessment no later than January 31, 2016. **(40 CFR 63.7510(e))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee must keep a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**

2. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 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), (b), and (c))**

VII. REPORTING

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

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

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

4. The permittee must submit a Notification of Compliance Status that includes each boiler or process heater before the close of business on the 60th day following the completion of the initial compliance demonstrations for all boiler or process heaters at the facility. The Notification of Compliance Status report must contain the following information: **(40 CFR 63.7545(e))**
   a. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with 40 CFR Part 63, Subpart DDDDD, description of the fuel(s) burned. **(40 CFR 63.7545(e)(1))**
   b. Certification(s) of compliance, as applicable, and signed by a responsible official: **(40 CFR 63.7545(e)(8))**
      i. "This facility complies with the required initial tune-up according to the procedures in 40 CFR 63.7540(a)(10)(i) through (vi)." **(40 CFR 63.7545(e)(8)(i))**

ii. "This facility has had an energy assessment performed according to 40 CFR 63.7530(e)." **(40 CFR 63.7545(e)(8)(ii))**

5. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to paragraph (h) of 40 CFR 63.7550, stated in SC VII.7, by the date in Table 9 of 40 CFR Part 63, Subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below. For units that are subject only to a requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.4.a, biennial tune-up according to 40 CFR 63.7540(a)(11), stated in SC IX.4.b, or 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.4.c, and not subject to emission limits or operating limits, the permittee may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below, instead of a semi-annual compliance report: **(40 CFR 63.7550(b))**
   a. When submitting an annual, biennial, or 5-year compliance report, the first compliance report must cover the period beginning on January 31, 2016 and ending on December 31 within 1, 2, or 5 years, as applicable, after the compliance date that is specified in 40 CFR 63.7495. **(40 CFR 63.7550(b)(1))**
   b. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(2), 40 CFR 63.7550(b)(5))**
   c. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31. **(40 CFR 63.7550(b)(3))**
   d. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(4), 40 CFR 63.7550(b)(5))**

6. 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))**
   f. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii)**

7. The permittee must submit the reports according to the procedures specified in paragraph (h)(3) of 40 CFR 63.7550, as listed below: **(40 CFR 63.7550(h))**
   a. The permittee must submit all reports required by Table 9 of 40 CFR Part 63, Subpart DDDDD electronically to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD. Instead of using the electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (*http://www.epa.gov/ttn/chief/cedri/index.html*), once the XML schema is available. If the reporting form specific to 40 CFR Part 63, Subpart DDDDD is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The permittee must begin submitting reports via CEDRI no later than 90-days after the form becomes available in CEDRI. **(40 CFR 63.7550(h)(3))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must comply with 40 CFR Part 63, Subpart DDDDD no later than January 31, 2016, 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))**

3. For affected sources (as defined in 40 CFR 63.7490) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, the permittee must complete a subsequent tune-up within 30 days of startup by following the procedures described in SC IX 4.a through 4.f. **(40 CFR 63.7515(g))**

4. The permittee must demonstrate continuous compliance with the tune-up requirement by completing the following: **(40 CFR 63.7540(a))**
   a. Inspect the burner, and clean or replace any components of the burner as necessary (the permittee may 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_x requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
   e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**
   f. Maintain on-site and submit, if requested by the Administrator, the most recent periodic report containing the information as listed below: **(40 CFR 63.7540(a)(10)(vi))**
      i. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
      ii. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**
      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))**

5. If the boiler or process heater has a heat input capacity of less than or equal to 5 million Btu per hour, the permittee may delay the burner inspection specified in SC IX 4.a 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))**

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

FGRULE285(2)(mm)
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

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

Emission Unit: EURULE285(2)(mm)

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

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

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

NA

VII. REPORTING

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

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

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

4. For venting of natural gas for routine maintenance or relocation of transmission and distribution systems in amounts greater than 1,000,000 standard cubic feet, the permittee shall notify the AQD District Supervisor prior to a scheduled pipeline venting. **(R 336.1285(2)(mm)(ii)(A))**

5. For venting of natural gas for routine maintenance or relocation of transmission and distribution systems in amounts greater than 1,000,000 standard cubic feet, the permittee shall provide necessary notification in accordance with the Michigan gas safety standards, the federal pipeline and hazardous materials safety administration standards, and the federal energy regulatory commission standards, as applicable. The permittee is not required to copy the AQD on the notifications. **(R 336.1285(2)(mm)(ii)(B))**

6. For emergency venting of natural gas in amounts greater than 1,000,000 standard cubic feet per event, the permittee shall notify the pollution emergency alert system (PEAS) within 24 hours of an emergency pipeline venting. For purposes of this requirement, an emergency is considered an unforeseen event that disrupts normal operating conditions and poses a threat to human life, health, property, or the environment if not controlled immediately. **(R 336.1285(2)(mm)(iv))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

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

IX. OTHER REQUIREMENT(S)

NA

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

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that 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. Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

AQD	Air Quality Division	MM	Million
acfm	Actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	MW	Megawatts
BTU	British Thermal Unit	NA	Not Applicable
°C	Degrees Celsius	NAAQS	National Ambient Air Quality Standards
CAA	Federal Clean Air Act	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NMOC	Non-methane Organic Compounds
CEM	Continuous Emission Monitoring	NOx	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	Carbon Monoxide	NSR	New Source Review
COM	Continuous Opacity Monitoring	PM	Particulate Matter
department	Michigan Department of Environmental Quality	PM-10	Particulate Matter less than 10 microns in diameter
dscf	Dry standard cubic foot	pph	Pound per hour
dscm	Dry standard cubic meter	ppm	Parts per million
EPA	United States Environmental Protection Agency	ppmv	Parts per million by volume
EU	Emission Unit	ppmw	Parts per million by weight
°F	Degrees Fahrenheit	PS	Performance Specification
FG	Flexible Group	PSD	Prevention of Significant Deterioration
GACS	Gallon of Applied Coating Solids	psia	Pounds per square inch absolute
GC	General Condition	psig	Pounds per square inch gauge
gr	Grains	PeTE	Permanent Total Enclosure
HAP	Hazardous Air Pollutant	PTI	Permit to Install
Hg	Mercury	RACT	Reasonable Available Control Technology
hr	Hour	ROP	Renewable Operating Permit
HP	Horsepower	SC	Special Condition
H_2S	Hydrogen Sulfide	scf	Standard cubic feet
HVLP	High Volume Low Pressure *	sec	Seconds
ID	Identification (Number)	SCR	Selective Catalytic Reduction
IRSL	Initial Risk Screening Level	SO_2	Sulfur Dioxide
ITSL	Initial Threshold Screening Level	SRN	State Registration Number
LAER	Lowest Achievable Emission Rate	TAC	Toxic Air Contaminant
lb	Pound	Temp	Temperature
m	Meter	THC	Total Hydrocarbons
MACT	Maximum Achievable Control Technology	tpy	Tons per year
MAERS	Michigan Air Emissions Reporting System	µg	Microgram
MAP	Malfunction Abatement Plan	VE	Visible Emissions
MDEQ	Michigan Department of Environmental Quality	VOC	Volatile Organic Compounds
mg	Milligram	yr	Year
mm	Millimeter		

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (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

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

Appendix 6. Permits to Install

At the time of permit issuance, no Permits to Install have been issued to this facility. Therefore, this appendix is not applicable.

Source-Wide PTI No MI-PTI-N5792-2012A is being reissued as Source-Wide PTI No. MI-PTI-N5792-2018.

Appendix 7. Emission Calculations

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

$$EL_{BTEX} = 5.44x10^{-5} * Throughput * C_{i,BTEX} * 365 \frac{days}{yr} * \frac{1\,Mg}{1x10^{6}\,grams} \quad \text{Equation 2}$$

Where:

EL_{BTEX} = Unit-specific BTEX emission limit, megagrams per year;

$5.44x10^{-5}$ = BTEX emission limit, grams BTEX/standard cubic meter-ppmv;

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

$C_{i,BTEX}$ = 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 Report Certification form (EQP 5736) and MDEQ 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.

EGLE

RENEWABLE OPERATING PERMIT RENEWAL APPLICATION FORM

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

GENERAL INSTRUCTIONS

This application form should be submitted as part of an administratively complete application package for renewal of a Renewable Operating Permit (ROP). This application form consists of nine parts. Parts A – H must be completed for all applications and must also be completed for each section of a sectioned ROP. Answer all questions in all parts of the form unless directed otherwise. Detailed instructions for this application form can be found at http://michigan.gov/air (select the Permits Tab, "Renewable Operating Permits (ROP)/Title V", then "ROP Forms & Templates").

PART A: GENERAL INFORMATION

Enter information about the source, owner, contact person and the responsible official.

SOURCE INFORMATION

SRN	SIC Code	NAICS Code	Existing ROP Number	Section Number (if applicable)
N5792	4922	486210	MI-ROP-N5792-2018	

Source Name
Consumers Energy Company – Overisel Compressor Station

Street Address
4131 138th Avenue

City	State	ZIP Code	County
Hamilton	MI	49419	Allegan

Section/Town/Range (if address not available)

Source Description
A natural gas compressor station. The primary function of the station is to move natural gas into and out of underground storage and along the intrastate pipeline system.

☐ Check here if any of the above information is different than what appears in the existing ROP. Identify any changes on the marked-up copy of your existing ROP.

OWNER INFORMATION

Owner Name	Section Number (if applicable)
Consumers Energy Company	

Mailing address (☐ check if same as source address)
One Energy Plaza

City	State	ZIP Code	County	Country
Jackson	MI	49201	Jackson	USA

☐ Check here if any information in this ROP renewal application is confidential. Confidential information should be identified on an Additional Information (AI-001) Form.

SRN: N5792	Section Number (if applicable):

PART A: GENERAL INFORMATION (continued)

At least one contact and responsible official must be identified. Additional contacts and responsible officials may be included if necessary.

CONTACT INFORMATION

Contact 1 Name			Title	
Amy Kapuga			Sr. Environmental Engineer	
Company Name & Mailing address (☐ check if same as source address)				
Consumers Energy Company, 1945 West Parnall Road, P22-330				
City	State	ZIP Code	County	Country
Jackson	MI	49201	Jackson	USA
Phone number		E-mail address		
517-788-2201		AMY.KAPUGA@CMSENERGY.COM		

Contact 2 Name (optional)			Title	
Company Name & Mailing address (☐ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

RESPONSIBLE OFFICIAL INFORMATION

Responsible Official 1 Name			Title	
Avelock Robinson			Director, Gas Compression Operations	
Company Name & Mailing address (☐ check if same as source address)				
Consumers Energy Company, St. Clair Compressor Station, 10021 Marine City Highway				
City	State	ZIP Code	County	Country
Ira Township	MI	48023	St. Clair	USA
Phone number		E-mail address		
586-716-3326		AVELOCK.ROBINSON@CMSENERGY.COM		

Responsible Official 2 Name (optional)			Title	
Company Name & Mailing address (☐ check if same as source address)				
City	State	ZIP Code	County	Country
Phone number		E-mail address		

☐ Check here if an AI-001 Form is attached to provide more information for Part A. Enter AI-001 Form ID:

SRN: N5792	Section Number (if applicable):

PART C: SOURCE REQUIREMENT INFORMATION

Answer the questions below for specific requirements or programs to which the source may be subject.

C1.	Actual emissions and associated data from **all** emission units with applicable requirements (including those identified in the existing ROP, Permits to Install and other equipment that have not yet been incorporated into the ROP) are required to be reported in MAERS. Are there any emissions and associated data that have not been reported in MAERS for the most recent emissions reporting year? If Yes, identify the emission unit(s) that was/were not reported in MAERS on an AI-001 Form. Applicable MAERS form(s) for unreported emission units must be included with this application.	☐ Yes ☒ No
C2.	Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)	☐ Yes ☒ No
C3.	Is this source subject to the federal Chemical Accident Prevention Provisions? (Section 112(r) of the Clean Air Act Amendments, 40 CFR Part 68)	☐ Yes ☒ No
	If Yes, a Risk Management Plan (RMP) and periodic updates must be submitted to the USEPA. Has an updated RMP been submitted to the USEPA?	☐ Yes ☒ No
C4.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NOx, PM10, PM2.5, SO_2, VOC, lead) emissions? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers, or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. If No, criteria pollutant potential emission calculations do not need to be included.	☒ Yes ☐ No
C5.	Has this stationary source **added or modified** equipment since the last ROP renewal that changes the PTE for hazardous air pollutants (HAPs) regulated by Section 112 of the federal Clean Air Act? If Yes, include potential emission calculations (or the PTI and/or ROP revision application numbers or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. Fugitive emissions must be included in HAP emission calculations. If No, HAP potential emission calculations do not need to be included.	☒ Yes ☐ No
C6.	Are any emission units subject to the Cross-State Air Pollution Rule (CSAPR)? If Yes, identify the specific emission unit(s) subject to CSAPR on an AI-001 Form.	☐ Yes ☒ No
C7.	Are any emission units subject to the federal Acid Rain Program? If Yes, identify the specific emission unit(s) subject to the federal Acid Rain Program on an AI-001 Form.	☐ Yes ☒ No
	Is an Acid Rain Permit Renewal Application included with this application?	☐ Yes ☒ No
C8.	Are any emission units identified in the existing ROP subject to compliance assurance monitoring (CAM)? If Yes, identify the specific emission unit(s) subject to CAM on an AI-001 Form. If a CAM plan has not been previously submitted to EGLE, one must be included with the ROP renewal application on an AI-001 Form. If the CAM Plan has been updated, include an updated copy.	☐ Yes ☒ No
	Is a CAM plan included with this application?	☐ Yes ☒ No
	If a CAM Plan is included, check the type of proposed monitoring included in the Plan:	
	1. Monitoring proposed by the source based on performance of the control device, or	☐
	2. Presumptively Acceptable Monitoring, if eligible	☐
C9.	Does the source have any plans such as a malfunction abatement plan, fugitive dust plan, operation/maintenance plan, or any other monitoring plan that is referenced in an existing ROP, Permit to Install requirement, or any other applicable requirement? If Yes, then a copy must be submitted as part of the ROP renewal application.	☒ Yes ☐ No
C10.	Are there any specific requirements that the source proposes to be identified in the ROP as non-applicable? If Yes, then a description of the requirement and justification must be submitted as part of the ROP renewal application on an AI-001 Form.	☐ Yes ☒ No
☒	Check here if an AI-001 Form is attached to provide more information for Part C. Enter AI-001 Form ID: **AI-**PARTC	

SRN: N5792	Section Number (if applicable):

PART B: APPLICATION SUBMITTAL and CERTIFICATION by Responsible Official

Identify the items that are included as part of your administratively complete application in the checklist below. For your application to be complete, it must include information necessary to evaluate the source and to determine all applicable requirements. Answer the compliance statements as they pertain to all the applicable requirements to which the source is subject. The source's Responsible Official must sign and date this form.

Listing of ROP Application Contents. Check the box for the items included with your application.

