MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

EFFECTIVE DATE: July 6, 2015

ISSUED TO:

DCP Antrim Gas, LLC South Chester Antrim CO2 Removal Facility

State Registration Number (SRN): N2940

LOCATED AT:

6250 Old State Road, Johannesburg, Otsego County, Michigan 49751

RENEWABLE OPERATING PERMIT

Permit Number:

MI-ROP-N2940-2015

Expiration Date:

July 6, 2020

Administratively Complete ROP Renewal Application Due Between: January 6, 2019 and January 6, 2020

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-N2940-2015

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

Janis Ransom, Cadillac District Supervisor

TABLE OF CONTENTS

AUTHORITY AND ENFORCEABILITY	3
A. GENERAL CONDITIONS	4
Permit Enforceability	
General Provisions	
Equipment & Design	
Emission Limits	
Testing/Sampling	
Monitoring/Recordkeeping	€
Certification & Reporting	6
Permit Shield	
Revisions	
Reopenings	
RenewalsStratospheric Ozone Protection	
Risk Management Plan	
Emission Trading	
Permit To Install (PTI)	10
B. SOURCE-WIDE CONDITIONS	
C. EMISSION UNIT CONDITIONS	
EMISSION UNIT SUMMARY TABLE	12
EUPLANT6AMINE	14
D. FLEXIBLE GROUP CONDITIONS	16
FLEXIBLE GROUP SUMMARY TABLE	16
FGENGINES	
FGMACTZZZZ	
FGTURB1AND2	22
FGGEN6789	
FGPLANTRA	
FGPLANTPH	
FGGD01	33
E. NON-APPLICABLE REQUIREMENTS	36
APPENDICES	37
Appendix 1. Abbreviations and Acronyms	37
Appendix 2. Schedule of Compliance	
Appendix 3. Monitoring Requirements	38
Appendix 4. Recordkeeping	38
Appendix 5. Testing Procedures	38
Appendix 6. Permits to Install	38
Appendix 7. Emission Calculations	39
Appendix 8. Reporting	39

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 are identified for each ROP term or condition. All terms and conditions that are included in a PTI, are streamlined, subsumed and/or are state-only enforceable will be noted as such.

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

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

A. GENERAL CONDITIONS

Permit Enforceability

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

General Provisions

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

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. (R 336.1213(1)(f))

- 7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. (R 336.1213(1)(g))
- 8. This ROP does not convey any property rights or any exclusive privilege. (R 336.1213(1)(h))

Equipment & Design

- 9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2).² (R 336.1370)
- 10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. (R 336.1910)

Emission Limits

- 11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following:" ² (R 336.1301(1))
 - a. A 6-minute average of 20 % opacity, except for one 6-minute average per hour of not more than 27 % opacity.
 - b. A limit specified by an applicable federal new source performance standard.

The grading of visible emissions shall be determined in accordance with Rule 303.

- 12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
 - 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. (R 336.1901(b))

Testing/Sampling

- 13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).² (R 336.2001)
- 14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. (R 336.2001(2), R 336.2001(3), R 336.2003(1))
- 15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. (R 336.2001(5))

Monitoring/Recordkeeping

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

Certification & Reporting

- 18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which 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)):

 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.² (R 336.1912)

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. (R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))

a. The applicable requirements are included and are specifically identified in the ROP.

b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

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

27. Nothing in this ROP shall alter or affect any of the following:

- a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. (R 336.1213(6)(b)(i))
- b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. (R 336.1213(6)(b)(ii))
- c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. (R 336.1213(6)(b)(iii))

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

Revisions

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

Reopenings

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

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. (R 336.1210(8))

Stratospheric Ozone Protection

- 36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F.
- 37. If the permittee is subject to 40 CFR, Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

- 38. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR, Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).
- 39. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall comply with the requirements of 40 CFR, Part 68, no later than the latest of the following dates as provided in 40 CFR 68.10(a):
 - a. June 21, 1999,
 - b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
 - c. The date on which a regulated substance is first present above a threshold quantity in a process.
- 40. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR, Part 68.
- 41. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). (40 CFR, Part 68)

Emission Trading

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

Permit To Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.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 of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, MDEQ, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.² (R 336.1201(4))

Footnotes:

