

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

EFFECTIVE DATE: December 20, 2017

REVISION DATES: February 21, 2018, October 11, 2018, January 3, 2020

ISSUED TO

Toyota Motor North America R&D (TMNA R&D)

State Registration Number (SRN): N2915

LOCATED AT

1555 and 1588 Woodridge, Ann Arbor, Michigan 48105

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-N2915-2017c

Expiration Date: December 20, 2022

Administratively Complete ROP Renewal Application
Due Between June 20, 2021 and June 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-N2915-2017c

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

Michigan Department of Environment, Great Lakes, and Energy

Scott Miller, Jackson District Supervisor

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AUTHORITY AND ENFORCEABILITY

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

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

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

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

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

A. GENERAL CONDITIONS

Permit Enforceability

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

General Provisions

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

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

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2).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:
 - 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).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))**:
 - 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.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):
- June 21, 1999,
 - Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
 - The date on which a regulated substance is first present above a threshold quantity in a process.
40. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.
41. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR Part 68)**

Emission Trading

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

Permit To Install (PTI)

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

SOURCE-WIDE CONDITIONS

DESCRIPTION

All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.

POLLUTION CONTROL EQUIPMENT

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. CO	249.0 tpy ²	12-month rolling time period as determined at the end of each calendar month.	Source-wide	SC VI.2	R 336.1205(1)(a) & (b)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Total fuel ^D	618,709 gallons/yr ²	12-month rolling time period as determined at the end of each calendar month.	Engines or other vehicle components tested Source-wide	SC VI.2	R 336.1205(1)(a) & (b), R 336.1225
1a. Total fuel	516,830 gallons/yr of SC II.1 ²	12-month rolling time period as determined at the end of each calendar month.	Engines or other vehicle components tested in FGULEV, FGCONTROLLED, and FGUNCONTROLLED	SC VI.2	R 336.1205(1)(a) & (b)
1b. Total fuel	448,718 gallons/yr of SC II.1a ²	12-month rolling time period as determined at the end of each calendar month.	Engines or other vehicle components tested in FGCONTROLLED, and FGUNCONTROLLED	SC VI.2	R 336.1205(1)(a) & (b)
1c. Total fuel	23,500 gallons/yr of SC II.1b ²	12-month rolling time period as determined at the end of each calendar month.	Engines or other vehicle components tested in FGUNCONTROLLED	SC VI.2	R 336.1205(1)(a) & (b), R 336.1225
2. Natural Gas	525.40 MMscf/yr ²	12-month rolling time period as determined at the end of each calendar month.	Source-wide	SC VI.2	R 336.1205(1)(a) & (b)

^D The emission factor for engines or other vehicle components tested with diesel fuel is less than the emission factors listed for FGULEV, FGULEV, FGCONTROLLED, and FGUNCONTROLLED; therefore, diesel fuel use in engine or other vehicle component testing is restricted with SC II.1.

1. The permittee shall only burn unleaded gasoline (with ethanol contents less than 20 percent), various ethanol and gasoline blends (with ethanol contents from 20 to 85 percent by volume), and ethanol fuel (fuel with an ethanol content of at least 85 percent by volume) in engines or other vehicle components tested Source-wide, with the exception of engines or other vehicle components tested in EU-ANECHOIC, EU-ENVIRON, EU-CHDY1, EU-CHDY2, EU-CHDY3, EU-CHDY4, EU-CHDY5, EU-CHDY6, EU-CHDY7, EU-CHDY8, EU-CHDY9, and EU-CHDY10, which may also burn diesel.² (R 336.1205(1)(a) & (b), R 336.1224, R 336.1225, R 336.1702, 40 CFR 52.21(c) & (d))

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

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 complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² (R 336.1205(1)(a) & (b), R 336.1225)
2. The permittee shall keep the following information on a monthly basis for the Stationary Source:
 - a. Gallons of the total fuel used per month and 12-month rolling time period as determined at the end of each calendar month in each total fuel category (SC II.1, SC II.1a, SC II.1b, and SC II.1c).
 - b. MMscf of natural gas used month and 12-month rolling time period as determined at the end of each calendar month.
 - c. Records of operation sufficient enough to calculate emissions from engines.
 - d. CO emission calculations determining the monthly emission rate in tons per calendar month per the calculation method prescribed in Appendix 7.
 - e. CO emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month per the calculation method prescribed in Appendix 7.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.² (R 336.1205(1)(a) & (b), R 336.1225)

3. The permittee shall keep, in a satisfactory manner, records showing the annual potential to emit calculations for CO, in tons per year, for Source-Wide. The permittee shall update the potential to emit calculation whenever a new permitted or exempt emission unit is installed, whenever a permitted, exempt, or grandfathered emission unit is modified or removed, or whenever emission factors change for installed equipment. Potential to emit calculations shall be based on the maximum operational capacity of the equipment operated for the entire year, except they may account for applicable permit requirements or applicable laws or rules limiting the potential to emit. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² (R 336.1205(1)(a) & (b))

See Appendix 7

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

1. Stacks are defined in flexible group special conditions.

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).