☒ Completed ROP Renewal Application Form (and any AI-001 Forms) (required)	☐ Compliance Plan/Schedule of Compliance
☒ Mark-up copy of existing ROP using official version from the AQD website (required)	☐ Stack information
☒ Copies of all Permit(s) to Install (PTIs) that have not been incorporated into existing ROP (required)	☐ Acid Rain Permit Initial/Renewal Application
☒ Criteria Pollutant/Hazardous Air Pollutant (HAP) Potential to Emit Calculations	☐ Cross-State Air Pollution Rule (CSAPR) Information
☐ MAERS Forms (to report emissions not previously submitted)	☐ Confidential Information
☐ Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP	☒ Paper copy of all documentation provided (required)
☐ Compliance Assurance Monitoring (CAM) Plan	☒ Electronic documents provided (optional)
☒ Other Plans (e.g., Malfunction Abatement, Fugitive Dust, Operation and Maintenance, etc.)	☐ Other, explain:

Compliance Statement

This source is in compliance with **all** of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP.	☒ Yes ☐ No
This source will continue to be in compliance with all of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP.	☒ Yes ☐ No
This source will meet in a timely manner applicable requirements that become effective during the permit term.	☒ Yes ☐ No

The method(s) used to determine compliance for each applicable requirement is/are the method(s) specified in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and all other applicable requirements not currently contained in the existing ROP.

If any of the above are checked No, identify the emission unit(s) or flexible group(s) affected and the specific condition number(s) or applicable requirement for which the source is or will be out of compliance at the time of issuance of the ROP renewal on an AI-001 Form. Provide a compliance plan and schedule of compliance on an AI-001 Form.

Name and Title of the Responsible Official (Print or Type)

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

Signature of Responsible Official

9. 20. 2022

Date

SRN: N5792	Section Number (if applicable):

PART D: PERMIT TO INSTALL (PTI) EXEMPT EMISSION UNIT INFORMATION

Review all emission units at the source and answer the question below.

D1. Does the source have any emission units that do not appear in the existing ROP but are required to be listed in the ROP application under R 336.1212(4) (Rule 212(4)) of the Michigan Air Pollution Control Rules? If Yes, identify the emission units in the table below. ☒ Yes ☐ No

If No, go to Part E.

Note: Emission units that are subject to process specific emission limitations or standards, even if identified in Rule 212, must be captured in either Part G or H of this application form. Identical emission units may be grouped (e.g. PTI exempt Storage Tanks).

Emission Unit ID	Emission Unit Description	Rule 212(4) Citation [e.g. Rule 212(4)(c)]	Rule 201 Exemption Rule Citation [e.g. Rule 282(2)(b)(i)]
EUHEATER1	75,000 Btu/hr Natural gas-fired furnace for building heat (Warehouse)	Rule 212(4)(b)	Rule 282(2)(b)(i)
EUSPACEHEATER1	150,000 Btu/hr natural gas-fired space heater (Warehouse)	Rule 212(4)(b)	Rule 282(2)(b)(i)
EUTANK7	8,000-gallon condensate/used TEG tank (Pipeline Fluids)	Rule 212(4)(d)	Rule 284(2)(i)
EUTANK8	8,000-gallon new TEG tank (Coolers)	Rule 212(4)(d)	Rule 284(2)(i)
EUTANK9	12,600-gallon natural gas condensate/brine tank (Pipeline Fluids)	Rule 212(4)(d)	Rule 284(2)(e)
EUTANK31	1,000-gallon condensate tank (Thermal Oxidizer)	Rule 212(4)(d)	Rule 284(2)(e)
EUTANK32	8,000-gallon TEG Tank (Coolers)	Rule 212(4)(d)	Rule 284(2)(i)

Comments:

☐ Check here if an AI-001 Form is attached to provide more information for Part D. Enter AI-001 Form ID: **AI-**

SRN: N5792	Section Number (if applicable):

PART E: EXISTING ROP INFORMATION

Review all emission units and applicable requirements (including any source wide requirements) in the existing ROP and answer the questions below as they pertain to **all** emission units and **all** applicable requirements in the existing ROP.

E1. Does the source propose to make any additions, changes or deletions to terms, conditions and underlying applicable requirements as they appear in the existing ROP? If Yes, identify changes and additions on Part F, Part G and/or Part H.	☒ Yes ☐ No
E2. For each emission unit(s) identified in the existing ROP, all stacks with applicable requirements are to be reported in MAERS. Are there any stacks with applicable requirements for emission unit(s) identified in the existing ROP that were not reported in the most recent MAERS reporting year? If Yes, identity the stack(s) that was/were not reported on applicable MAERS form(s).	☐ Yes ☒ No
E3. Have any emission units identified in the existing ROP been modified or reconstructed that required a PTI? If Yes, complete Part F with the appropriate information.	☐ Yes ☒ No
E4. Have any emission units identified in the existing ROP been dismantled? If Yes, identify the emission unit(s) and the dismantle date in the comment area below or on an AI-001 Form.	☒ Yes ☐ No

Comments:
EUDEGREASER was removed on 7/1/2021 (replaced with an aqueous-based parts washer (exempt per Rule 281(2)(k))
EUGLYCDEHY, including EUREBOILER-S, was dismantled (removed) on 3/31/2022.

☐ Check here if an AI-001 Form is attached to provide more information for Part E. Enter AI-001 Form ID: **AI-**

SRN: N5792	Section Number (if applicable):

PART F: PERMIT TO INSTALL (PTI) INFORMATION

Review all emission units and applicable requirements at the source and answer the following questions as they pertain to **all** emission units with PTIs. Any PTI(s) identified below must be attached to the application.

F1. Has the source obtained any PTIs where the applicable requirements from the PTI have not been incorporated into the existing ROP? If Yes, complete the following table. If No, go to Part G. ☒ Yes ☐ No

Permit to Install Number	Emission Units/ Flexible Group ID(s)	Description (*Include Process Equipment, Control Devices and Monitoring Devices*)	Date Emission Unit was Installed/ Modified/ Reconstructed
PTI 202-19	EUDEHY EUREBOILER_1 EUREBOILER_2	A small glycol dehydration system processing natural gas using triethylene glycol (TEG). System consists of two identical halves. Each half has two contact towers, a flash tank, a surge tank, a reboiler (EUREBOILER1 and EUREBOILER2), and a thermal oxidizer (SVTHERMOX_A and SVTHERMOX_B)	11/9/2021 (initial startup/first fire)

F2. Do any of the PTIs listed above change, add, or delete terms/conditions to **established emission units** in the existing ROP? If Yes, identify the emission unit(s) or flexible group(s) affected in the comments area below or on an AI-001 Form and identify all changes, additions, and deletions in a mark-up of the existing ROP. ☐ Yes ☒ No

F3. Do any of the PTIs listed above identify **new emission units** that need to be incorporated into the ROP? If Yes, submit the PTIs as part of the ROP renewal application on an AI-001 Form, and include the new emission unit(s) or flexible group(s) in the mark-up of the existing ROP. ☒ Yes ☐ No

F4. Are there any stacks with applicable requirements for emission unit(s) identified in the PTIs listed above that were not reported in MAERS for the most recent emissions reporting year? If Yes, identity the stack(s) that were not reported on the applicable MAERS form(s). ☒ Yes ☐ No

F5. Are there any proposed administrative changes to any of the emission unit names, descriptions or control devices in the PTIs listed above for any emission units not already incorporated into the ROP? If Yes, describe the changes on an AI-001 Form. ☐ Yes ☒ No

Comments:
SVTHERMOX_A
SVTHERMOX_B

☒ Check here if an AI-001 Form is attached to provide more information for Part F. Enter AI-001 Form ID: **AI-**PARTF

SRN: N5792	Section Number (if applicable):

PART G: EMISSION UNITS MEETING THE CRITERIA OF RULES 281(2)(h), 285(2)(r)(iv), 287(2)(c), OR 290

Review all emission units and applicable requirements at the source and answer the following questions.

G1. Does the source have any new and/or existing emission units which do not already appear in the existing ROP and which meet the criteria of Rules 281(2)(h), 285(2)(r)(iv), 287(2)(c), or 290.

If Yes, identify the emission units in the table below. If No, go to Part H. ☐ Yes ☒ No

Note: If several emission units were installed under the same rule above, provide a description of each and an installation/modification/reconstruction date for each.

Origin of Applicable Requirements	**Emission Unit Description – *Provide Emission Unit ID and a description of Process Equipment, Control Devices and Monitoring Devices***	**Date Emission Unit was Installed/ Modified/ Reconstructed**
☐ Rule 281(2)(h) or 285(2)(r)(iv) cleaning operation		
☐ Rule 287(2)(c) surface coating line		
☐ Rule 290 process with limited emissions		

Comments:

☐ Check here if an AI-001 Form is attached to provide more information for Part G. Enter AI-001 Form ID: **AI-**

SRN: N5792	Section Number (if applicable):

PART H: REQUIREMENTS FOR ADDITION OR CHANGE

Complete this part of the application form for all proposed additions, changes or deletions to the existing ROP. This includes state or federal regulations that the source is subject to and that must be incorporated into the ROP or other proposed changes to the existing ROP. **Do not include additions or changes that have already been identified in Parts F or G of this application form.** If additional space is needed copy and complete an additional Part H.

Complete a separate Part H for each emission unit with proposed additions and/or changes.

H1. Are there changes that need to be incorporated into the ROP that have not been identified in Parts F and G? If Yes, answer the questions below.	☒ Yes ☐ No
H2. Are there any proposed administrative changes to any of the existing emission unit names, descriptions or control devices in the ROP? If Yes, describe the changes in questions H8 – H16 below and in the affected Emission Unit Table(s) in the mark-up of the ROP.	☐ Yes ☒ No
H3. Does the source propose to add a new emission unit or flexible group to the ROP not previously identified in Parts F or G? If Yes, identify and describe the emission unit name, process description, control device(s), monitoring device(s) and applicable requirements in questions H8 – H16 below and in a new Emission Unit Table in the mark-up of the ROP. See instructions on how to incorporate a new emission unit/flexible group into the ROP.	☒ Yes ☐ No
H4. Does the source propose to add new state or federal regulations to the existing ROP? If Yes, on an AI-001 Form, identify each emission unit/flexible group that the new regulation applies to and identify each state or federal regulation that should be added. Also, describe the new requirements in questions H8 – H16 below and add the specific requirements to existing emission units/flexible groups in the mark-up of the ROP, create a new Emission Unit/Flexible Group Table, or add an AQD template table for the specific state or federal requirement.	☐ Yes ☒ No
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were not incorporated into the existing ROP? If Yes, list the CO/CJ number(s) below and add or change the conditions and underlying applicable requirements in the appropriate Emission Unit/Flexible Group Tables in the mark-up of the ROP.	☐ Yes ☒ No
H6. Does the source propose to add, change and/or delete **source-wide** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☒ No
H7. Are you proposing to **streamline** any requirements? If Yes, identify the streamlined and subsumed requirements and the EU ID, and provide a justification for streamlining the applicable requirement below.	☐ Yes ☒ No

SRN: N5792	Section Number (if applicable):

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H8. Does the source propose to add, change and/or delete **emission limit** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☒ Yes ☐ No

Delete requirements for EUGLYCDEHY (removed 3/31/2022)

Add Table for EUADMINGEN (emergency engine, ≤500 HP). Unit was installed and must meet the requirements of 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ (must meet requirements of ZZZZ by meeting the requirements of JJJJ – no further requirements apply for such engines under this part).

H9. Does the source propose to add, change and/or delete **material limit** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☒ Yes ☐ No

Delete requirements for EUDEGREASER1 (removed 7/1/2021)

Add EUREBOILER_1 and EUREBOILER_2 to FGBLRMACT Table

Add Table for EUADMINGEN (emergency engine, ≤500 HP). Unit was installed and must meet the requirements of 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ (must meet requirements of ZZZZ by meeting the requirements of JJJJ – no further requirements apply for such engines under this part).

H10. Does the source propose to add, change and/or delete **process/operational restriction** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☒ Yes ☐ No

Delete requirements for EUDEGREASER1 (removed 7/1/2021) and EUGLYCDEHY (removed 3/31/2022)

Add EUREBOILER_1 and EUREBOILER_2 to FGBLRMACT Table

Add Table for EUADMINGEN (emergency engine, ≤500 HP). Unit was installed and must meet the requirements of 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ (must meet requirements of ZZZZ by meeting the requirements of JJJJ – no further requirements apply for such engines under this part).

H11. Does the source propose to add, change and/or delete **design/equipment parameter** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☒ Yes ☐ No

Delete requirements for EUDEGREASER1 (removed 7/1/2021) and EUGLYCDEHY (removed 3/31/2022)

Add Table for EUADMINGEN (emergency engine, ≤500 HP). Unit was installed and must meet the requirements of 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ (must meet requirements of ZZZZ by meeting the requirements of JJJJ – no further requirements apply for such engines under this part).

H12. Does the source propose to add, change and/or delete **testing/sampling** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☒ Yes ☐ No

Delete requirements for EUGLYCDEHY (removed 3/31/2022)

Add Table for EUADMINGEN (emergency engine, ≤500 HP). Unit was installed and must meet the requirements of 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ (must meet requirements of ZZZZ by meeting the requirements of JJJJ – no further requirements apply for such engines under this part).

H13. Does the source propose to add, change and/or delete **monitoring/recordkeeping** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☒ Yes ☐ No

Delete requirements for EUDEGREASER1 (removed 7/1/2021) and EUGLYCDEHY (removed 3/31/2022)

Add EUREBOILER_1 and EUREBOILER_2 to FGBLRMACT Table

Add Table for EUADMINGEN (emergency engine, ≤500 HP). Unit was installed and must meet the requirements of 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ (must meet requirements of ZZZZ by meeting the requirements of JJJJ – no further requirements apply for such engines under this part).