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

B. SOURCE-WIDE CONDITIONS

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

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

C. EMISSION UNIT CONDITIONS

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

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

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUENGINE1	Natural gas-fired 930 HP Caterpillar 399 TA rich burn engine equipped with a 3-way catalyst	06/01/1996	FGENGINES FGMACTZZZZ
EUENGINE2	Natural gas-fired 930 HP Caterpillar 399 TA rich burn engine equipped with a 3-way catalyst	06/01/1996	FGENGINES FGMACTZZZZ
EUTUR01	Natural gas fired Centaur 40-T4700 turbine with a 3.5 MW nameplate capacity	06/01/1997	FGTURB1AND2
EUTUR02	Natural gas fired Centaur 40-T4700 turbine with a 3.5 MW nameplate capacity	06/01/1997	FGTURB1AND2
EUGEN06	1,150 hp natural gas fired Caterpillar 3516 lean burn generator engine	06/01/1995	FGGEN6789 FGMACTZZZZ
EUGEN07	1,150 hp natural gas fired Caterpillar 3516 lean burn generator engine	06/01/1995	FGGEN6789 FGMACTZZZZ
EUGEN08	1,150 hp natural gas fired Caterpillar 3516 lean burn generator engine	06/01/1995	FGGEN6789 FGMACTZZZZ
EUGEN09	1,150 hp natural gas fired Caterpillar 3516 lean burn generator engine	06/01/1995	FGGEN6789 FGMACTZZZZ
EUPLANT1HEATER	Plant 1 natural gas-fired, 40 MMBTU/hr heat input, heat media heater	04/01/1991	FGPLANTPH
EUPLANT2HEATER	Plant 2 natural gas-fired, 51.231 MMBTU/hr heat input, heat media heater	03/01/1994	FGPLANTPH
EUPLANT3HEATER	Plant 3 natural gas-fired, 51.231 MMBTU/hr heat input, heat media heater	06/01/1995	FGPLANTPH
EUPLANT4HEATER	Plant 4 natural gas-fired, 51.231 MMBTU/hr heat input, heat media heater	01/01/1996	FGPLANTPH
EUPLANT5HEATER	Plant 5 natural gas-fired, 51.231 MMBTU/hr heat input, heat media heater	06/01/1997	FGPLANTPH
EUPLANT6HEATER	Plant 6 natural gas-fired, 27 MMBTU/hr heat input, heat media heater	06/01/1996	FGPLANTPH
EUPLANT1AMINE	Plant 1 methyldiethanolamine (MDEA) process for removing CO ₂ from natural gas at a rate of 60 MMSCFD	04/01/1991	FGPLANTRA
EUPLANT2AMINE	Plant 2 MDEA process for removing CO ₂ from natural gas at a rate of 70 MMSCFD	03/01/1994	FGPLANTRA
EUPLANT3AMINE	Plant 3 MDEA process for removing CO₂ from natural gas at a rate of 70 MMSCFD	06/01/1995	FGPLANTRA
EUPLANT4AMINE	Plant 4 MDEA process for removing CO ₂ from natural gas at a rate of 70 MMSCFD	01/01/1996	FGPLANTRA

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUPLANT5AMINE	Plant 5 MDEA process for removing CO ₂ from natural gas at a rate of 70 MMSCFD	06/01/1997	FGPLANTRA
EUPLANT6AMINE	Plant 6 MDEA process for removing CO ₂ from natural gas at a rate of 35 MMSCFD	06/01/1996	NA
EUP1DEHY	Plant 1 triethylene glycol dehydrator	04/01/1991	FGGD01
EUP2DEHY	Plant 2 triethylene glycol dehydrator	03/01/1994	FGGD01
EUP3DEHY	Plant 3 triethylene glycol dehydrator	06/01/1995	FGGD01
EUP4DEHY	Plant 4 triethylene glycol dehydrator	01/01/1996	FGGD01
EUP5DEHY	Plant 5 triethylene glycol dehydrator	06/01/1997	FGGD01
EUP6DEHY	Plant 6 triethylene glycol dehydrator	06/01/1996	FGGD01

EUPLANT6AMINE EMISSION UNIT CONDITIONS

DESCRIPTION

Plant 6 MDEA process for removing CO₂ from natural gas at a rate of 35 MMSCFD.