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
EU-ANECHOIC	Anechoic chamber in the Evaluation building.	06-01-2002	FGULEV, FGLEV
EU-ENVIRON	Environmental chamber in the Evaluation building.	06-01-2002	FGULEV, FGLEV
EUCOLD	Test Cell for fully assembled vehicles and stand-alone engines in Evaluation building with uncontrolled emissions.	03-27-2014	FGUNCONTROLLED
EU-UPDOWN	Up/down Engine test cell in the Powertrain building with an individual production ULEV or LEV catalyst.	05-02-1991/ 03-27-2014	FGULEV, FGLEV, FG-CAM
EU-EG1	Engine test cell 1 in the Powertrain building with an individual catalytic oxidizer.	05-02-1991/ 08-11-2014	FGCONTROLLED, FG-CAM
EU-EG2	Engine test cell 2 in the Powertrain building with an individual catalytic oxidizer.	05-02-1991/ 08-11-2014	FGCONTROLLED, FG-CAM
EU-EG3	Engine test cell 3 in the Powertrain building. Engines tested in this test cell may be equipped with individual production ULEV or LEV catalyst or may be controlled if high speed tests are being performed (due to excessive temperature).	10-01-2008/ 03-27-2014	FGULEV, FGLEV FGUNCONTROLLED, FG-CAM
EU-EG4	Engine test cell 4 in the Powertrain building. Engines tested in this test cell may be equipped with individual production ULEV or LEV catalyst or may be controlled if high speed tests are being performed (due to excessive temperature).	10-16-2014	FGULEV, FGLEV, FGUNCONTROLLED, FG-CAM
EU-EG5	Engine test cell 5 in the Powertrain building with an individual catalytic oxidizer.	10-21-2014	FGCONTROLLED, FG-CAM

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-EG6	Catalyst-aging dynamometer in Powertrain building used to perform tests for accelerated aging and evaluation of development catalysts. Emissions are controlled with an installed catalyst. During fuel-rich high air intake operation a reduced catalyst efficiency may occur.	07-01-2016	FGCONTROLLED, FG-CAM
EU-TM1	Transmission dynamometer 1 in the Powertrain building with an individual catalytic oxidizer.	05-02-1991/ 08-11-2014	FGCONTROLLED, FG-CAM
EU-TM4	Transmission dynamometer 4 in the Powertrain building with an individual catalytic oxidizer.	11-11-2014/ 01-23-2015	FGCONTROLLED-FG- CAM
EU-TM5	Transmission dynamometer 5 in the Powertrain building with an individual catalytic oxidizer.	11-07-2014	FGCONTROLLED, FG-CAM
EU-EG7	Engine test cell 7 in the Evaluation building controlled by a thermal oxidizer.	10-26-2018	FGCONTROLLED, FG-CAM
EU-EG8	Engine test cell 8 in the Evaluation building controlled by a thermal oxidizer.	02-20-2018	FGCONTROLLED, FG-CAM
EU-EG9	Engine test cell 9 in the Evaluation building controlled by a thermal oxidizer.	02-26-2018	FGCONTROLLED, FG-CAM
EU-TANK1	12,000 gallon, 3 compartment, underground gasoline storage tank located at the Evaluation building.	08-01-2001	FG-TANKS, FG-GDFMACT
EU-TANK2	5,000 gallon, 2 compartment, underground gasoline storage tank located at the Powertrain building.	07-01-1993	FG-TANKS, FG-GDFMACT
EU-TANK5	15,000 gallon, 3 compartment, above ground fuel storage tank located at the Powertrain building.	10-01-2008	FG-TANKS, FG-GDFMACT
EU-TANK6	12,000 gallon, 3 compartment, aboveground gasoline storage tank located at the Evaluation building.	12-7-2017	FG-TANKS, FG-GDFMACT
EU-TANK7	12,000 gallon, 4 compartment, aboveground gasoline storage tank located at the Evaluation building.	12-7-2017	FG-TANKS, FG-GDFMACT
EU-CHDY1	Chassis dynamometer 1 in the Powertrain building.	06-01-2002/ 03-27-2014	FGULEV, FGLEV
EU-CHDY2	Chassis dynamometer 2 in the Powertrain building.	06-01-2002/ 03-27-2014	FGULEV, FGLEV
EU-CHDY3	Chassis dynamometer 3 in the Powertrain building.	06-01-2002/ 03-27-2014	FGULEV, FGLEV
EU-CHDY4	Chassis dynamometer 4 in the Powertrain building.	06-01-2002/ 03-27-2014	FGULEV, FGLEV
EU-CHDY5	Chassis dynamometer 5 in the Powertrain building.	10-01-2008/ 03-27-2014	FGULEV, FGLEV
EU-CHDY6	Chassis dynamometer 6 in the Powertrain building.	10-01-2008/ 03-27-2014	FGULEV, FGLEV, FGUNCONTROLLED
EU-CHDY7	Chassis dynamometer 7 in the Evaluation building.	05-15-2018	FGULEV, FGLEV, FGUNCONTROLLED