H14. Does the source propose to add, change and/or delete **reporting** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. ☒ Yes ☐ No

Delete requirements for EUDEGREASER1 (removed 7/1/2021) and EUGLYCDEHY (removed 3/31/2022)

SRN: N5792	Section Number (if applicable):

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H15. Does the source propose to add, change and/or delete **stack/vent restrictions**? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☒ No
H16. Does the source propose to add, change and/or delete any **other** requirements? If Yes, identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below. Add Table for EUADMINGEN (emergency engine, ≤500 HP). Unit was installed and must meet the requirements of 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ (must meet requirements of ZZZZ by meeting the requirements of JJJJ – no further requirements apply for such engines under this part).	☒ Yes ☐ No
H17. Does the source propose to add terms and conditions for an alternative operating scenario or intra-facility trading of emissions? If Yes, identify the proposed conditions in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes ☒ No
☐ Check here if an AI-001 Form is attached to provide more information for Part H. Enter AI-001 Form ID: **AI-**	

EGLE

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

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

	SRN: N5792	Section Number (if applicable):

1. Additional Information ID
AI-PARTF

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

PTI No. 202-19

SV-101: Stack Form

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

June 11, 2020

PERMIT TO INSTALL
202-19

ISSUED TO
Consumers Energy Company – Overisel Compressor Station

LOCATED AT
4131 138th Avenue
Hamilton, Michigan 49419

IN THE COUNTY OF
Allegan

STATE REGISTRATION NUMBER
N5792

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **May 1, 2020**	
DATE PERMIT TO INSTALL APPROVED: **June 11, 2020**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

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

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO_2e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H_2S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO_x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO_2	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install 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 this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit 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 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. 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 Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department 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 condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

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

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. 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). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT SPECIAL CONDITIONS

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
EUDEHYEUDEHY	A small glycol dehydration system processing natural gas using triethylene glycol (TEG). Systems consists of two identical halves. Each half has two contact towers, a flash tank, a surge tank, a reboiler, and a thermal oxidizer. This unit is subject to 40 CFR Part 63 Subpart HHH.	TBA	FGMACTHHHSMALL

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

EUDEHY
EMISSION UNIT CONDITIONS

DESCRIPTION

A small glycol dehydration system processing natural gas using triethylene glycol (TEG). Systems consists of two identical halves. Each half has two contact towers, a flash tank, a surge tank, a reboiler, and a thermal oxidizer. This unit is subject to 40 CFR Part 63 Subpart HHH.

Flexible Group ID: FGMACTHHHSMALL

POLLUTION CONTROL EQUIPMENT

Thermal Oxidizers

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	3.37 tpy	12-month rolling time period as determined at the end of each calendar month	EUDEHY	SC VI.2	R 336.1205, R 336.1225, R 336.1702(a)

II. MATERIAL LIMIT(S)

1. The permittee shall not use stripping gas in EUDEHY. **(R 336.1205, R 336.1225, R 336.1702(a))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The glycol recirculation rate for EUDEHY shall not exceed a maximum of 24 gallons per minute. **(R 336.1205, R 336.1225, R 336.1702(a))**

2. The permittee shall not operate EUDEHY unless a minimum temperature of 1400°F and a minimum retention time of 1 seconds in the thermal oxidizers are maintained. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

3. At least 60 days prior to startup, the permittee shall submit to the AQD District Supervisor, for review and approval, a preventative maintenance / malfunction abatement plan (PM / MAP) for EUDEHY. After approval of the PM / MAP by the AQD District Supervisor, the permittee shall not operate EUDEHY unless the PM / MAP, or an alternate plan approved by the AQD District Supervisor, is implemented, and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. At a minimum, the plan shall include:
   a) Identification of the equipment and, if applicable, air-cleaning device and the supervisory personnel responsible for overseeing the inspection, maintenance, and repair.
   b) Description of the items or conditions to be inspected and frequency of the inspections or repairs.
   c) Identification of the equipment and if applicable, air-cleaning device, operating parameters that shall be monitored to detect a malfunction or failure, the normal operating range of these parameters and a description of the method of monitoring or surveillance procedures.
   d) Identification of the major replacement parts that shall be maintained in inventory for quick replacement.
   e) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If the plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the plan within 45 days after such an event occurs and submit the revised plan for approval to the AQD District Supervisor. Should the AQD determine the PM / MAP to be inadequate, the AQD District Supervisor may request modification of the plan to address those inadequacies. **(R 336.1205, R 336.1702(a), R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUDEHY unless the flash tanks are installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes routing the flash tank exhaust gas to a reboiler as burner fuel or to a thermal oxidizer for destruction. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

2. The permittee shall not operate in EUDEHY unless the thermal oxidizers are installed, maintained and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizers includes a minimum VOC destruction efficiency of 98 percent (by weight), maintaining a minimum temperature of 1400°F, and a minimum retention time of 1 second. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor continuously and record the glycol recirculation rate of EUDEHY on an hourly basis. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910, R 336.2802, 40 CFR 52.21)**

4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor continuously and record the temperature of the combustion chamber of the thermal oxidizers on an hourly basis. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. At least once each calendar year, the permittee shall obtain, by sampling, an analysis of the wet gas stream. The permittee shall analyze the sample for nitrogen, carbon dioxide, hydrogen sulfide, C1 through C6 series hydrocarbons, benzene, toluene, xylene, ethylbenzene, and heptanes plus. The permittee must submit any request for a change in the sampling frequency to the AQD District Supervisor for review and approval. **(R 336.1205, R 336.1225, R 336.1702(a))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1225, R 336.1702(a))**

2. The permittee shall calculate the VOC emission rates from EUDEHY for each calendar month and 12-month rolling time period, using a method acceptable to the AQD District Supervisor. If GRI-GLYCalc (Version 3.0 or higher) is used to calculate the emission rates, the inputs to the model shall be representative of actual operating conditions of EUDEHY and shall include the most recent gas analysis data. The permittee must submit any request for a change in the calculation frequency to the AQD District Supervisor for review and approval. The permittee shall keep records of VOC emission rates on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a))**

3. The permittee shall keep, in a satisfactory manner, hourly and daily records of the glycol recirculation rate for EUDEHY, as required by SC III.1 and SC IV.4. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

4. The permittee shall keep, in a satisfactory manner, hourly and daily records of the combustion zone temperature of the thermal oxidizer, while processing natural gas, as required by SC III.2 and SC IV.4. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910)**

5. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period hours of operation, for EUDEHY as required by SC IV.4. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1702(a))**

6. The permittee shall keep, in a satisfactory manner, records of the wet gas composition as determined through analysis of wet gas samples for EUDEHY, as required by SC V.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVTHERMOX_A	24	60	R 336.1225
2. SVTHERMOX_B	24	60	R 336.1225

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart HHH: Natural Gas Transmission and Storage Facilities. **(40 CFR Part 63 Subpart HHH)**

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

FLEXIBLE GROUP SPECIAL CONDITIONS

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
FGMACTHHHSMALL	Requirements for new small glycol dehydrators (<0.9 Mg/yr benzene emissions) at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart HHH.	EUDEHY

FGMACTHHHSMALL
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Requirements for new small glycol dehydrators (<0.9 Mg/yr benzene emissions) at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart HHH.

Emission Unit: EUDEHY

POLLUTION CONTROL EQUIPMENT

Thermal Oxidizers

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. BTEX	Calculated using Equation 2 of 40 CFR Part 63 Subpart HHH (Appendix A)	Annual	EUDEHY	SC V.2, SC V.4, SC V.5	40 CFR 63.1275(b)(1)(iii)
2. Benzene	<0.9 Mg/yr	Annual	EUDEHY	SC V.2	40 CFR 63.1275(b)(1)(iii)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The process vent from each glycol dehydration unit shall be vented to a control device or a combination of control devices through a closed-vent system except when the permittee is following the requirements of 40 CFR 1275(c) (SC III.6). **(40 CFR 63.1275(b)(1)(iii)(A), 40 CFR 63.1275(c))**

2. The control device(s) used to meet the BTEX emission limit calculated in 40 CFR 63.1275(b)(1)(iii) (SC I.1), 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) An enclosed combustion device (e.g. thermal oxidizer) that has been determined, in accordance with the requirements of 40 CFR 63.1282(d), to reduce the mass content of BTEX in the gases vented to the device to meet the emission limit calculated in 40 CFR 63.1275(b)(1)(iii) (SC I.1). (40 CFR 63.1281(f)(1)(i)(A)) OR
   b) An enclosed combustion device (e.g. thermal oxidizer) that has been determined, in accordance with the requirements of 40 CFR 63.1282(e), to reduce the TOC or total HAP concentration in the exhaust gases at the outlet of the incinerator to a level equal to or less than 20 ppmv on a dry basis corrected to three percent oxygen. **(40 CFR 63.1281(f)(1)(i)(B))**

3. 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 this subpart shall be operating at all times. More than one unit may be vented to a control device. **(40 CFR 63.1281(f)(2)(i))**

b) For each control device monitored in accordance with requirements of 40 CFR 63.1283(d) (SC IV.2, SC VI. 11-19), the permittee shall demonstrate compliance according to the requirements of 40 CFR 63.1282(e) or (h). **(40 CFR 63.1281(f)(2)(ii))**

4. At all times, the permittee must operate and maintain each glycol dehydrator, 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 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 the source. **(40 CFR 63.1274(h))**

5. In all cases where the provisions of 40 CFR 63 Subpart HHH require the permittee to repair leaks by a specified time after the leak is detected, it is a violation of 40 CFR 63 Subpart HHH to fail to take action to repair the leak(s) within the specified time. If action is taken to repair the leak(s) within the specified time, failure of that action to successfully repair the leak(s) is not a violation of this standard. However, if the repairs are unsuccessful, and a leak is detected, the permittee shall take further action as required by the applicable provisions of this subpart. **(40 CFR 63.1274(g))**

6. As an alternative to the requirements of paragraph 40 CFR 63.1275(b), the permittee may comply with one of the following: **(40 CFR 63.1275(c))**
   a) The permittee shall control air emissions by connecting the process vent to a process natural gas line. **(40 CFR 63.1275(c)(1))**
   b) Control of HAP emissions from a GCG separator (flash tank) vent is not required if the permittee demonstrates, to the Administrator's satisfaction, that total emissions to the atmosphere from the glycol dehydration unit process vent are reduced by one of the levels specified in paragraph 40 CFR 63.1275(c)(3)(i) through (iv) through the installation and operation of controls as specified in paragraph 40 CFR 63.1275(b)(1). **(40 CFR 63.1275(c)(3))**
      i. For each new small glycol dehydration unit, BTEX emissions are reduced to a level less than the limit calculated in Equation 2 of paragraph 40 CFR 63.1275(b)(1)(iii) (SC I.1). **(40 CFR 63.1275(c)(3)(iv))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. A continuous parameter monitoring system (CPMS) shall be installed and operated to 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.
      ii. Each block average value for each one-hour period or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values.

2. The permittee shall install, calibrate, operate, and maintain a device equipped with a continuous recorder to measure the values of operating parameters appropriate for the control device as specified below. **(40 CFR 63.1283(d)(3))**
   a) For a thermal oxidizer, the temperature monitoring device shall have a minimum accuracy of ±2 percent of the temperature being monitored in °C, or ±2.5°C, whichever value is greater. The temperature sensor shall be installed at a location representative of the combustion zone temperature.

3. The permittee shall not operate the glycol dehydration unit unless each process vent is connected to a control device or combination of control devices through a closed-vent system. The closed vent system shall be designed and operated in accordance with the following requirements: **(40 CFR 63.1274(c), 40 CFR 63.1275(b)(1)(iii)(A), 40 CFR 63.1275(c), 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 40 CFR 63.1281(f). **(40 CFR 63.1281(c)(1))**
   b) The closed-vent system shall be designed and operated with no detectable emissions. **(40 CFR 63.1281(c)(2))**

c) For each bypass device in the closed-vent system that could divert all or a portion of the gases, vapors, or fumes from entering the control device, the permittee shall either: **(40 CFR 63.1281(c)(3)(i))**
   i. At the inlet to the bypass device that could divert the stream away from the control device to the atmosphere, properly install, calibrate, maintain, and operate a flow indicator that is capable of taking periodic readings and sounding an alarm when the bypass device is open such that the stream is being, or could be, diverted away from the control device to the atmosphere; or
   ii. Secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or lock-and-key type configuration.

d) Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of 40 CFR 63.1281(c)(3)(i), SC IV.3(c). **(40 CFR 63.1281(c)(3)(ii))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Determination of the actual flow rate of natural gas to each glycol dehydration unit 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 each glycol dehydration unit with an accuracy of plus or minus 2 percent or better. The permittee shall convert the annual natural gas flowrate to a daily average by dividing the annual flowrate by the number of days per year the glycol dehydration unit processed natural gas; or
   b) Document to the AQD's satisfaction, the actual annual average natural gas flow rate to each glycol dehydration unit.

2. Determination of actual average benzene or BTEX emissions from each glycol dehydration unit shall be made using the procedures of either 40 CFR 63.1282(a)(2) (i) or (ii) below. Emissions shall be determined either uncontrolled or with federally enforceable controls in place. **(40 CFR 63.1282(a)(2))**
   a) The permittee shall determine actual average benzene or BTEX emissions using the model GRI-GLYCalcTM, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalcTM 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). **(40 CFR 63.1282(a)(2)(i))**
   b) The permittee shall determine an average mass rate of benzene or BTEX emissions in kilograms per hour through direct measurement by performing three runs of Method 18 in 40 CFR part 60, appendix A; or ASTM D6420-99 (Reapproved 2004) (incorporated by reference as specified in §63.14), as specified in §63.772(a)(1)(ii); 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. (40 CFR 63.1282(a)(2)(ii))

3. 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))**

4. The permittee shall demonstrate that the thermal oxidizers meet the requirements of 40 CFR 1281(f)(1) (SC IV.2) by conducting a performance test in accordance with the following test methods and procedures: **(40 CFR 63.1282(c)(1), 40 CFR 63.1282(d)(3))**
   a) Method 1 or 1A, 40 CFR, Part 60, Appendix A, as appropriate, shall be used for selection of the sampling sites. The sampling site shall be located at the outlet of the combustion device. **(40 CFR 63.1282(d)(3)(i))**
   b) The gas volumetric flowrate shall be determined using Method 2, 2A, 2C, or 2D, 40 CFR, Part 60, Appendix A, as appropriate. **(40 CFR 63.1282(d)(3)(ii))**
   c) To determine compliance with the BTEX emission limit in SC I.1, the permittee shall use one of the following methods: Method 18, 40 CFR part 60, appendix A; ASTM D6420-99 (Reapproved 2004) (incorporated by reference as specified in 40 CFR 63.14), as specified in 40 CFR 63.772(a)(1)(ii); or any other method or data that have been validated according to the applicable procedures in Method 301, 40 CFR part 63, appendix A. The BTEX emissions shall be calculated using the procedures in 40 CFR 63.1282(d)(3)(v). **(40 CFR 63.1282(d)(3)(v))**
   d) The permittee shall conduct performance tests according to the following schedule: **(40 CFR 63.1282(d)(3)(vi))**
      i. An initial performance test shall be conducted no later than 180 days after startup.

ii. Except as specified in 40 CFR 63.1282(e)(3)(vi)(B)(1) and (2) below, periodic performance tests shall be conducted for all control devices required to conduct initial performance tests. The first periodic performance test shall be conducted no later than 60 months after the initial performance test required in 40 CFR 63.1282(d)(3)(vi)(A) (SC V.4(d)(i). 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 the criteria in either 40 CFR 63.1282(d)(3)(vi)(B)(1) and (2) below are not required to conduct periodic performance tests:
   A. A combustion control device whose model is tested under, and meets the criteria of, the manufacturers performance testing in 40 CFR 63.1282(g).
   B. A combustion control device demonstrating during the performance test under 40 CFR 63.1282(d) that combustion zone temperature is an indicator of destruction efficiency and operates at a minimum temperature of 1400 degrees Fahrenheit.