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.	CO ₂	574,250 pounds per day ¹	NA	EUPLANT6AMINE	SC VI.3	R 336.1901

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

 The permittee shall not process more than 4,950,000 cubic feet of CO₂ in EUPLANT6AMINE per day.¹ (R 336.1901)

IV. DESIGN/EQUIPMENT PARAMETER(S)

- The permittee shall install, calibrate, maintain, and operate a device to continuously monitor and record the flow rate of natural gas entering EUPLANT6AMINE.¹ (R 336.1901)
- The permittee shall install, calibrate, maintain, and operate a device to monitor and record the CO₂ content of the gas entering EUPLANT6AMINE on a daily basis.¹ (R 336.1901)

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

 The permittee shall monitor and record the flow rate of natural gas entering the plant on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division.¹ (R 336.1901)

 The permittee shall monitor and record the CO₂ content of the gas entering the EUPLANT6AMINE on a daily basis.¹ (R 336.1901)

- 3. The permittee shall calculate and record the CO₂ emission rate from EUPLANT6AMINE for each calendar day using a method acceptable to the Air Quality Division. (R 336.1901)
- 4. The permittee shall calculate and record the amount of CO₂ processed for each calendar day using a method acceptable to the Air Quality Division. (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
SVCO2	12 ¹	50 ¹	R 336.1901

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

D. FLEXIBLE GROUP CONDITIONS

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

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

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGENGINES	Two natural gas-fired 930 HP Caterpillar 399 TA rich	EUENGINE1
FGENGINES	burn engines equipped with 3-way catalysts	EUENGINE2
		EUENGINE1
	Two natural gas-fired 930 HP Caterpillar 399 TA rich	EUENGINE2
FGMACTZZZZ	burn engines equipped with 3-way catalysts and four	EUGEN06
, , , , , , , , , , , , , , , , , , , ,	natural gas-fired 1,150 HP Caterpillar 3516 lean burn	EUGEN07
	generator engines	EUGEN08
		EUGEN09
FGTURB1AND2	Two natural gas fired Centaur 40-T4700 turbines; each	EUTUR01
	turbine has a 3.5 MW name plate capacity	EUTUR02
		EUGEN06
FGGEN6789	Four 1,150 hp natural gas fired Caterpillar 3516 lean	EUGEN07
	burn generator engines	EUGEN08
		EUGEN09
4		EUPLANT1AMINE
FOR ANTRA	Five MDEA processes for removing CO ₂ from natural	EUPLANT2AMINE
FGPLANTRA	gas	EUPLANT3AMINE
9		EUPLANT4AMINE
		EUPLANT5AMINE
	Four natural gas fired heat media heaters, each with a	EUPLANT1HEATER
	rated capacity of 51.231 MMBTU/hr heat input; one	EUPLANT2HEATER
FGPLANTPH	natural gas fired heat media heater with a rated	EUPLANT3HEATER
	capacity of 40 MMBTU/hr heat input; one natural gas fired heat media heater with a rated capacity of 27	EUPLANT4HEATER
	MMBTU/hr heat input	EUPLANT5HEATER
	MINID I OMI Meat Imput	EUPLANT6HEATER EUP1DEHY
		EUP2DEHY
		EUP3DEHY
FGGD01	Six triethylene glycol dehydrators	EUP4DEHY
		EUP5DEHY
		EUP6DEHY

FGENGINES FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two natural gas-fired 930 HP Caterpillar 399 TA rich burn engines equipped with 3-way catalysts.

Emission Units: EUENGINE1, EUENGINE2

POLLUTION CONTROL EQUIPMENT

3-way catalyst

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO _x	18 tpy ²	12 month rolling time period as determined at the end of each calendar month	FGENGINES	SC VI.1	R 336.1205(3) 40 CFR 52.21(c) and (d)

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 not operate EUENGINE1 and EUENGINE2 unless the 3-way catalysts are installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes performing the manufacturer's recommended maintenance on the catalyst.² (R 336.1205(3), R 336.1910, 40 CFR 52.21(c) and (d))
- 2. The permittee shall not operate FGENGINES unless a malfunction abatement plan, approved by the AQD District Supervisor, is implemented and maintained. (R 336.1910, R 336.1911, R 336.1912)
- 3. The permittee shall calibrate, maintain, and operate a temperature gauge or thermocouple to monitor the operation of each catalyst. The appropriate temperature range defining proper operation of the catalyst shall be identified in the MAP. (R 336.1213(3)(a)(i))
- 4. The permittee shall calibrate, maintain, and operate a differential pressure gauge or manometer to monitor operation of each catalyst. The appropriate differential pressure range defining proper operation of the catalyst shall be identified in the MAP. (R 336.1213(3)(a)(i))
- 5. The permittee shall calibrate, maintain and operate in a satisfactory manner a device to continuously monitor and record the flow rate of natural gas burned in FGENGINES.² (R 336.1205(3), 40 CFR 52.21(c) and (d))