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-CHDY8	Chassis dynamometer 8 in the Evaluation building.	04-18-2018	FGULEV, FGLEV, FGUNCONTROLLED
EU-CHDY9	Chassis dynamometer 9 in the Evaluation building.	06-18-2018	FGULEV, FGLEV
EU-CHDY10	Chassis dynamometer 10 in the Evaluation building.	06-04-2018	FGULEV, FGLEV
EU-GENSET1	1,573 bhp (1,141 kW) natural gas-fired engine generator equipped with an oxidizing catalyst and LEANOX air to fuel controllers.	11-20-2017	FG-GENSETS
EU-GENSET2	1,573 bhp (1,141 kW) natural gas-fired engine generator equipped with an oxidizing catalyst and LEANOX air to fuel controllers.	11-20-2017	FG-GENSETS
EU-EMERGEN	Rule 285(2)(g) exempt, existing, natural gas fired emergency, spark-ignition (SI) reciprocating internal combustion engine (RICE) 892 horsepower located at the Evaluation building.	Prior to 06-12-2006	FG-RICEMACT
EU-PAINTBOOTH	Hand spray paint booth for small automobile parts, equipped with filters and exhaust stack in the Evaluation building	05-02-1991	FG-RULE287(2)(c)
EU-COLDCLEAN_PT1 EU-COLDCLEAN_PT2	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	NA	FG-COLD CLEANERS

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
FG-CAM	This flexible group consists of all compliance assurance monitoring (CAM) requirements, pursuant to 40 CFR Part 64, for all existing emission units and/or flexible groups that meet the applicable requirements for achieving compliance.	EU-EG6 EU-UPDOWN EU-EG1, EU-EG2, EU-EG3, EU-EG4, EU-EG5, EU-TM1, EU-TM4, EU-TM5, EU-EG7, EU-EG8, EU-EG9
FGULEV	Engines or other vehicle components tested under this flexible group meet ULEV emission standards.	EU-ANECHOIC, EU-ENVIRON, EU-UPDOWN, EU-EG3, EU-EG4, EU-CHDY1, EU-CHDY2, EU-CHDY3, EU-CHDY4, EU-CHDY5, EU-CHDY6, EU-CHDY7, EU-CHDY8, EU-CHDY9, EU-CHDY10
FGLEV	Engines or other vehicle components tested under this flexible group meet LEV emission standards.	EU-ANECHOIC, EU-ENVIRON, EU-UPDOWN, EU-EG3, EU-EG4, EU-CHDY1, EU-CHDY2, EU-CHDY3, EU-CHDY4, EU-CHDY5, EU-CHDY6, EU-CHDY7, EU-CHDY8, EU-CHDY9, EU-CHDY10