5. As an alternative to conducting a performance test under 40 CFR 63.1282(d)(3), the permittee may use a control device that can be demonstrated to meet the performance requirements of 40 CFR 63.1281(f)(1) through a performance test conducted by the manufacturer, as specified in 40 CFR 63.1282(g). **(40 CFR 63.1282(d))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall maintain records of the annual facility natural gas throughput each year. **(40 CFR 63.1270(a)(3))**

2. The permittee shall comply with the requirements below in order to show compliance with 40 CFR 63.1281(f)(1)(i)(B): **(40 CFR 63.1281(f)(1)(i)(B), 40 CFR 63.1282(e))**
   a) Establish a site-specific minimum monitoring parameter value according to the requirements of §63.1283(d)(5)(i) (SC VI.16).
   b) Calculate the daily average of the applicable monitored parameter in accordance with §63.1283(d)(4) (SC VI.15) except that the inlet gas flowrate to the control device shall not be averaged.
   c) Compliance is achieved when the daily average of the monitoring parameter value calculated under paragraph 40 CFR 63.1282(e)(2) of this section is equal to or greater than the minimum monitoring value established under paragraph 40 CFR 63.1282(e)(1) of this section. For inlet gas flowrate, compliance with the operating parameter limit is achieved when the value is equal to or less than the value established under the performance test conducted under 40 CFR 63.1282(d) (SC V.4), as applicable.

3. The permittee shall operate the CPMS at all times when the glycol dehydration system is operating except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits and required zero and span adjustments). A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. Monitoring system repairs are required to be completed in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. **(40 CFR 63.1282(e)(4))**

4. Data recorded during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities may not be used in calculations used to report emissions or operating levels. All the data collected during all other required data collection periods must be used in assessing the operation of the control device and associated control system. **(40 CFR 63.1282(e)(5))**

5. Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required quality monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements. **(40 CFR 63.1282(e)(6))**

6. Except as provided in paragraphs 40 CFR 63.1283(c)(5) and (6), stated in SC VI.9 and SC VI.10, the permittee shall inspect each closed-vent system and each bypass device according to the procedures and schedule specified below: **(40 CFR 63.1274(c), 40 CFR 63.1283(c)(2))**
   a) 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) the permittee shall: **(40 CFR 63.1283(c)(2)(i))**
      i. Conduct an initial inspection according to 40 CFR 63.1282(b) to demonstrate that the closed-vent system operates with no detectable emissions.
      ii. 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.
   b) For closed-vent system components other than those specified in 40 CFR 63.1283(c)(2)(i) (SC VI.6(a)), the permittee shall: **(40 CFR 63.1283(c)(2)(ii))**
      i. Conduct an initial inspection to demonstrate that the closed-vent system operates with no detectable emissions.
      ii. Conduct annual inspections to demonstrate that the components or connections operate with no detectable emissions.
      iii. 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.
   c) 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:**(40 CFR 63.1283(c)(2)(iii))**
      i. 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
      ii. 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.

7. 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 40 CFR 63.1283(c)(4) (SC VI.8): **(40 CFR 63.1274(c), 40 CFR 63.1283(c)(3))**
   a) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
   b) Repair shall be completed no later than 15 calendar days after the leak is detected.

8. 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. **(40 CFR 63.1274(c), 40 CFR 63.1283(c)(4))**

9. Any parts of the closed-vent system that are designated, as described below, as unsafe to inspect are exempt from the inspection requirements of 40 CFR 63.1283(c)(2)(i) and (ii) (SC VI.6(a) and (b)): **(40 CFR 63.1274(c), 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 40 CFR 63.1283(c)(2)(i) and (ii) (SC VI.6(a) and (b)).
   b) The permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

10. Any parts of the closed-vent system that are designated, as described below, as difficult to inspect are exempt from the inspection requirements of 40 CFR 63.1283(c)(2)(i) and (ii) (SC VI.6(a) and (b)): **(40 CFR 63.1274(c), 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.

11. A site-specific monitoring plan must be prepared that addresses the monitoring system design, data collection, and the quality assurance and quality control elements below. Each CPMS must be installed, calibrated, operated, and maintained in accordance with the procedures in the site-specific monitoring plan: **(40 CFR 63.1274(c), 40 CFR 63.1283(d)(1)(ii))**
    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 (c)(3).
    e) Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR 63.10(c), (e)(1), and (e)(2)(i).

12. Using the process described in 40 CFR 63.8(f)(4), the permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in 40 CFR 63.1283(d)(1)(ii)(A)-(E), SC VI.11(a)-(e), in the site-specific monitoring plan. **(40 CFR 63.1274(c), 40 CFR 63.1283(d)(1)(ii))**

13. The permittee shall 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. **(40 CFR 63.1274(c), 40 CFR 63.1283(d)(1)(iii))**

14. The permittee shall conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan. **(40 CFR 63.1274(c), 40 CFR 63.1283(d)(1)(iv))**

15. Using the data recorded by the monitoring system, except for inlet gas flowrate, the permittee shall 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 percent of the operating hours in an operating day to compute the daily average. **(40 CFR 63.1283(d)(4))**

16. 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 applicable performance requirements specified in 40 CFR 63.1281(f)(1) (SC III.2). Each minimum or maximum operating parameter value shall be established as follows: **(40 CFR 63.1282(e)(1), 40 CFR 63.1283(d)(5)(i))**
    a) If the permittee operates a control device where the performance test requirement was met under §63.1282(g) to demonstrate that the control device achieves the applicable performance requirements specified in 40 CFR 63.1281(f)(1) (SC III.2)), then the maximum inlet gas flowrate shall be established based on the performance test and supplemented, as necessary, by the manufacturer recommendations.

17. An excursion 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 63.1274(c), 40 CFR 63.1283(d)(6))**
    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; **(40 CFR 63.1283(d)(6)(i))**
    b) When the monitoring data are not available for at least 75 percent of the operating hours in a day; **(40 CFR 63.1283(d)(6)(iii))**
    c) For control device whose model is tested under 40 CFR 63.1282(g) an excursion occurs when:
        i. The inlet gas flowrate exceeds the maximum established during the test conducted under 40 CFR 63.1282(g).

ii. Failure of the quarterly visible emissions test conducted under 40 CFR 63.1282(h)(3) occurs.

d) An excursion 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))**
   i. The flow indicator indicates that flow has been detected and that the stream has been diverted away from the control device to the atmosphere; **(40 CFR 63.1283(d)(6)(iv)(A))**
   ii. 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. **(40 CFR 63.1283(d)(6)(iv)(B))**

18. For each excursion, 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 63.1274(c), 40 CFR 63.1283(d)(7))**

19. Nothing in 40 CFR 63.1283(d)(1) through (d)(8) 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 63.1274(c), 40 CFR 63.1283(d)(9))**

20. The permittee shall maintain files of all information (including all reports and notifications) required by this 40 CFR 63 Subpart HHH. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or period. **(40 CFR 63.1284(b)(1))**
    a) All applicable records shall be maintained in such a manner that they can be readily accessed.
    b) The most recent 12 months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request.
    c) The remaining 4 years of records may be retained offsite.
    d) Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

21. The permittee shall maintain the records specified in 40 CFR 63.10(b)(2). **(40 CFR 63.1284(b)(2))**

22. The permittee shall maintain records specified in 40 CFR 63.10(c) for each monitoring system in accordance with the requirements of 40 CFR 63.1283(d) (SC IV.2, SC VI. 11-19). Notwithstanding the previous sentence, monitoring data recorded during periods identified in paragraphs 40 CFR 63.1284(b)(3)(i) through (iv) below, shall not be included in any average or percent leak rate computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device operation when monitors are not operating or failed to collect required data. **(40 CFR 63.1284(b)(3))**
    a) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments.
    b) Periods of non-operation resulting in cessation of the emissions to which the monitoring applies.
    c) Excursions due to invalid data as defined in §63.1283(d)(6)(iii) (SC VI.17(c)).

23. The permittee shall keep the following records up-to-date and readily accessible: **(40 CFR 63.1284(b)(4), 40 CFR 63.1284(g), 40 CFR 63.1284(h))**
    a) Continuous records of the equipment operating parameters specified to be monitored under §63.1283(d) or specified by the Administrator in accordance with §63.1283(d)(3)(iii). **(40 CFR 63.1284(b)(4)(i))**
    b) Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in §63.1283(d)(4) except as specified in paragraphs 40 CFR 63.1284(b)(4)(ii)(A) through (C).
    c) 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. **(40 CFR 63.1284(b)(4)(iii))**
    d) Where a seal or closure mechanism is used to comply with §63.1281(c)(3)(i)(B), 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. **(40 CFR 63.1284(b)(4)(iv))**

24. The permittee shall maintain records identifying all parts of the closed-vent system that are designated as unsafe to inspect in accordance with §63.1283(c)(5) (SC VI.9), an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment. **(40 CFR 63.1283(c)(7), 40 CFR 63.1284(b)(5))**

25. The permittee shall maintain records identifying all parts of the closed-vent system that are designated as difficult to inspect in accordance with §63.1283(c)(6) (SC VI.10), an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment. **(40 CFR 63.1283(c)(7), 40 CFR 63.1284(b)(6))**

26. The permittee shall maintain the following records for each inspection conducted during which a leak or defect is detected: **(40 CFR 63.1283(c)(7), 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 §63.1282(b) after the leak or defect is successfully repaired or determined to be nonrepairable.
    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 owner or operator (or designee) whose decision it was that repair could not be effected 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.

27. For each inspection conducted in accordance with §63.1283(c) (SC VI.6-10) 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 63.1283(c)(7), 40 CFR 63.1284(b)(8))**

28. The permittee shall maintain records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control equipment and monitoring equipment. The owner or operator shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with §63.1274(h) (SC III.4), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. **(40 CFR 63.1274(c), 40 CFR 63.1284(f))**

VII. REPORTING

1. 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))**

2. The permittee shall submit a Notification of Compliance Status Report as required under 40 CFR 63.9(h) within 180 days after startup. In addition to the information required under 40 CFR 63.9(h) the Notification of Compliance Status Report shall include the information specified below. If an owner or operator submits the required information at different times, and/or different submittals, subsequent submittals may refer to previous submittals instead of duplicating and resubmitting the previously submitted information. **(40 CFR 63.1285(b)(4), 40 CFR 63.1285(d))**
    a) If a closed-vent system and a control device other than a flare are used to comply with 40 CFR 63.1274, the owner or operator shall submit the information in 40 CFR 63.1285(d)(1)(iii), SC VII.2(a)(iii), and the information in either 40 CFR 63.1285(d)(1)(i) or (ii), SC VII.2(a)(i) or (ii). **(40 CFR 63.1285(d)(1))**
        i. If the owner or operator is required to conduct a performance test, the performance test results including the information specified in 40 CFR 63.1285(d)(1)(ii)(A) and (B) below. Results of a performance test conducted prior to the compliance date of this subpart can be used provided that the test was conducted using the methods specified in 40 CFR 63.1282(d)(3) (SC V.4), and that the test conditions are representative of current operating conditions. If the owner or operator operates a combustion control device model tested under 40 CFR 63.1282(g), an electronic copy of the performance test results shall be submitted via email to Oil_and_Gas_PT@EPA.GOV unless the test results for that model of combustion control device are posted at the following Web site: epa.gov/airquality/oilandgas/. **(40 CFR 63.1285(d)(1)(ii))**

A. The percent reduction of HAP or TOC, or the outlet concentration of HAP or TOC (parts per million by volume on a dry basis), determined as specified in 40 CFR 63.1282(d)(3) (SC V.4).
B. The value of the monitored parameters specified in 40 CFR 63.1283(d), or a site-specific parameter approved by the permitting agency, averaged over the full period of the performance test.

ii. The results of the closed-vent system initial inspections performed according to the requirements in 40 CFR 63.1283(c)(2)(i) and (ii) (SC VI.6(a) and (b)). **(40 CFR 63.1285(d)(1)(iii)**

b) The permittee shall submit one complete test report for each test method used for a particular source. **(40 CFR 63.1285(d)(3))**
   i. For additional tests performed using the same test method, the results specified in 40 CFR 63.1285(d)(3)(ii), SC VII.2(a)(ii), shall be submitted, but a complete test report is not required. **(40 CFR 63.1285(d)(3)(i))**
   ii. A complete test report shall include a sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method. **(40 CFR 63.1285(d)(3)(ii))**

c) For each control device other than a flare used to meet the requirements of 40 CFR 63.1274, the permittee shall submit the information specified in 40 CFR 63.1285(d)(4)(i)-(iv), as applicable, below for each operating parameter required to be monitored in accordance with the requirements of 40 CFR 63.1283(d). **(40 CFR 63.1285(d)(4))**
   i. The minimum operating parameter value or maximum operating parameter value, as appropriate for the control device, established by the owner or operator to define the conditions at which the control device must be operated to continuously achieve the applicable performance requirements of 40 CFR 63.1281(e)(3)(ii). **(40 CFR 63.1285(d)(4)(i))**
   ii. An explanation of the rationale for why the permittee selected each of the operating parameter values established in 40 CFR 63.1283(d)(5) (SC VI.16). This explanation shall include any data and calculations used to develop the value, and a description of why the chosen value indicates that the control device is operating in accordance with the applicable requirements of 40 CFR 63.1281(e)(3)(ii) or (f)(1).**(40 CFR 63.1285(d)(4)(ii))**
   iii. A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends. **(40 CFR 63.1285(d)(4)(iii))**

d) Results of any continuous monitoring system performance evaluations shall be included in the Notification of Compliance Status Report. **(40 CFR 63.1285(d)(5))**

e) The permittee shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under 40 CFR, Part 63, Subpart HHH. Each time a notification of compliance status is required under this subpart, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in this subpart. **(40 CFR 63.1285(d)(6))**

f) The permittee shall submit an analysis demonstrating whether an affected source is a major source using the maximum throughput calculated according to 40 CFR 63.1270(a). **(40 CFR 63.1285(d)(8))**

g) The permittee shall submit a statement as to whether the source has complied with the requirements of this subpart. **(40 CFR 63.1285(d)(9))**

h) If the permittee installs a combustion control device model tested under the manufacturer's performance test procedures in 40 CFR 63.1282(g), the Notification of Compliance Status Report shall include the data listed under 40 CFR 63.1282(g)(8). **(40 CFR 63.1285(d)(11)**

i) For each combustion control device model tested under 40 CFR 63.1282(g), the information listed in 40 CFR 63.1285(d)(12)(i)-(vi) below: **(40 CFR 63.1285(d)(12))**
   i. Name, address, and telephone number of the control device manufacturer.
   ii. Control device model number.
   iii. Control device serial number.
   iv. Date the model of control device was tested by the manufacturer.
   v. Manufacturer's HAP destruction efficiency rating.
   vi. Control device operating parameters, maximum allowable inlet gas flowrate.