IV. <u>DESIGN/EQUIPMENT PARAMETER(S)</u>

NA

V. TESTING/SAMPLING

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

1. The permittee shall perform testing to establish emission factors for demonstrating compliance with the limit in SC I.1. The testing shall be completed every five years. (R 336.2001, R 336.2003, R 336.2004, R 336.1213(3)(a))

VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall calculate and record, in a satisfactory manner, monthly and 12-month rolling time period NO_x emissions using emission factors derived from the most recent stack test. (R 336.1213(3)(b))
- 2. The permittee shall continuously monitor and record the natural gas usage of FGENGINES.² (R 336.1205(3), 40 CFR 52.21(c) and (d))
- 3. The permittee shall perform maintenance and keep maintenance records for each 3-way catalyst.² (R 336.1205(3), 40 CFR 52.21(c) and (d))
- 4. The permittee shall monitor and record the differential pressure across each 3-way catalyst on a monthly basis. (R 336.1213(3)(b))
- 5. The permittee shall monitor and record the inlet and outlet temperatures of each 3-way catalyst on a daily basis. (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))
- 4. The permittee shall submit two test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. (R 336.1213(3), R 336.2001(3))
- 5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than seven days prior to the anticipated test date. (R 336.2001(4))
- 6. The permittee shall submit two complete test reports of the test results to the AQD, on to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. (R 336.2001(5))

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)

- 1. The MAP shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. At a minimum, the MAP shall include:
 - a. Identification of the equipment and air cleaning device.
 - b. Supervisory personnel responsible for overseeing the inspection, maintenance and repair.
 - c. Description of the items or conditions to be inspected and frequency of the inspections or repairs.
 - d. Description of the equipment and 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.
 - e. Identification of the major replacement parts that shall be maintained in in inventory for quick replacement.
 - f. 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 MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the permittee shall revise the MAP 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 MAP to be inadequate, the District Supervisor may request medication of the plan to address those inadequacies. (R 336.1910, R 336.1911, R 336.1912)

Footnotes:

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

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

FGMACTZZZZ FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two natural gas-fired four-stroke, rich-burn 930 HP Caterpillar 399 TA engines and four natural gas-fired four-stroke, lean-burn Caterpillar 1,150 HP generator engines located in a remote area subject to the requirements of 40 CFR, Part 63, Subpart ZZZZ.

Emission Units: EUENGINE1, EUENGINE2, EUGEN06, EUGEN07, EUGEN08, EUGEN09

POLLUTION CONTROL EQUIPMENT

Three-way catalyst (installed on EUENGINE1 and EUENGINE2)

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 perform the following work practice standards on each engine in FGMACTZZZZ every 2,160 hours of operation or annually, whichever comes first: (40 CFR 63.6603(a))
 - a. Change oil and filter (or utilize oil analysis program as outline in 40 CFR 63.6625(i));
 - b. Inspect spark plugs, and replace as necessary;
 - c. Inspect all hoses and belts, and replace as necessary.
- At all times the permittee must operate and maintain each engine in FGMACTZZZZ, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. (40 CFR 63.6605(b))
- 3. The permittee shall operate and maintain each engine in FGMACTZZZZ according to the manufacturer's emission-related operation and maintenance instructions; or develop and follow their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions. (40 CFR 63.6640(a))
- 4. The permittee shall minimize each engine's time spent at idle during start-up and minimize each engine's start-up time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. (40 CFR 63.6625(h))

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii), 40 CFR63.6660(b))

- 1. In order to be considered a remote stationary engine, as defined in 40 CFR 63.6675, each engine in FGMACTZZZZ must meet the definition of remote stationary engine on the initial compliance date for the engine, October 19, 2013. The permittee must evaluate the status of FGMACTZZZZ engines every 12 months thereafter. (40 CFR 63.6603(f))
- 2. The permittee shall keep records of the initial and annual evaluation of the remote status of each engine in FGMACTZZZZ, based on the definition of remote stationary engines in 40 CFR 63.6675. If the evaluation indicates that any engine in FGMACTZZZZ no longer meets the definition of remote stationary engine, the permittee shall comply with all the requirements for non-emergency spark ignition four-stroke lean-burn and rich-burn engines that are not remote within one year of evaluation. (40 CFR 63.6603(f))