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGCONTROLLED	Engines tested under this flexible group are controlled through either catalytic or thermal oxidation.	EU-EG6, EU-EG1, EU-EG2, EU-EG5, EU-TM1, EU-TM4, EU-TM5, EU-EG7, EU-EG8, EU-EG9
FGUNCONTROLLED	Engines or other vehicle components tested under this flexible group have uncontrolled emissions.	EU-COLD, EU-EG3, EU-EG4, EU-CHDY6, EU-CHDY7
FG-TANKS	One 12,000 gallon, three compartment underground fuel storage tank; one 5,000 gallon, two compartment underground storage tank; one 15,000 gallon, three compartment aboveground storage tank; one 12,000 gallon, three compartment aboveground storage tank; and one 12,000 gallon four compartment aboveground storage tank.	EU-TANK1 EU-TANK2 EU-TANK5 EU-TANK6 EU-TANK7
FG-GENSETS	Two natural gas-fired engine generators, each equipped with an oxidizing catalyst and LEANOX air to fuel controllers. (PTI No. 186-13C)	EU-GENSET1 EU-GENSET2
FG-GDFMACT	National Emission Standard for Hazardous Air Pollutants for Gasoline Dispensing Facilities at Area Sources. Area Source Template Table for gasoline dispensing storage tanks.	EU-TANK1 EU-TANK2 EU-TANK5 EU-TANK6 EU-TANK7
FG-RICEMACT	National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT) at Area and Major Sources. Area Source Template Table for a Rule 285(g) exempt, existing, natural gas fired, spark-ignition (SI) RICE.	EU-EMERGEN
FG-RULE287(2)(c)	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 287(2)(c).	EU-PAINTBOOTH
FG-COLD CLEANERS	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	EU-COLDCLEAN_PT1 EU-COLDCLEAN_PT2

**FG-CAM
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

This flexible group consists of all compliance assurance monitoring (CAM) requirements, pursuant to 40 CFR Part 64, for all existing emission units and/or flexible groups that meet the applicable requirements for achieving compliance.

Emission Unit: EU-UPDOWN, EU-EG1, EU-EG2, EU-EG3, EU-EG4, EU-EG5, EU-EG6, EU-TM1, EU-TM4, EU-TM5, EU-EG7, EU-EG8, EU-EG9

POLLUTION CONTROL EQUIPMENT

Each engine dynamometer is equipped with catalyst control system (CCS): EU-EG1, EU-EG2, EU-EG5, EU-TM1, EU-TM4, EU-TM5

Controlled by a shared thermal oxidizer (TO): EU-EG7, EU-EG8, EU-EG9

Each engine dynamometer is equipped with individual catalysts: EU-UPDOWN, EU-EG3, EU-EG4, EU-EG6

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)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall replace each CCS thermocouple annually, or as needed, whichever comes first. **(40 CFR 64.6(c)(1)(iii))**
2. The permittee shall replace each individual catalyst thermocouple used for monitoring the 1st inline catalyst inlet temperature, the last inline catalyst outlet, or catalyst bed temperature as needed.

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. When the engine dynamometers in EU-UPDOWN, EU-EG3, EU-EG4, and EU-EG6 are operating in controlled mode, the permittee shall continuously monitor each 1st inline or last –inline individual catalyst inlet, the last inline catalyst, outlet or bed temperature, respectively, and record once per day while in operation as an indicator of proper operation of the individual catalyst. The indicator range is a maximum temperature of 1,200°C . An excursion is defined as operating above 1,200°C. **(40 CFR 64.6(c)(1)(i and ii))**
2. When the engine dynamometers in EU-EG1, EU-EG2, EU-EG5, EU-TM1, EU-TM4, and EU-TM5 are operating in controlled mode, the permittee shall continuously monitor each CCS inlet and outlet temperature and record once per day while in operation as an indicator of proper operation of the catalytic oxidizers. The indicator range is a temperature between 250°C, based on an hourly average, and the maximum specified by the manufacturer. In lieu of meeting the minimum temperature, the permittee may elect to operate at an hourly fuel consumption less than or equal to 19 liters. An excursion is defined as operating outside of the indicator range for an hour or more. For test durations under an hour, the actual catalyst inlet or outlet temperature may be used. **(40 CFR 64.6(c)(1)(i and ii))**
3. When any of the engine dynamometers in EU-EG7, EU-EG8, and EU-EG9 are operating, the permittee shall continuously monitor the combustion chamber temperature of the TO and record every 15 minutes for an hourly average as an indicator of proper operation of the TO. The indicator range is a minimum temperature of 1,425°F. An excursion is defined as an hourly average less than 1,425°F. **(40 CFR 64.6(c)(1)(i and ii))**
4. Excursions are departures from the indicator ranges identified in SC. VI.1, 2 or 3. **(40 CFR 64.6(c)(2))**
5. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the engine dynamometer and applicable control device to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). **(40 CFR 64.7(d))**
6. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the engine dynamometers are operating in controlled mode. Data recorded during operation of the engines in permitted uncontrolled mode, monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**
7. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
8. The permittee shall maintain daily records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**
9. The permittee shall maintain documentation showing hourly fuel consumption is less than 19 liters (5 gallons) when the catalyst does not achieve the minimum average temperature. **(40 CFR 64.9(b)(1))**
10. The permittee shall replace the catalyst in each CCS according to the manufacturer's recommendations. **(40 CFR 64.6(c)(1)(iii))**