3. The permittee shall prepare Periodic Reports in accordance with 40 CFR 63.1285(e)(1) and (2) below and submit them to the Administrator. **(40 CFR 63.1285(e))**
   a) An owner or operator shall submit Periodic Reports semiannually beginning 60 calendar days after the end of the applicable reporting period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status Report is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status Report is due. **(40 CFR 63.1285(e)(1))**
   b) The permittee shall include the following information and any other information as applicable in 40 CFR 63.1285(e)(2). **(40 CFR 63.1285(e)(2))**
      i. The information required under 40 CFR 63.10(e)(3). For the purposes of this subpart and the information required under 40 CFR 63.10(e)(3), excursions (as defined in 40 CFR63.1283(d)(6)) shall be considered excess emissions. **(40 CFR 63.1285(e)(2)(i))**
      ii. A description of all excursions as defined in 40 CFR 63.1283(d)(6) (SC VI.17) that have occurred during the 6-month reporting period, and the information described below. **(40 CFR 63.1285(e)(2)(ii))**
         A. For each excursion caused 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), as specified in §63.1283(d)(6)(i), the report must include the daily average values of the monitored parameter, the applicable operating parameter limit, and the date and duration of the period that the excursion occurred.
         B. For each excursion caused by lack of monitoring data, as specified in §63.1283(d)(6)(iii), the report must include the date and duration of period when the monitoring data were not collected and the reason why the data were not collected.
         C. For each excursion caused when the maximum inlet gas flowrate identified under §63.1282(g) is exceeded, the report must include the values of the inlet gas identified and the date and duration of the period that the excursion occurred.
         D. For each excursion caused when visible emissions determined under §63.1282(h) exceed the maximum allowable duration, the report must include the date and duration of the period that the excursion occurred, repairs affected to the unit, and date the unit was returned to service.
      iii. For each inspection conducted in accordance with 40 CFR 63.1283(c) during which a leak or defect is detected, the records described in condition 40 CFR 63.1284(b)(7) must be included in the next Periodic Report. **(40 CFR 63.1285(e)(2)(iii))**
      iv. For each closed-vent system with a bypass line subject to 40 CFR 63.1281(c)(3)(i)(A) or (B), records required under 40 CFR 63.1284(b)(4)(iii) or (iv) respectively. **(40 CFR 63.1285(e)(2)(iv))**
      v. The information below section shall be stated in the Periodic Report, when applicable. **(40 CFR 63.1285(e)(2)(vi))**
         A. A statement identifying there were no excursions during the reporting period if applicable. **(40 CFR 63.1285(e)(2)(vi)(A))**
         B. A statement identifying no continuous monitoring system has been inoperative, out of control, repaired, or adjusted if applicable. **(40 CFR 63.1285(e)(2)(vi)(B))**
      vi. Any change in compliance methods as described in 40 CFR 63.1282(e). **(40 CFR 63.1285(e)(2)(vii))**
      vii. The results of any periodic test as required in 40 CFR63.1282(d)(3) conducted during the reporting period. **(40 CFR 63.1285(e)(2)(x))**
      viii. For combustion control device inspections conducted in accordance with 63.1283(b) for control devices complying with the manufacturer's performance testing, the records specified in 40 CFR 63.1284(h). **(40 CFR 63.1285(e)(2)(xii))**
      ix. Certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(40 CFR 63.1285(e)(2)(xiii))**

4. Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the permittee shall submit a report within 180 days after the process change is made or as a part of the next Periodic Report, whichever is sooner. The report shall include: **(40 CFR 63.1285(f))**
   a) A brief description of the process change.
   b) A description of any modification to standard procedures or quality assurance procedures.
   c) Revisions to any of the information reported in the original Notification of Compliance Status Report under 40 CFR 63.1285(d) (SC VII.6).
   d) Information required by the Notification of Compliance Status Report under 40 CFR 63.1285(d) (SC VII.6) for changes involving the addition of processes or equipment.

5. 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). 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))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart HHH: Natural Gas Transmission and Storage Facilities. **(40 CFR Part 63 Subpart HHH)**

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

APPENDIX A

The permittee shall use the following equation, or alternate equation approved by the AQD, in conjunction with monitoring, testing or recordkeeping data to determine compliance with the emission limit of BTEX referenced in FGMACTHHHSMALL, SC I.1, BTEX emissions (40 CFR 63.1275 equation 2):

$$EL_{BTEX} = 5.44x10^{-5} * Throughput * C_{i,BTEX} * 365 \frac{days}{yr} * \frac{1\ Mg}{1x10^{6}\ grams} \quad \text{Equation 2}$$

Where:
EL_{BTEX} = Unit-specific BTEX emission limit, megagrams per year.
5.44×10^{-5} = BTEX emission limit, grams BTEX/standard cubic meter-ppmv.
Throughput = Annual average daily natural gas throughput, standard cubic meters per day.
$C_{i,BTEX}$ = Annual average BTEX concentration of the natural gas at the inlet to the glycol dehydration unit, ppmv.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES AND ENERGY

PERMIT TO INSTALL APPLICATION

For authority to install, construct, reconstruct, relocate, or modify process, fuel-burning or refuse burning equipment and/or control equipment. Permits to install are required by administrative rules pursuant to Section 5505 of 1994

FOR EGLE USE
APPLICATION NUMBER
202-19

Please type or print clearly. The "Application Instructions" and "Information Required for an Administratively Complete Permit to Install Application" are available on the Air Quality Division (AQD) Permit Web Page at www.deq.state.mi.us/aps/nsr_information.shtml. Please call the AQD at 517-284-6804 if you have not been contacted within 15 days of your application submittal.

RECEIVED

DEC 19 2019

AIR QUALITY DIVISION

1. FACILITY CODES: State Registration Number (SRN) and North American Industry Classification System (NAICS)
   SRN: N5792 NAICS: 486210

2. APPLICANT NAME: (Business License Name of Corporation, Partnership, Individual Owner, Government Agency)
   Consumers Energy Company - Overisel Compressor Station

3. APPLICANT ADDRESS: (Number and Street)
   4131 138th Avenue
   MAIL CODE:

CITY: (City, Village or Township)	STATE:	ZIP CODE:	COUNTY:
Hamilton	MI	49419	Allegan

4. EQUIPMENT OR PROCESS LOCATION: (Number and Street – if different than Item 3)
   Same as above

CITY: (City, Village or Township)	ZIP CODE:	COUNTY:

5. GENERAL NATURE OF BUSINESS:
   Natural gas compressor station

6. EQUIPMENT OR PROCESS DESCRIPTION: (A Description MUST Be Provided Here. Include Emission Unit IDs. Attach additional sheets if necessary; number and date each page of the submittal.)
   Installation of a glycol dehydration unit, with thermal oxidizer for control. The proposed unit is to replace the existing unit, identified as EUGLYCDEHY. The primary purpose of replacing the existing unit is to increase the reliability of the plant. The proposed new glycol dehydration unit will be more efficient and more reliable than the existing unit.

7. REASON FOR APPLICATION: (Check all that apply.)
   - [x] INSTALLATION / CONSTRUCTION OF NEW EQUIPMENT OR PROCESS
   - [ ] RECONSTRUCTION / MODIFICATION / RELOCATION OF EXISTING EQUIPMENT OR PROCESS – **DATE INSTALLED:**
   - [ ] OTHER – DESCRIBE

8. IF THE EQUIPMENT OR PROCESS THAT WILL BE COVERED BY THIS PERMIT TO INSTALL (PTI) IS CURRENTLY COVERED BY ANY ACTIVE PERMITS, LIST THE PTI NUMBER(S):

9. DOES THIS FACILITY HAVE AN EXISTING RENEWABLE OPERATING PERMIT (ROP)? ☐ NOT APPLICABLE ☐ PENDING APPLICATION ☒ YES
   PENDING APPLICATION OR ROP NUMBER: MI-ROP-N5792-2018

10. AUTHORIZED EMPLOYEE:	TITLE:	PHONE NUMBER: (Include Area Code)
James M. Walker	Sr. Engineering Lead	517-788-0428
SIGNATURE: James M. Walker	DATE: 12/18/2019	E-MAIL ADDRESS: james.walker@cmsenergy.com
11. CONTACT: (If different than Authorized Employee. The person to contact with questions regarding this application) Amy Kapuga		PHONE NUMBER: (Include Area Code) 517-788-2201
CONTACT AFFILIATION: Consumers Energy, Sr. Engineer		E-MAIL ADDRESS: amy.kapuga@cmsenergy.com

12. IS THE CONTACT PERSON AUTHORIZED TO NEGOTIATE THE TERMS AND CONDITIONS OF THE PERMIT TO INSTALL? ☐ YES ☐ NO

FOR EGLE USE ONLY - DO NOT WRITE BELOW

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: 5/1/2020	
DATE PERMIT TO INSTALL APPROVED: 6/11/2020	SIGNATURE: Annette Davis
DATE APPLICATION / PTI VOIDED:	SIGNATURE:
DATE APPLICATION DENIED:	SIGNATURE:

A PERMIT CERTIFICATE WILL BE ISSUED UPON APPROVAL OF A PERMIT TO INSTALL

EGLE

INVENTORY YEAR:
1.

Michigan Department of Environment, Great Lakes, and Energy - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

SV-101 STACK

Authorized under 1994 PA 451, as amended. Completion of information is required. Civil and/or criminal penalties possible for providing false information.

GENERAL INSTRUCTIONS: Refer to last year's MAERS forms or summary report for information previously submitted and complete this form with additions or corrections as necessary. For more detailed instructions refer to the MAERS Paper Forms and Instructions Booklet. This MAERS form is used to report stacks for a **specific inventory year**. Enter the **specific inventory year** in field 1.

FORM REFERENCE

2. Form Type **SV-101**	3. AQD Source ID (SRN)

STACK IDENTIFICATION

☐ Change ☒ Add

4. AQD Stack ID	5. Stack ID	6. Remove from MAERS	7. Dismantle Date (MM/DD/YYYY)
	SVTHERMOX_A	☐ Yes ☒ No	

8. Stack Description

Thermal Oxidizer for EUDEHY (Side A)

9. Actual Stack Height Above Ground	60 feet	10. Inside Stack Diameter	24 inches
11. Exit Gas Temperature	1000 degrees Fahrenheit	12. Actual Exit Gas Flow Rate	3000 cubic feet per minute

13. Stack Orientation ☐ Vertical ☐ Vertical with No Loss Sleeve ☐ Vertical with Conical Cap ☐ Horizontal ☐ Goose Neck Downward

14. Latitude	15. Longitude	16. Horizontal Collection Method
42.6975 Decimal Degrees	**-85.950556** Decimal Degrees	001

17. Source Map Scale Number	03	18. Horizontal Accuracy Measure	100 Meters
19. Horizontal Reference Datum Code		20. Reference Point Code	106
21A. Bypass Stack Only ☐ Yes ☒ No		21B. If yes, operator ID of main stack	

STACK IDENTIFICATION

☐ Change ☒ Add

4. AQD Stack ID	5. Stack ID	6. Remove from MAERS	7. Dismantle Date (MM/DD/YYYY)
	SVTHERMOX_B	☐ Yes ☒ No	

8. Operator's Stack Description

Thermal Oxidizer for EUDEHY (Side B)

9. Actual Stack Height Above Ground	60 feet	10. Inside Stack Diameter	24 inches
11. Exit Gas Temperature	1000 degrees Fahrenheit	12. Actual Exit Gas Flow Rate	3000 cubic feet per minute

13. Stack Orientation ☐ Vertical ☐ Vertical with No Loss Sleeve ☐ Vertical with Conical Cap ☐ Horizontal ☐ Goose Neck Downward

14. Latitude	15. Longitude	16. Horizontal Collection Method
42.6275 Decimal Degrees	**-85.950556** Decimal Degrees	001

17. Source Map Scale Number	03	18. Horizontal Accuracy Measure	100 Meters
19. Horizontal Reference Datum Code		20. Reference Point Code	106
21A. Bypass Stack Only ☐ Yes ☒ No		21B. If yes, operator ID of main stack	

EGLE

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

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

	SRN: N5792	Section Number (if applicable):

1. Additional Information ID
AI-PARTC

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

C.4 - Criteria Pollutant PTE Calculations
C.5 - HAP PTE Calculations

C.9 – Referenced Plans (PTI 202-19)
EUDEHY PM/MAP
EUDEHY Closed-Vent System Inspection Plan
EUDEHY CPMS Monitoring Plan

Overisel Compressor Station (N5792)
Criteria Pollutants PTE Calculations

Equipment	No. of Units	Fuel	Size	Units	Size	Units	Make/Model	Controls	Criteria Pollutant	Emission Factor	EF Units	Source	PTE (lb/hr)	PTE (tpy)
EUEMERGGEN	1	nat gas	11.3	MMBtu/hr	1462	hp	Catepillar 4SLB	None	CO	0.53	lb/MMBtu	Vendor	5.99	26.23
									NO_x	0.43	lb/MMBtu	Vendor	4.86	21.28
									VOC	0.11	lb/MMBtu	Vendor	1.24	5.44
EUENGINE1-1 EUENGINE1-2	2	nat gas	19	MMBtu/hr	2700	hp	Clark TLA-8 2SLB	Lean Burn	CO	0.39	lb/MMBtu	AP-42	7.33	32.12
									NO_x	3.17	lb/MMBtu	AP-42	60.23	263.81
									VOC	0.12	lb/MMBtu	AP-42	2.28	9.99
EUENGINE1-3 EUENGINE1-4	2	nat gas	19	MMBtu/hr	2700	hp	Clark TLA-8 2SCB	Clean Burn	CO	0.39	lb/MMBtu	AP-42	7.33	32.12
									NO_x	1.40	lb/MMBtu	Test	26.60	116.51
									VOC	0.12	lb/MMBtu	AP-42	2.28	9.99
EUBOILER1	1	nat gas	1.68	MMBtu/hr				None	CO	84	lb/MMCF	AP-42	0.14	0.61
									NO_x	1.00E+02	lb/MMCF	AP-42	0.16	0.72
									VOC	9.18E+00	lb/MMCF	AP-42	0.02	0.07
EUFUELHEATER1A EUFUELHEATER1B	2	nat gas	0.15	MMBtu/hr				None	CO	84	lb/MMCF	AP-42	0.02	0.11
									NO_x	1.00E+02	lb/MMCF	AP-42	0.03	0.13
									VOC	9.18E+00	lb/MMCF	AP-42	0.00	0.01
EULINEHEATER1 EULINEHEATER2 EULINEHEATER3	3	nat gas	4	MMBtu/hr				None	CO	84	lb/MMCF	AP-42	0.99	4.33
									NO_x	1.00E+02	lb/MMCF	AP-42	1.18	5.15
									VOC	9.18E+00	lb/MMCF	AP-42	0.11	0.47
EULINEHEATER4A EULINEHEATER5A EULINEHEATER6A	3	nat gas	9.2	MMBtu/hr				None	CO	84	lb/MMCF	AP-42	2.27	9.96
									NO_x	1.00E+02	lb/MMCF	AP-42	2.71	11.85
									VOC	9.18E+00	lb/MMCF	AP-42	0.25	1.09
EUREBOILER-S	1	nat gas	2	MMBtu/hr				None	Removed					
Reboiler A	1	nat gas	3.125	MMBtu/hr				None	CO	84	lb/MMCF	AP-42	0.26	1.13
									NO_x	1.00E+02	lb/MMCF	AP-42	0.31	1.34
									VOC	9.18E+00	lb/MMCF	AP-42	0.03	0.12
TO A	1	nat gas	4.375	MMBtu/hr				None	CO	84	lb/MMCF	AP-42	0.36	1.58
									NO_x	1.00E+02	lb/MMCF	AP-42	0.43	1.88
									VOC	9.18E+00	lb/MMCF	AP-42	0.04	0.17
Reboiler B	1	nat gas	3.125	MMBtu/hr				None	CO	84	lb/MMCF	AP-42	0.26	1.13
									NO_x	1.00E+02	lb/MMCF	AP-42	0.31	1.34
									VOC	9.18E+00	lb/MMCF	AP-42	0.03	0.12
TO B	1	nat gas	4.375	MMBtu/hr				None	CO	84	lb/MMCF	AP-42	0.36	1.58
									NO_x	1.00E+02	lb/MMCF	AP-42	0.43	1.88
									VOC	9.18E+00	lb/MMCF	AP-42	0.04	0.17
													CO PTE	110.89
													NO_x PTE	425.89
													VOC PTE	27.65