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. The permittee shall meet the applicable notification requirements in 40 CFR 63.6645 and in 40 CFR, Part 63, Subpart A. (40 CFR 63.6595(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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

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

FGTURB1AND2 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two natural gas fired Centaur 40-T4700 turbines; each turbine has a 3.5 MW name plate capacity.

Emission Units: EUTUR01, EUTUR02

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO _x	167 ppm _v , corrected to 15 % O₂ on a dry gas basis²	Test protocol*	EUTUR01 EUTUR02	SC V.1	40 CFR 60.332(a)(2) 40 CFR 60.332(c) 40 CFR 60.332(d)
2. NO _x	17.1 pph ²	Test protocol*	EUTUR01 EUTUR02	SC V.1	R 336.1205(1)(a)
3. CO	50 ppm _v , corrected to 15 % O ₂ on a dry gas basis ²	Test protocol*	EUTUR01 EUTUR02	SC V.1	R 336.1205(1)(a)
4. CO	5.3 pph ²	Test protocol*	EUTUR01 EUTUR02	SC V.1	R 336.1205(1)(a)

^{*}Test protocol shall specify averaging time

II. MATERIAL LIMIT(S)

	Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1.	Natural gas	0.8 % by weight total sulfur	NA	FGTURB1AND2	SC VI.1	40 CFR 60.633(b)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall use only sweet natural gas as fuel in FGTURB1and2.² (R 336.1205(1)(a), 40 CFR 52.21(c) and (d))

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall verify NO_x and CO emission rates from each turbine in FGTURB1AND2, by testing at owner's expense, in accordance with Department requirements. The testing shall be completed at least once every five years.² (R 336.2001, R 336.2003, R 336.2004, R 336.1213(3)(a))

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall maintain a record of the gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for gaseous fuel, which specifies the maximum total sulfur content.² (40 CFR 60.634(h)(3)(i), 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))
- 4. The permittee shall submit two test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. (R 336.2001(3))
- 5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than seven days prior to the anticipated test date. (R 336.2001(4))
- 6. The permittee shall submit two complete test reports of the test results to the AQD, on to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. (R 336.2001(5))

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. SVTUR01	48 ²	34 ²	R 336.1205(1)(a)
2. SVTUR02	48 ²	34 ²	R 336.1205(1)(a)

IX. OTHER REQUIREMENT(S)

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 GG, as they apply to each turbine of FGTURB1AND2.² (40 CFR, Part 60, Subparts A & GG)

Footnotes:

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

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

FGGEN6789 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Four 1,150 hp natural gas fired Caterpillar 3516 lean burn generator engines.

Emission Units: EUGEN06, EUGEN07, EUGEN08, EUGEN09

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

	Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1.	NO _x	5.5 pph ²	Test protocol*	EUGEN06 EUGEN07 EUGEN08 EUGEN09	SC V.1 and SC V.2	R 336.1205(1)(a)
2.	NO _X	2.0 tons per month ²	NA	EUGEN06 EUGEN07 EUGEN08 EUGEN09	SC VI.1	R 336.1205(1)(a)
3.	СО	4.0 pph ²	Test protocol*	EUGEN06 EUGEN07 EUGEN08 EUGEN09	SC V.1 and SC V.2	R 336.1205(1)(a)
4.	со	1.5 tons per month ²	NA	EUGEN06 EUGEN07 EUGEN08 EUGEN09	SC VI.1	R 336.1205(1)(a)

^{*}Test protocol shall specify averaging time.

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)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall verify NO_x and CO emission rates from each engine in FGGEN6789, by testing at owner's expense, in accordance with Department requirements. The testing shall be completed at least once every five years. (R 336.2001, R 336.2003, R 336.2004, R 336.1213(3)(a))

2. Within 180 days after restarting EUGEN07, the permittee shall verify NO_x and CO emission rates from EUGEN07, by testing at owner's expense, in accordance with Department requirements. (R 336.2001, R 336.2003, R 336.2004, R 336.1213(3)(a))

VI. MONITORING/RECORDKEEPING

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

- The permittee shall calculate and record NO_x and CO emissions from EUGEN06, EUGEN07, EUGEN08, and EUGEN09, in tons per month, using emission factors based on the most recent testing. The calculations shall be completed within 30 days following the end each the calendar month. (R 336.1213(3)(b))
- 2. The permittee shall maintain records of the daily hours of operation and the daily average generator output, in kilowatts, for each engine in FGGEN6789. (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))
- Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. The permittee shall submit two test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. (R 336.1213(3), R 336.2001(3))
- 5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than seven days prior to the anticipated test date. (R 336.2001(4))
- 6. The permittee shall submit two complete test reports of the test results to the AQD, on to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. (R 336.2001(5))

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID		Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1.	SVGEN06	10 ²	35 ²	R 336.1205(1)(a)
2.	SVGEN07	10 ²	35 ²	R 336.1205(1)(a)
3.	SVGEN08	10 ²	35 ²	R 336.1205(1)(a)
4.	SVGEN09	10 ²	35 ²	R 336.1205(1)(a)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

FGPLANTRA FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Five MDEA processes for removing CO₂ from natural gas.

Emission Units: EUPLANT1AMINE, EUPLANT2AMINE, EUPLANT3AMINE, EUPLANT4AMINE, EUPLANT5AMINE

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

	Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1.	CO ₂	73,343 tons per calendar month ¹	NA	FGPLANTRA	SC VI.3	R 336.1901
2.	Visible emissions	0 % opacity ²	Six minute average	EUPLANT3AMINE EUPLANT4AMINE	SC V.1	R 336.1301(1)(c)

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)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain, and operate a device to continuously monitor and record the CO₂ content of the natural gas entering EUPLANT1AMINE, EUPLANT2AMINE, EUPLANT3AMINE, EUPLANT4AMINE, and EUPLANT5AMINE. (R 336.1213(3)(a))

V. TESTING/SAMPLING

1. The permittee shall perform and record the results of 6-minute non-certified visible emission observations from EUPLANT3AMINE and EUPLANT4AMINE on a daily basis. The visible emission observation shall simply verify the presence of visible emissions and need not follow the procedures specified in USEPA Test Method 9. If visible emissions are observed, the permittee shall immediately initiate and document corrective actions. (R 336.1213(3)(a))

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 CO₂ content of the natural gas entering EUPLANT1AMINE, EUPLANT2AMINE, EUPLANT3AMINE, EUPLANT4AMINE, and EUPLANT5AMINE on a continuous basis. (R 336.1901)

- 2. The permittee shall monitor and record the daily gas processing rate of EUPLANT1AMINE, EUPLANT2AMINE, EUPLANT3AMINE, EUPLANT5AMINE on a continuous basis. (R 336.1901)
- 3. The permittee shall calculate and record the CO₂ emission rate from FGPLANTRA, in tons per calendar month, at the end of every calendar month. (R 336.1901)

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.	SVRA01	16 ¹	75 ¹	R 336.1901
2.	SVRA02	16 ¹	75 ¹	R 336.1901
3.	SVRA03	16 ¹	75 ¹	R 336.1901
4.	SVRA04	16 ¹	75 ¹	R 336.1901
5.	SVRA05	16 ¹	75 ¹	R 336.1901

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

FGPLANTPH FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Four natural gas fired heat media heaters, each with a rated capacity of 51.231 MMBTU/hr heat input; one natural gas fired heat media heater with a rated capacity of 40 MMBTU/hr heat input; one natural gas fired heat media heater with a rated capacity of 27 MMBTU/hr heat input.

Emission Units: EUPLANT1HEATER, EUPLANT2HEATER, EUPLANT3HEATER, EUPLANT4HEATER, EUPLANT6HEATER

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO _x	5.6 pph ²	Test protocol*	EUPLANT1HEATER	SC V.1	R 336.1205(1)(a)
2. NO _x	5.2 pph ²	Test protocol*	EUPLANT2HEATER EUPLANT3HEATER EUPLANT4HEATER EUPLANT5HEATER	SC V.1	R 336.1205(1)(a
3. NO _x	1.9 tons per month ²	NA	EUPLANT2HEATER EUPLANT3HEATER EUPLANT4HEATER EUPLANT5HEATER	SC VI.2	R 336.1205(1)(a)
4. CO	3.0 pph ²	Test protocol*	EUPLANT3HEATER EUPLANT4HEATER EUPLANT5HEATER	SC V.2	R 336.1205(1)(a)
5. CO	1.1 tons per month ²	NA	EUPLANT3HEATER EUPLANT4HEATER EUPLANT5HEATER	SC VI.3	R 336.1205(1)(a)