Overisel Compressor Station (N5792)
HAP PTE Calculations

Equipment	Fuel	Size	Units	Size	Units	Make/Model	Controls	HAP	Emission Factor	EF Units	Source	HAP Emissions (lb/yr)	HAP Emissions (tpy)
EUEMERGGEN	nat gas	11.3	MMBtu/hr	1462	Hp	Catepillar 4SLB	None	**Formaldehyde**	5.28E-02	lb/MMBtu	AP-42 Table 3.2-2	5226.57	2.61
								Acrolein	5.14E-03	lb/MMBtu	AP-42 Table 3.2-2	508.80	0.25
								Acetaldehyde	8.36E-03	lb/MMBtu	AP-42 Table 3.2-2	827.54	0.41
								Methanol	2.50E-03	lb/MMBtu	AP-42 Table 3.2-2	247.47	0.12
								Benzene	4.40E-04	lb/MMBtu	AP-42 Table 3.2-2	43.55	0.02
EUENGINE1-1 EUENGINE1-2 EUENGINE1-3 EUENGINE1-4	nat gas	19	MMBtu/hr	2700	Hp	Clark TLA-8 2SLB/2SCB	1 and 2 lean burn (unmodified) 3 and 4 clean burn	**Formaldehyde**	5.52E-02	lb/MMBtu	AP-42 Table 3.2-1	36749.95	18.37
								Acrolein	7.78E-03	lb/MMBtu	AP-42 Table 3.2-1	5179.61	2.59
								Acetaldehyde	7.76E-03	lb/MMBtu	AP-42 Table 3.2-1	5166.30	2.58
								Methanol	2.48E-03	lb/MMBtu	AP-42 Table 3.2-1	1651.08	0.83
								Benzene	1.94E-03	lb/MMBtu	AP-42 Table 3.2-1	1291.57	0.65
EUBOILER1	nat gas	1.68	MMBtu/hr				None	Hexane	1.8	lb/10^6 scf	AP-42 Table 1.4-3	25.97	0.01
								Formaldehyde	7.50E-02	lb/10^6 scf	AP-42 Table 1.4-3	1.08	0.001
								Benzene	2.10E-03	lb/10^6 scf	AP-42 Table 1.4-3	0.03	0.00002
								Dichlorobenzene	1.20E-03	lb/10^6 scf	AP-42 Table 1.4-3	0.02	0.00001
EUFUELHEATER1A EUFUELHEATER1B	nat gas	0.15	MMBtu/hr				None	Hexane	1.8	lb/10^6 scf	AP-42 Table 1.4-3	4.64	0.002
								Formaldehyde	7.50E-02	lb/10^6 scf	AP-42 Table 1.4-3	0.19	0.0001
								Benzene	2.10E-03	lb/10^6 scf	AP-42 Table 1.4-3	0.01	0.000003
								Dichlorobenzene	1.20E-03	lb/10^6 scf	AP-42 Table 1.4-3	0.003	0.000002
EULINEHEATER1 EULINEHEATER2 EULINEHEATER3	nat gas	4	MMBtu/hr				None	Hexane	1.8	lb/10^6 scf	AP-42 Table 1.4-3	185.51	0.09
								Formaldehyde	7.50E-02	lb/10^6 scf	AP-42 Table 1.4-3	7.73	0.004
								Benzene	2.10E-03	lb/10^6 scf	AP-42 Table 1.4-3	0.22	0.0001
								Dichlorobenzene	1.20E-03	lb/10^6 scf	AP-42 Table 1.4-3	0.12	0.0001
EULINEHEATER4A EULINEHEATER5A EULINEHEATER6A	nat gas	9.2	MMBtu/hr				None	Hexane	1.8	lb/10^6 scf	AP-42 Table 1.4-3	426.66	0.21
								Formaldehyde	7.50E-02	lb/10^6 scf	AP-42 Table 1.4-3	17.78	0.01
								Benzene	2.10E-03	lb/10^6 scf	AP-42 Table 1.4-3	0.50	0.0002
								Dichlorobenzene	1.20E-03	lb/10^6 scf	AP-42 Table 1.4-3	0.28	0.0001
EUREBOILER-S	nat gas	2	MMBtu/hr				None	Removed					
Reboiler A	nat gas	3.125	MMBtu/hr				None	Hexane	1.8	lb/10^6 scf	AP-42 Table 1.4-3	48.31	0.02
								Formaldehyde	7.50E-02	lb/10^6 scf	AP-42 Table 1.4-3	2.01	0.001
								Benzene	2.10E-03	lb/10^6 scf	AP-42 Table 1.4-3	0.06	0.00003
								Dichlorobenzene	1.20E-03	lb/10^6 scf	AP-42 Table 1.4-3	0.03	0.00002
TO A	nat gas	4.375	MMBtu/hr				None	Hexane	1.8	lb/10^6 scf	AP-42 Table 1.4-3	67.63	0.03
								Formaldehyde	7.50E-02	lb/10^6 scf	AP-42 Table 1.4-3	2.82	0.001
								Benzene	2.10E-03	lb/10^6 scf	AP-42 Table 1.4-3	0.08	0.00004
								Dichlorobenzene	1.20E-03	lb/10^6 scf	AP-42 Table 1.4-3	0.05	0.00002
Reboiler B	nat gas	3.125	MMBtu/hr				None	Hexane	1.8	lb/10^6 scf	AP-42 Table 1.4-3	48.31	0.02
								Formaldehyde	7.50E-02	lb/10^6 scf	AP-42 Table 1.4-3	2.01	0.001
								Benzene	2.10E-03	lb/10^6 scf	AP-42 Table 1.4-3	0.06	0.00003
								Dichlorobenzene	1.20E-03	lb/10^6 scf	AP-42 Table 1.4-3	0.03	0.00002
TO B	nat gas	4.375	MMBtu/hr				None	Hexane	1.8	lb/10^6 scf	AP-42 Table 1.4-3	67.63	0.03
								Formaldehyde	7.50E-02	lb/10^6 scf	AP-42 Table 1.4-3	2.82	0.001
								Benzene	2.10E-03	lb/10^6 scf	AP-42 Table 1.4-3	0.08	0.00004
								Dichlorobenzene	1.20E-03	lb/10^6 scf	AP-42 Table 1.4-3	0.05	0.00002
											SINGLE HAP (FORMALDEHYDE) EMISSIONS		21.01
											TOTAL HAP EMISSIONS		28.90

Consumers Energy
Count on Us®

August 11, 2021

Mr. Rex Lane, Supervisor
Michigan Department of Environment, Great Lakes, and Energy-Air Quality Division
Kalamazoo District Office
7953 Adobe Road
Kalamazoo, MI 49009-5026

Re: PTI 202-19
Consumers Energy Company's Overisel Compressor Station (SRN: N5792)

Dear Mr. Lane:

Pursuant to the requirements of Permit to Install (PTI) 202-19 for Consumers Energy Company's Overisel Compressor Station, enclosed is the Preventative Maintenance/Malfunction Abatement Plan (PM/MAP) for EUDEHY. This small glycol dehydration system consists of two identical halves. Each half has two contact towers, a flash tank, a surge tank, a reboiler, and a thermal oxidizer.

If you have any questions, or require additional information, please feel free to contact me at 517-788-2201 or amy.kapuga@cmsenergy.com.

Sincerely,

Amy D. Kapuga

Amy D. Kapuga
Senior Environmental Engineer
Environmental Services-Air Quality

cc: Coleman Miller, Compression Project Engineering
Brent Keskine, Sr. Field Leader-Overisel Compressor Station
Overisel Compressor Station Compliance File

Consumers Energy
1945 W. Parnall Road
Jackson, MI 49201
www.consumersenergy.com

Preventative Maintenance/Malfunction Abatement Plan (PM/MAP)

Overisel Compressor Station Glycol Dehydration System (EUDEHY)

Prepared by:
Coleman Miller
May 17, 2021

Table of Contents

1.0 PM/MAP Overview and Approval

Facility: Overisel Compressor Station

Physical Address: 4131 138th Ave
Hamilton, MI 49419

Plan Adoption Date: _____

Previous Revisions: None

Purpose of the PM/MAP:

The purpose of this PM/MAP is to describe the actions that will be taken at Overisel Compressor Station to prevent, detect, and correct malfunctions or equipment failures that could result in emissions exceeding any applicable limits. This plan is for the dehydration equipment associated with Overisel Compressor Station.

This PM/MAP and any revisions of this Plan will be maintained for a period of five (5) years and will be on file at Overisel Compressor Station. This PM/MAP does not contain proprietary information.

At Overisel Compressor Station, the field leader, or designee, is responsible for assuring that the most recent copy of this PM/MAP is made available to personnel involved with the affected operations. This individual is also responsible for ensuring that Station employees are aware of the procedures and requirements contains in this Plan.

All reports for the PM/MAP must be signed by a Responsible Official.

2.0 Equipment Covered by PM/MAP

This PM/MAP addresses the triethylene glycol (TEG) dehydration systems, and associated control and monitoring equipment, located at the Overisel Compressor Station (EUDEHY). EUDEHY is designed to lower the water content of natural gas being withdrawn from Overisel and Salem storage fields. The dehydration systems are normally operational during the winter withdrawal season on an as-needed basis.

EUDEHY consists of two redundant systems each containing (2) contact towers, regenerator, 3-phase flash separator, pumps, and filters. EUDEHY is also equipped with (2) redundant thermal oxidizers.

The thermal oxidizer units are the air emissions control devices for EUDEHY. The thermal oxidizers are redundant. Either or both regenerators may be operated with either or both thermal oxidizers. Each thermal oxidizer has a process logic control based local control panel. Natural gas will not be processed in the glycol dehydration system unless at least one thermal oxidizer is operating in a satisfactory manner.

3.0 Operating Variables to be Monitored for the Thermal Oxidizer

Temperatures will be maintained at 1400 ^{o}F or above on a daily average. Automated controls shall prevent the contactors and regenerator from operating without the thermal oxidizer in operation. There is also a combustion chamber temperature monitoring device with a continuous recorder that has an accuracy of ± 1 percent of the temperature being monitored. Operating variables for the thermal oxidizers which will be monitored automatically are listed below.

Combustion Chamber High Temperature Shutdown

- TO 1 – TIT-06045 – 1800°F
- TO 2 – TIT-06048 – 1800°F

Stack High Temperature Shutdown

- TO 1 – TSHH-06046 – 1800°F
- TO 2 – TSHH-06049 – 1800°F

Burner Blower Pressure Low Shutdown

- TO 1 – PSLL-06012 – 1.5" H_2O
- TO 2 – PSLL-06016 – 1.5" H_2O

Burner Flame Failure Shutdown (in BMS)

- TO 1 – FFSD-ARBW-1-10-3-01
- TO 2 – FFSD-ARBW-1-10-4-01

High Fuel Gas Pressure Shutdown

- TO 1 – PSHH-06010 – 40" H_2O
- TO 2 – PSHH-06014 – 40" H_2O

Low Fuel Gas Supply Pressure Shutdown

- TO 1 – PSLL-06009 – 10 psig
- TO 2 – PSLL-06014 – 10 psig

4.0 Malfunction Events & Procedures

In the event of a malfunction, the regenerator unit is programmed to automatically shut down. The unit can be manually stopped from the station control room, the unit's control panel HMI screen, the dehy system control panel HMI screen, or with any emergency shut down push button. Push buttons are located at each of the six (6) man doors. If this occurs, both the regenerator burner assembly and the glycol charge pump are shut down.

Diagnosis and troubleshooting will be performed in accordance to the manufacturer specifications to ensure that the dehydration system is within limits. Once the system is again operating per the manufacturer's specifications, the proper manufacturer specified procedures will be followed to bring the system back online.

5.0 Preventative Maintenance

Thermal oxidizer preventative maintenance will be performed to maintain the performance of the thermal oxidizer and to help prevent unscheduled outages. Maintenance that will be performed on the equipment will be executed per manufacturer recommendation. Any necessary maintenance that may arise during the operation of this equipment will be approached utilizing the manufacturer recommended steps for troubleshooting and maintaining the equipment.

SAP work orders will be issued in accordance with the glycol dehydration system preventative maintenance plan. Maintenance logs will be kept in the SAP system.

6.0 Parts and Inventory

The replacement parts that will be maintained in inventory for quick replacement will be determined after the equipment has been operated and life cycle duration can be determined. A preliminary list of recommend spare parts from the equipment manufacturer can be found in Appendix A.

7.0 Supervisory Personal Responsible for Maintenance of Control Equipment

Name:	*Brent Keskine*
Title:	*Senior Field Leader*
Location:	*Overisel Compressor Station* *4131 138th Ave* *Hamilton, MI 49419*
Phone:	*(269) 751-3052 (Office)*
Email:	*BRENT.KESKINE@cmsenergy.com*

8.0 Retention of Records

Records shall be maintained on file for a period of five years.

9.0 Updates/Revisions of PM/MAP

Periodically this PM/MAP may need to be revised. Copies of all PM/MAP revisions will be retailed for a period of five years.

Revisions must be completed within 45 days if the PM/MAP does not address – or inadequately addresses – an event that occurs and meets the characteristics of a malfunction. The revisions must include procedures to operate and maintain the source during similar malfunction events and a program of corrective action for similar malfunctions of the compressor engines or associated controls and monitoring equipment. The revised plan shall be submitted to the AQD District Supervisor may request modification of the plan to address those inadequacies. MDEQ recommends the PM/MAP be reviewed annually.