^{*}Test protocol shall specify averaging time

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)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain, and operate a device to monitor and record the natural gas combusted by EUPLANT1HEATER, EUPLANT2HEATER, EUPLANT3HEATER, EUPLANT4HEATER, EUPLANT5, and EUPLANT6HEATER. (R 336.1213(3)(a))

V. TESTING/SAMPLING

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

- 1. The permittee shall verify NO_x emission rates from EUPLANT1HEATER, EUPLANT2HEATER, EUPLANT4HEATER, and EUPLANT5HEATER, by testing at owner's expense, in accordance with Department requirements. The testing shall be completed at least once every five years. (R 336.2001, R 336.2003, R 336.2004, R 336.1213(3)(a))
- 2. The permittee shall verify CO emission rates from EUPLANT3HEATER, EUPLANT4HEATER, and EUPLANT5HEATER, by testing at owner's expense, in accordance with Department requirements. The testing shall be completed at least once every five years. (R 336.2001, R 336.2003, R 336.2004, R 336.1213(3)(a))

VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall record and maintain records of the amount of natural gas combusted by EUPLANT1HEATER, EUPLANT2HEATER, EUPLANT3HEATER, EUPLANT4HEATER, EUPLANT5HEATER, and EUPLANT6HEATER during each calendar month. (40 CFR 60.48c(g)(2), R 336.1213(3)(b))
- 2. The permittee shall calculate and record NO_x emission rates, in tons per month, from EUPLANT2HEATER, EUPLANT3HEATER, EUPLANT4HEATER, and EUPLANT5HEATER. The calculations shall be completed within 30 days following the end each the calendar month. (R 336.1213(3)(b))
- 3. The permittee shall calculate and record CO emission rates, in tons per month, from EUPLANT3HEATER, EUPLANT4HEATER, and EUPLANT5HEATER. The calculations shall be completed within 30 days following the end each the 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))
- 4. The permittee shall submit two test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. (R 336.1213(3), R 336.2001(3))
- 5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than seven days prior to the anticipated test date. (R 336.2001(4))

6. The permittee shall submit two complete test reports of the test results to the AQD, on to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. (R 336.2001(5))

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVPH01	72 ²	100 ²	R 336.1205(1)(a)
2. SVPH02	72 ²	95 ²	R 336.1205(1)(a)
3. SVPH03	72 ²	95 ²	R 336.1205(1)(a)
4. SVPH04	72 ²	95 ²	R 336.1205(1)(a)
5. SVPH05	72 ²	95 ²	R 336.1205(1)(a)

IX. OTHER REQUIREMENT(S)

 The permittee shall comply with the applicable requirements of 40 CFR, Part 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. (40 CFR, Part 60, Subpart Dc)

Footnotes:

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

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

FGGD01 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Six triethylene glycol dehydrators

Emission Units: EUP1DEHY, EUP2DEHY, EUP3DEHY, EUP4DEHY, EUP5DEHY, EUP6DEHY

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	Fallinment		Underlying Applicable Requirements	
NA	NA	NA	NA	NA NA	NA	

III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall not operate EUP3DEHY and EUP4DEHY unless the flash and processed water tanks are installed and operating properly. A properly operating flash tank will volatilize organic compounds out of the rich glycol stream and route them to the process heater for use as fuel. A properly operating processed water tank will condense VOCs from the glycol reboiler vent stream by reducing the temperature.² (R 336.1702(a))
- 2. The permittee shall not operate EUP1DEHY, EUP2DEHY, EUP5DEHY, and EUP6DEHY unless the flash and processed water tanks are installed and operating properly. A properly operating flash tank will volatilize organic compounds out of the rich glycol stream and route them to the process heater for use as fuel. A properly operating processed water tank will condense VOCs from the glycol reboiler vent stream by reducing the temperature. (R 336.1702(a))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip EUP1DEHY, EUP2DEHY, EUP3DEHY, EUP4DEHY, EUP5DEHY, and EUP6DEHY with a flash tank and processed water tank. (R 336.1702(a))