APPENDIX A. Manufacturer Recommended Spare Parts List

Instrumentation

Qty	Description
2	HONEYWELL C7027A-1049 MINI PEEPER
1	HONEYWELL ULTRAVIOLET AMPLIFIER, 3 SEC #R7849A1023
2	MAXON SPARK IGNITOR FOR OVENPAK LE 25
1	FNW VALVE w/ MERIDIAN ACTUATOR, & TOPWORXFNW311AMG, AD75SR12, DXPM21GNEB,FNW: 1" CS 1000# THD 3PC FP ISO BVMERIDIAN: PNEU SR ACT (SIZED FOR 100PSI AIR SUPPLY TO ACTUATOR, DESIGNED TO FAIL CLOSED UPON LOSS OF AIR SUPPLY & INCLUDES A MINIMUM 1.40 SAFETY FACTOR)TOPWORX: DXP 2 SPDT MECH EXP NMR ¾
1	ASCO SOLENOID VALVE, EF8320G202-120VAC 3 WAY DIRECT ACTING, 1/4" NPT CONNECTION, SS BODY
1	ASCO SOLENOID VALVE, EF8320G202-24VDC 3 WAY DIRECT ACTING, 1/4" NPT CONNECTION
1	NEO-DYN 142P8 ULTRA LOW VACUUM/PRESSURE SWITCH 142P 8 2 CC 6 4 4 3
1	NEO-DYN 132P PRESSURE SWITCH/INTERNAL ADJUSTMENT 132P 4 8 CC 6 G
1	FISHER I2P-100 ELECTRO-PNEUMATIC TRANSDUCER4-20mA INPUT SIGNAL, 6-30 PSIG OUTPUT PRESSURECSA - INTRINSICALLY SAFE, EXPLOSION PROOF, TYPE N, DUST-IGNITION PROOF
1	FISHER 67CFR INSTRUMENT SUPPLY REGULATOR0-125 PSIG SPRING RANGE, STANDARD CONSTRUCTION MATERIALS
1	FISHER 67CFR INSTRUMENT SUPPLY REGULATOR0-60 PSIG SPRING RANGE, STANDARD CONSTRUCTION MATERIALS
1	FISHER 67CFR INSTRUMENT SUPPLY REGULATOR0-20 PSIG SPRING RANGE, STANDARD CONSTRUCTION MATERIALS
1	FISHER PARTS KIT GE31289X012 FOR CS800 REGULATOR
1	FISHER PARTS KIT FOR 2" D4 w/ 3/8" STANDARD TRIM
1	FISHER PARTS KIT FOR 2" D4 w/ 1-1/4" STANDARD TRIM
1	FISHER PARTS KIT FOR 2" D4 w/ 1" STANDARD TRIM
1	FISHER PARTS KIT FOR 2" D4 w/ 1/2" STANDARD TRIM
1	ASHCROFT 1259 PROCESS PRESSURE GAUGE 45-1259-S-L-04-L- -2000#
1	ASHCROFT 1009 PRESSURE GAUGE 351009SWL04L100#
1	ASHCROFT 1259 PROCESS PRESSURE GAUGE 45-1259-S-L-04-L- -160#
2	MIDWEST DIFFERENTIAL PRESSURE GAUGE, 120 AA 00
1	BLANCET/BADGER CIRCUIT BOARD FOR B2900 (SN REQUIRED)
1	BLANCET/BADGER REPAIR KIT B253-112 FOR B131-100 FLOW TRANSMITTER
2	ROSEMOUNT 03144-3111-0007 CIRCUIT BOARD FOR 3144P TEMPERATURE TRANSMITTER
2	ROSEMOUNT 03031-0020-3100 CIRCUIT BOARD FOR 3051 PRESSURE TRANSMITTER
2	ROSEMOUNT 02130-7000-0004 RELAY OUTPUT, DPCO, GREEN LABLE FOR LEVEL SWITCH
1	WATLOW EZ-ZONE PM EXPRESS PM3 L3EJ-AAAABAA

Filters

Qty	Description
1	BAG FILTER PE-10-P02E-WW-30L (BOX OF 30) 10 MICRON BAG
28	CHARCOAL FILTER 1122-C

TEG Pumps

Qty	Description
2	02819247, Seal, radial shaft 4.250 x 3.250 x 0.438 CR32397, A.5 (Design)
3	01720745, Seal, 4.600 x 5.130 x .262 NBR DM, B.7 (Design)
12	01720747, Wiper, oil W60-W80, A.3 (Design)
3	01720748, Rod, intermediate W60-W80 TTC 17-4 base, B.12 (Design)
1	01720754, Gasket, cover rear W60-W80, B.8 (Design)
2	01720751, Gasket, cover top W60-W80, B.8 (Design)
1	01720754, Gasket, cover rear W60-W80, B.8 (Design)
2	01825095, Valve, complete cage SP W60-W80H, A.4 (Design)
2	01825923, SPRING, CAGE SP VALVE, W60-W80H, A.2 (Design)
3	01750036, Seal, 1.875 x 1.600 x .310 NBR DM, B.3 (Design)
1	01782139, Seal, 2.381 x 1.975 x .200 NBR DM, B.6 (Design)
1	02025051, Set, packing 1.000 x 1.750 x 2.250 858 style, A.3 (Design)
3	01748404, Plunger, W60-W80 1.000 THD TC SST base, C.12 (Design)
1	02256647, Gasket, inspection cover gear reducer W60/W80, A.4 (Design)
1	02817947, Seal, radial shaft 3.000 x 2.250 x 0.438 CR22359, A.3 (Design)

EUDEHY
Closed-Vent System Inspection Plan

Consumers Energy Overisel Compressor Station No Detectable Emissions Testing - Regenerator 1						
Location Description	**Device Type**	**Time Inspected**	**VOC Readings (ppmv)**	**Leak Detected (Y/N)**	**Repair Order**	**Difficult to Inspect***
Reflux Condenser (COND-1-10-1-01) lower flange	Flange					X
Reflux Condenser (COND-1-10-1-01) upper flange	Flange					X
Still Column Temp Element (TW-06020/TE-06020)	Thermowell					X
Still Column Temp Indicator (TW-06050/TE-06050)	Thermowell					X
Flame arrestor (FA-2000) 4" inlet flange	Flange					X
Flame arrestor (FA-2000) 4" outlet flange	Flange					X
Superheater (HEXC-1-10-1-05) 4" inlet flange	Flange					
Superheater (HEXC-1-10-1-05) 4" outlet flange	Flange					
Notes						
	Initials		Date			
Completed By						

*Items marked as "Difficult to Inspect" are monitored initially and every 5 years. All other items are monitored initially and annually.

Consumers Energy
Overisel Compressor Station
No Detectable Emissions Testing - Thermal Oxidizer 1

Location Description	Device Type	Time Inspected	VOC Readings (ppmv)	Leak Detected (Y/N)	Repair Order	Difficult to Inspect*
4" 13DISTV-001	Valve					
4" 13DISTV-002	Valve					
4" 13DISTV-003	Valve					
4" Thermal Oxidizer Skid 1 Edge flange	Flange					
4" FCV-06001	Valve					
TO Rundown Knockout Tank (TANK-1-10-3-01) 4" inlet flange	Flange					
TO Rundown Knockout Tank (TANK-1-10-3-01) 4" outlet flange	Flange					
TO Rundown Knockout Tank Level Switch High-High (LSHH-06041)	Level Switch					
TO Rundown Knockout Tank Level Switch High (LSH-06042)	Level Switch					
TO Rundown Knockout Tank Level Switch Low (LSL-06043)	Level Switch					
TO Rundown Knockout Tank Level Gauge (LG-06015)	Level Gauge					
13DISTV-055 TO Rundown Knockout drain valve	Valve					
TO Upset Knockout Tank (TANK-1-10-3-02) 4" inlet flange	Flange					
TO Upset Knockout Tank (TANK-1-10-3-02) 4" outlet flange	Flange					
TO Upset Knockout Tank Level Switch High-High (LSHH-06044)	Level Switch					
TO Upset Knockout Tank Level Switch High (LSH-06045)	Level Switch					
TO Upset Knockout Tank Level Switch Low (LSL-06046)	Level Switch					
TO Upset Knockout Tank Level Gauge (LG-06016)	Level Gauge					
13DISTV-059 TO Upset Knockout drain valve	Valve					
Still vapor inlet at Thermal Oxidizer (THER-1-10-3-01)	Flange					

Notes		
	Initials	Date
Completed By		

*Items marked as "Difficult to Inspect" are monitored initially and every 5 years. All other items are monitored initially and annually.

Consumers Energy
Overisel Compressor Station
No Detectable Emissions Testing - Regenerator 2

Location Description	Device Type	Time Inspected	VOC Readings (ppmv)	Leak Detected (Y/N)	Repair Order	Difficult to Inspect*
Reflux Condenser (COND-1-10-2-01) lower flange	Flange					X
Reflux Condenser (COND-1-10-2-01) upper flange	Flange					X
Still Column Temp Element (TW-06025/TE-06025)	Thermowell					X
Still Column Temp Indicator (TW-06051/TE-06051)	Thermowell					X
Flame arrestor (FA-2000) 4" inlet flange	Flange					X
Flame arrestor (FA-2000) 4" outlet flange	Flange					X
Superheater (HEXC-1-10-2-05) 4" inlet flange	Flange					
Superheater (HEXC-1-10-2-05) 4" outlet flange	Flange					
Notes						
Completed By	Initials		Date			

*Items marked as "Difficult to Inspect" are monitored initially and every 5 years. All other items are monitored initially and annually.

Consumers Energy
Overisel Compressor Station
No Detectable Emissions Testing - Thermal Oxidizer 2

Location Description	Device Type	Time Inspected	VOC Readings (ppmv)	Leak Detected (Y/N)	Repair Order	Difficult to Inspect*
4" 14DISTV-001	Valve					
4" 14DISTV-002	Valve					
4" 14DISTV-003	Valve					
4" Thermal Oxidizer Skid 2 Edge flange	Flange					
4" FCV-06002	Valve					
TO Rundown Knockout Tank (TANK-1-10-4-01) 4" inlet flange	Flange					
TO Rundown Knockout Tank (TANK-1-10-4-01) 4" outlet flange	Flange					
TO Rundown Knockout Tank Level Switch High-High (LSHH-06047)	Level Switch					
TO Rundown Knockout Tank Level Switch High (LSH-06048)	Level Switch					
TO Rundown Knockout Tank Level Switch Low (LSL-06049)	Level Switch					
TO Rundown Knockout Tank Level Gauge (LG-06017)	Level Gauge					
14DISTV-055 TO Rundown Knockout drain valve	Valve					
TO Upset Knockout Tank (TANK-1-10-4-02) 4" inlet flange	Flange					
TO Upset Knockout Tank (TANK-1-10-4-02) 4" outlet flange	Flange					
TO Upset Knockout Tank Level Switch High-High (LSHH-06050)	Level Switch					
TO Upset Knockout Tank Level Switch High (LSH-06051)	Level Switch					
TO Upset Knockout Tank Level Switch Low (LSL-06052)	Level Switch					
TO Upset Knockout Tank Level Gauge (LG-06018)	Level Gauge					
14DISTV-059 TO Upset Knockout drain valve	Valve					
Still vapor inlet at Thermal Oxidizer (THER-1-10-4-01)	Flange					

Notes		
	Initials	Date
Completed By		

*Items marked as "Difficult to Inspect" are monitored initially and every 5 years. All other items are monitored initially and annually.

Consumers Energy Company

Overisel Compressor Station

Hamilton, Michigan

40 CFR Part 63, Subpart HHH

EUDEHY

CPMS Site-Specific Monitoring Plan

Effective Date: November 1, 2021

Version: 02

Driver: Regulatory

Monitoring Plan Revision History[1]			
Revision No.	**Revised By**	**Revision Date**	**Comments (e.g. Description of Revisions)**
0	AD Kapuga	October 25, 2021	Draft
1	AD Kapuga	April 15, 2022	Final Draft with TO Temperatures

[1]Revisions must be retained for 5 years from the date of the revision.

TABLE OF CONTENTS

ATTACHMENTS

1.0 Purpose

The purpose of this Plan is to describe the continuous parameter monitoring system (CPMS) to be used at Overisel Compressor Station to meet the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPS) from Natural Gas Transmission and Storage Facilities – Maximum Achievable Control Technology (MACT), Subpart HHH of 40 CFR part 63. These regulations require the control and continuous parameter monitoring of air pollution control equipment associated with glycol dehydration systems, including thermal oxidizers. This Site Monitoring Plan must be available for review if requested by the EPA or delegated state or local air quality agency.

Contact Person
Any questions in regard to this Site Monitoring Plan should be directed to the Field Leader for Overisel Compressor Station.

Name: Dean Lampen, Field Leader
Phone: (269) 751-3042
Email: DEAN.LAMPEN@cmsenegy.com
Address: Consumers Energy Company
Overisel Compressor Station
4131 138th Avenue
Hamilton, MI 49419

1.1 Scope

This Site Monitoring Plan applies to the Overisel Compressor Station, located at 4131 138th Avenue, Hamilton, MI, which is wholly owned and operated by Consumers Energy Company.

1.2 Definitions

Administrator means the regulatory agency that is responsible for the administration of the MACT regulation; this could be EPA, or EGLE.

Bypass means to route gas around a control device.

Closed-Vent System is a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and if necessary, flow inducing devices that transport gas or vapor from an emission point to one or more control devices. If gas or vapor from regulated equipment is routed to a process (e.g., to a fuel gas system), the conveyance system shall not be considered a closed-vent system and is not subject to closed-vent system standards.

Continuous Recorder is a data recording device that either records an instantaneous data value at least once every hour or records hourly or more frequent block average values.

CPMS means continuous parameter monitoring.

EPA means United States Environmental Protection Agency.

MACT means Maximum Achievable Control Technology.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. This definition is provided for information only. Operations should consult with the Field Leader to determine whether or not a malfunction has occurred due to any unit alarm or shutdown for purposes related to the Maximum Achievable Control Technology (MACT) rules.

Safety Device is a device that meets both of the following conditions: the device is not used for planned or routine venting of liquids, gases, or fumes from the unit or equipment on which the device is installed; and the device remains in a closed, sealed position at all times except when an unplanned event requires that the device open for purpose of preventing physical damage or permanent deformation of the unit or equipment on which the device is installed in accordance with good engineering and safety practices for handling flammable, combustible, explosive, or other hazardous materials. Examples of unplanned events which may require a safety device to open include failure of an essential equipment component or a sudden power outage.

Shutdown means the cessation of operation of a glycol dehydration unit for purposes including, but not limited to: periodic maintenance, replacement of equipment, or repair.

Small glycol dehydration unit is a glycol dehydration unit, located at a major source, with an actual average natural gas flowrate less than 283.0 thousand standard cubic meters per day or actual annual average benzene emissions less than 0.90 Mg/yr.