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

1. If each triethylene glycol dehydrator in FGGD01 meets the exception criteria in 40 CFR 63.764(e)(1)(i) for glycol dehydrators with actual annual average flow rate of natural gas less than 85,000 cubic meters (3,001,746 cubic feet) per day, the actual flow rate of natural gas shall be determined using either of the procedures below:

a. The permittee shall install and operate a monitoring instrument that directly measures natural gas flow rate to the glycol dehydration unit with an accuracy of plus or minus 2 % or better. The permittee shall convert annual natural gas flow rate to a daily average by dividing the annual flow rate by the number of days per year the glycol dehydration unit processed natural gas. (40 CFR 63.772(b)(1)(i))

b. The permittee shall document, to the AQD District Supervisor's satisfaction, the actual annual average natural gas flow rate to the glycol dehydration unit is less than 85,000 cubic meters per day. (40 CFR 63.772(b)(1)(ii))

- 2. As an alternative, if each triethylene glycol dehydrator in FGGD01 meets the exemption criteria in 40 CFR 63.764(e)(1)(ii) for glycol dehydrators with actual average benzene emissions less than 0.90 megagram (0.99 ton) per year, the emissions shall be determined either uncontrolled, or with federally enforceable controls in place and using either of the procedures below:
 - a. The permittee shall determine actual average benzene 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 63.772(b)(2)(i))
 - b. The permittee shall determine an average mass rate of benzene emissions in kilograms per hour through direct measurement using the methods in 40 CFR 63.772(a)(1)(i) or (ii), or an alternative method according to 40 CFR 63.7(f). Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated by year. This result shall be converted to megagrams per year. (40 CFR 63.772(b)(2)(ii))
- 3. If each triethylene glycol dehydrator in FGGD01 complies with the exemption criteria in 40 CFR 63.764(e)(1)(i) for glycol dehydrators with actual annual average flow rate of natural gas less than 85,000 cubic meters (3,001,746 cubic feet) per day, the permittee shall keep records of the actual annual average natural gas throughput (in terms natural gas flow rate to the glycol dehydration unit per day) as determined in accordance with SC VI.1. The permittee shall keep records on file at a location approved by the AQD District Supervisor for a period of at least five years and make it available to the Department upon request. (40 CFR 63.774(d)(1)(i))
- 4. As an alternative to SC VI.1, if each triethylene glycol dehydrator in FGGD01 complies with the exemption criteria in 40CFR 63.764(e)(1)(ii) for glycol dehydrators with the actual average benzene emissions less than 0.90 megagram per year, the permittee shall keep records of the actual average benzene emissions (in terms of benzene emissions per year) as determined in accordance with SC VI.2. The permittee shall keep all records on file at a location approved by the AQD District Supervisor for a period of at least five years and make it available to the Department upon request. (40 CFR 63.774(d)(1)(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
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the National Emissions Standards for Hazardous Air Pollutants, 40 CFR, Part 63, Subpart HH, as they apply to FGGD01. (40 CFR, Part 63, Subpart HH)

<u>Footnotes:</u>

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

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

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.

	ng is an alphabetical listing of abbreviations/acror	MM	Million
AQD	Air Quality Division		
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
СОМ	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 ₂ S	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	%	Percent

^{*}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

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

Appendix 6. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-N2940-2009. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-N2940-2009a is being reissued as Source-Wide PTI No. MI-PTI-N2940-2015

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
535-95D	201100103	EUCHESTER10: Amine plant for removing carbon dioxide from Antrim shale gas. The plant has a glycol dehydration system, a reboiler, and a heater, which appear to be exempt from R 336.1201, and the carbon dioxide removal plant. EUENGINE1: 930 horsepower Caterpillar 399 TA engine equipped with a catalytic converter to reduce emissions. EUENGINE2: 930 horsepower Caterpillar 399 TA engine equipped with a catalytic converter to reduce emissions.	FGENGINES, EUPLANT6AMINE
569-96A	201500049*	Increase the CO emission limits of EUTUR01 and EUTUR02 from 2.2 pph to 5.3 pph.	FGTURB1AND2

Appendix 7. Emission Calculations

Specific emission calculations to be used with monitoring, testing or recordkeeping data are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible group Special Conditions. Therefore, this appendix is not applicable.

Appendix 8. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

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

B. Other Reporting

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

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