Startup means the setting into operation of an affected source, or portion of an affected source for any purpose.

Temperature Monitoring Device is an instrument used to monitor temperature and having a minimum accuracy of ±2 percent of the temperature being monitored expressed in °C, or ±2.5 °C, whichever is greater. The temperature monitoring device may measure temperature in degrees Fahrenheit or degrees Celsius, or both.

2.0 Procedure

This section provides information on the affected emission units and the associated CPMS instrumentation and equipment. The CPMS Monitoring Plan must include monitoring system design specification and equipment performance criteria for the sample interface, detector signal analyzer, and data acquisition and calculations.

2.1 Affected Source(s) and Associated CPMS Equipment

Consumers Energy's Overisel Compressor Station (N5792) is a natural gas compression station. The purpose of the facility is to maintain pressure of natural gas in order to move it in and out of storage reservoirs and along the pipeline system. There are two (2) redundant affected sources (glycol dehydration units) installed at the station that are used to remove moisture from natural gas withdrawn from the storage fields, as follows:

Emission Unit ID	Emission Controls	CPMS Metric	CPMS Value (Daily Avg)
EUDEHY1	Thermal Oxidizer	Temperature	≥1,460°F
EUDEHY2	Thermal Oxidizer	Temperature	≥1,510°F

2.2 Control Equipment Requirements

The emission limit must be met by connecting the process vent to a control device, or combination of control devices, through a closed-vent system. The required closed-vent system shall route all gases, vapors, and fumes to a control device that meets all of the following criteria:

- Designed and operated with no detectable emissions
- If the closed-vent system contains 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, you must meet the following:
  - *At the inlet to the bypass device, properly install, calibrate, maintain and operate a flow indicator that is capable of taking periodic readings and sounding an alarm when the bypass device is open;* ***or***
  - *Secure the bypass device valve in the non-diverting position using a car-seal or a lock-and-key type configuration*
  - *Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines and safety devices are not subject to this requirement*

EUDEHY does not contain any bypass devices.

2.3 Inspection & Monitoring

Required Inspections

Each closed-vent system shall be inspected as follows:

- For joints, seams, or other connections that are permanently or semi-permanently sealed:
  - Conduct an initial inspection to demonstrate that the closed-vent system operates with no detectable emissions
  - Report inspection results with the Notification of Compliance Status Report
  - Conduct annual visual inspections for defects that could result in air emissions (ie: visible cracks, holes or gaps in piping; loose connections; broken or missing caps or other closure devices)
- In addition, for components other than those listed above, conduct annual inspections to demonstrate that the components or connections operate with "*no detectable emissions*".

Report all inspection results in the Periodic Report

Difficult to Inspect Equipment

- Identify any equipment that cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface.

- Inspection is this equipment is required at least once every 5 years

Unsafe to Inspect Equipment

- Identify any equipment where the inspecting personnel would be exposed to an imminent or potential danger.

- Inspection of this equipment is required as frequently as practicable during safe-to-inspect times.

Required Monitoring

Install, calibrate, operate & maintain a temperature monitoring device, equipped with a continuous recorder, to measure the combustion chamber temperature for each thermal oxidizer.

- Establish a minimum operating parameter value to define the conditions at which the control device must be operated to continuously achieve the applicable performance requirements.

Emission Unit ID	Minimum T.O. Operating Temperature
EUDEHY1	≥1,460°F
EUDEHY2	≥1,510°F

- Using data recorded by the monitoring system, calculate the daily average for each monitored operating parameter for each operating day

2.4 System Design Considerations

The purpose of the CPMS is to:

- Continuously monitor the combustion chamber temperature of each thermal oxidizer.
- Record the temperature at least once every 15 minutes.
- Average the data on a block-hour.
- Calculate a daily average based on the block-hour data.

2.4.1 Temperature Measurement Device Specifications

The following specifications apply to the temperature measurement devices:

Parameter	Specification
Location	The temperature sensor shall be installed at a location representative of the combustion zone temperature.
Device Type	Thermocouple
Tolerance	±2 percent of the temperature being monitored in °C, or ±2.5 °C, whichever value is greater [63.1283(d)(3)(i)(A)]

2.4.2 Data Acquisition System

The Supervisory Control and Data Acquisition (SCADA) system uses Programmable Logic Controller (PLC) to monitor and control systems. The PLC takes a signal from the thermocouple, located in the combustion chamber temperature of the thermal oxidizer, and converts it to engineering units to be sent to the HMI's and to the SCADA computer. A Historian computer is connected to the SCADA network using Ethernet. A XL Reporter program resides on the Historian computer.

The XL Reporter provides the following readouts:

- 15-minute snapshot temperature readings
- 1-hour average temperatures
- Daily average temperatures

In the event of a failure of the Historian computer, or the network connection, a chart recorder is used as a redundant backup.

2.4.3 Reporting System

The Historian PC with reporting software is connected to the SCADA network. The reporting software is used to collect data from the PLC, collate into a report for printing, and for long-term retention of the data.

3.0 Temperature Monitoring System Performance Evaluation and Periodic QA/QC Procedures

3.1 Periodicity

The requirements for periodic audits consist of equipment requirements and procedural requirements. All equipment has to be calibrated and meet general requirements for accuracy: (1) An accuracy hierarchy of at least three, and (2) an accuracy that is NIST-traceable. An exception to the accuracy requirements for instruments that are used to audit the accuracy of the CPMS is when performing an accuracy audit using a redundant sensor, the redundant sensor would have to have an accuracy equal to or better than the accuracy of the primary sensor.

A factory calibrated unit was installed on each of the units. The calibration certification sheets, or other appropriate documentation, shall be retained demonstrating factory calibration. Annual audits of the CPMS shall be conducted as described below.

3.2 Methodology

One of the following methods shall be used for performance evaluations:

3.2.1 RTD Replacement

The RTD shall be replaced with a factory calibrated unit meeting the design requirements listed above. The calibration certification sheet, or other appropriate documentation, shall be retained demonstrating factory calibration.

Concurrently, a calibrated RTD simulator shall be used to test the remaining elements of the CPMS system in accordance with manufacturer's recommendations and company policies and procedures. A written work plan or SAP work order documenting steps to be followed shall be used.

3.2.2 Calibration

The performance of the temperature RTD shall be checked in-place (validated by using an Ametek Jofra Temperature Calibrator, or equivalent). Test equipment will be calibrated using the listed standards which are traceable to the International System of Units through the National Institute of Standards. The calibration of the thermocouple and SCADA shall be done in accordance with manufacturer's recommendations and company policies and procedures. A written work order documenting steps to be followed shall be used.

3.3 Accuracy

The accuracy criteria for the validation check is ±2 percent of the temperature being monitored in °C, or ±2.5 °C (36.5°F), whichever value is greater [63.1283(d)(3)(i)(A)]. The thermal oxidizer combustion chamber temperature is required to be maintained above the established operating condition. Therefore, the system accuracy criterion for the CPMS is ±2 percent of the temperature being monitored.

3.4 Notification

Notification to EGLE prior to conducting the performance evaluation or with results after testing is not required.

3.5 Documentation

Closeout of the work order shall be considered sufficient documentation provided factory calibration sheets, field readings, and/or other results, as appropriate, are included in the closeout comments or attached to the work order.

3.6 Malfunctioning CPMS

Operation of the unit while troubleshooting a malfunction of the CPMS is acceptable. Possible indications of a malfunction include, but are not limited to:

- Temperatures out of range (high or low)
- Failure to generate daily printouts of the logs
- Erroneous or nonsensical data on the printed logs
- Failure of the visual display of temperatures from the SCADA

3.6.1 Recordkeeping and Reporting

Logs documenting the malfunction of the CPMS, immediate actions and corrective actions shall be taken in accordance with Section 5.3 of this plan. Additionally, the Environmental Department shall be notified immediately of the malfunction.

3.6.2 Troubleshooting a Malfunctioning CPMS

Overisel shall troubleshoot the CPMS according with the manufacturer's recommendations, company policy and procedures and good operating practices.

4.0 CPMS Operation and Maintenance

4.1 CPMS Operation

The CPMS will be in continuous operation whenever the monitored glycol dehydrator operates. Data will be collected as follows:

- Record the thermal oxidizer combustion chamber temperature at least once every 15 minutes, not including periods of startup, shutdown or malfunction
- Average the 15-minute data on an hourly basis.
- Calculate the daily average for each operating day.
- Compare the daily average to the minimum operating parameter value.

Alarms and shutdowns shall be provided as follows:

- The CPMS shall alarm when the thermal oxidizer combustion chamber temperature reaches 1480°F decreasing or 1800°F increasing.
- The unit will shut down if the thermal oxidizer combustion chamber temperature exceeds 1800°F.

4.2 CPMS Maintenance

4.2.1 Preventative Maintenance

CPMS maintenance will be conducted in according with company policy and procedures. Additionally, daily station walkdowns take place to check on obvious signs of physical failure of the equipment.

4.2.2 Corrective Maintenance

Corrective maintenance will be conducted according to manufacturer's recommendations, company policy and procedures, and good operating practices, in a manner consistent with safety and good air pollution control practices for minimizing emissions in the event of a CPMS malfunction, impending malfunction, or out-of-control CPMS. In lieu of conducting immediate corrective maintenance, operations may shutdown the associated engine until such time as corrective maintenance can be performed.

4.3 Spare Parts

A set list of spare parts of the CPMS will not be maintained in inventory. If a spare part for the system is not available when needed, the affected equipment will be shut down until such time as the necessary spare part can be procured and installed.

5.0 Data Management

5.1 Valid Data

Valid data is defined as data not "recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities". Specifically, valid data is comprised of:

- 15-minute readings
- Hourly averages consisting of valid 15-minute readings
- Daily averages consisting of valid hourly averages

5.2 Data Review

Operations shall review the CPMS daily reports to:

- Confirm all required data was collected
- Identify any data collected that was not valid data, as defined above
- Confirm that no exceedances of the average daily temperature limits occurred

Missing data may be recovered by:

- Forcing a new printout
- Recover data from SCADA/PLC
- Chart recorder

If missing data is unrecoverable (e.g., due to power failure), exceedances are identified, or non-valid data is identified, the Environmental Services Department shall be notified immediately. Additionally, in the event of repeated instances of missing data, whether recoverable or unrecoverable, over a short duration of time, an investigation as to the causes is to be conducted.

5.3 Recordkeeping

The following records collected by the CPMS are required to be retained for a period of five years. At a minimum, the most recent two-year data shall be available on site. The other three years data may be stored off site, but should be accessible within a reasonable time. These records can be retained either electronically, via hard copy, or both, and shall be easily accessible.

- Each daily average
- Each hourly average used to calculate the daily average values
- Each 15-minute data point used to calculate hourly averages
- The algorithm/calculation procedure used to reduce data
- All readings taken during periods of CPMS breakdowns and out-of-control periods

Additionally, documentation of the following shall be retained regarding the CPMS:

- The date and time identifying each period during which the CPMS was inoperative
- The date and time identifying each period during which the CPMS was out-of-control
- The date and time of commencement and completion of each time period where the CMPS daily average temperature was out of the specified limits in this plan
- The nature and cause of any malfunction (if known)
- The corrective action taken or preventative measures adopted

- The nature of the repairs or adjustments to the CPMS that was inoperative or out of control
- The total process operating time during the reporting period
- Documentation of any QA/QC procedures performed for CPMS

5.4 Reports

5.4.1 Daily Data Reports

A daily report for each unit shall be generated and printed after midnight for the previous calendar day. The report shall include, at a minimum, the following:

- Each 15-minute data sample of the thermal oxidizer combustion chamber temperature
- Hourly averages of the thermal oxidizer combustion chamber temperature
- Daily averages of the thermal oxidizer combustion chamber temperature

5.4.2 Compliance Reports

The following compliance notifications/reports are required:

- Immediate notifications of non-compliance
- Semiannual reports and annual compliance reports
- Notification of malfunctioning and out-of-control CPMS events
- Notification of intent to conduct performance test
- Notification of compliance status at the completion of performance tests

6.0 Program of corrective action for a malfunctioning CPMS

The CPMS (thermocouple and SCADA system) is required to measure thermal oxidizer combustion chamber temperature. This temperature must be monitored continuously at all times the glycol dehydration units are operating.

NOTE: Malfunction events do not include events caused, in part, by poor maintenance or careless operation.

Possible Malfunction Events:

- SCADA failure
- Thermocouple Not Working

SCADA Failure

Event Definition: The Supervisory Control and Data Acquisition (SCADA) system uses Programmable Logic Controller (PLC) to monitor and control systems. The PLC takes a signal from the thermocouple, located in the combustion chamber temperature of the thermal oxidizer, and converts it to engineering units to be sent to the HMI's and to the SCADA computer. A Historian computer is connected to the SCADA network using Ethernet. In the event of a failure of the Historian computer, or the network connection, a chart recorder is used as a redundant backup.

Event Procedures:

If the SCADA System is not working, restore system operation as soon as practical. Procedures for this event may include:

- Record date & time of event beginning.
- Troubleshoot per manufacturer's recommendations and company policies and procedures, including reinstallation of software, inspection/repair of power or communications connections and wiring, if required.
- Confirm restoration of data acquisition system operation. Record date & time of event ending
- Complete log and prepare Inlet Temperature Event Checklist to document actions taken to respond to this malfunction.

Thermocouple Not Working or Working Improperly

Event Definition: Thermocouple not working, or working improperly

Event Procedures:

If the thermocouple is not working or working improperly, restore system operation as soon as practical. Procedures for this event may include:

- Record date & time of event beginning.
- Thermocouple input failure will be logged
- Conduct troubleshooting per manufacturer's instructions.
- Identify required adjustment, repair, or replacement, per manufacturer instructions and company policies and procedures. Complete required actions.
- Thermocouples cannot be calibrated. Once replaced, the new thermocouple will be checked for accuracy by using the standard thermocouple testing method (refer to Sections 3.2 and 3.2.1).
- Repair information will be on the inlet temperature event checklist

ATTACHMENT 1

CPMS Event Checklist

Combustion Chamber Temperature Event Checklist

Completed by:_____ **Date:**_____

Type of Event:

- ☐ **Thermocouple Not Working**
- ☐ **Other***_____

Thermocouple Not Working

- **Date & Time Noted TC Not Working:**_____
- **Data & Time Last Data Recorded:**_____
- **Date & Time Recorder Operation Restored:**_____
- **Reason for Recorder Failure, if known:**_____

_____

_____

- **Did you follow manufacturer's procedures for troubleshooting?** ☐ **YES** ☐ **NO***
- **Did you repair or replace the data recorder?** ☐ **REPAIR** ☐ **REPLACE**
- **Did you re-calibrate per manufacturer procedures?** ☐ **YES** ☐ **NO***

Other*:

Describe what happened:

_____

_____

_____

When did this event begin:_____

When did this event end: _____

Describe the actions you took to respond:

_____

_____

_____

_____