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. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR 64.9(a)(2)(i))**
5. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**

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 applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**
2. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification to the part 70 or 71 permit to address the necessary monitoring changes. Such a modification may include but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**

FGULEV FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Engines or other vehicle components tested under this flexible group meet ULEV emission standards.

Emission Unit: EU-ANECHOIC, EU-ENVIRON, EU-UPDOWN, EU-EG3, EU-EG4, EU-CHDY1, EU-CHDY2, EU-CHDY3, EU-CHDY4, EU-CHDY5, EU-CHDY6, EU-CHDY7, EU-CHDY8, EU-CHDY9, EU-CHDY10

POLLUTION CONTROL EQUIPMENT

Engines equipped with individual production ULEV catalyst.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine or other vehicle component tested within FGULEV with a catalytic converter that meets the EPA ULEV standards.² **(R 336.1205(1)(a) & (b), R 336.1224, R 336.1225, R 336.1702, R 336.1910, 40 CFR 52.21(d))**

V. TESTING/SAMPLING

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

1. Upon request by the AQD District Supervisor, the permittee shall verify the CO emission rate of 187 lb per 1,000 gallon from a representative engine in FGULEV by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² **(R 336.1205(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(d))**
2. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep, in a satisfactory manner, all test reports for FGULEV, as required by SC V.1, on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(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))**
4. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**
5. If testing results in emission factors above the listed emission factor in SC V.1, the permittee shall submit notification of the high results, an analysis of the circumstances that revolved around the high tested values, and how the calculation of the facility-wide emission limit is affected. The notification shall be submitted within 90 days following the last date of the test.² **(R 336.1205(1)(a) & (b), 40 CFR 52.21(d))**

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-ANECHOIC	14 ²	46 ²	R 336.1225, 40 CFR 52.21(c) &(d)
2. SV-ENVIRON	16 ²	46 ²	R 336.1225, 40 CFR 52.21(c) &(d)
3. SV-MERGED ^B	36 ²	57 ²	R 336.1225, 40 CFR 52.21(c) &(d)
4. SV-EG3	18 ²	54 ²	R 336.1225, 40 CFR 52.21(c) &(d)
5. SV-EG4	18 ²	56 ²	R 336.1225, 40 CFR 52.21(c) &(d)
6. SV-CHDY1234 ^C	18 ²	35 ²	R 336.1225, 40 CFR 52.21(c) &(d)
7. SV-CHDY5	12 ²	42 ²	R 336.1225, 40 CFR 52.21(c) &(d)
8. SV-CHDY6	12 ²	42 ²	R 336.1225, 40 CFR 52.21(c) &(d)
9. SV- CHDY7	16 ²	58 ²	R 336.1225, 40 CFR 52.21(c) &(d)
10. SV-CHDY8	18 ²	58 ²	R 336.1225, 40 CFR 52.21(c) &(d)
11. SV-CHDY9	14 ²	58 ²	R 336.1225, 40 CFR 52.21(c) &(d)
12. SV-CHDY10	14 ²	58 ²	R 336.1225, 40 CFR 52.21(c) &(d)

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
^B This stack is associated with EU-UPDOWN, EU-EG1, EU-EG2, and EU-TM1. ^C This stack is associated with EU-CHDY1, EU-CHDY2, EU-CHDY3, and EU-CHDY4.			

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).

FGLEV FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Engines or other vehicle components tested under this flexible group meet LEV emission standards.

Emission Unit: EU-ANECHOIC, EU-ENVIRON, EU-UPDOWN, EU-EG3, EU-EG4, EU-CHDY1, EU-CHDY2, EU-CHDY3, EU-CHDY4, EU-CHDY5, EU-CHDY6, EU-CHDY7, EU-CHDY8, EU-CHDY9, EU-CHDY10

POLLUTION CONTROL EQUIPMENT

Engines equipped with individual production LEV catalyist.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine or other vehicle component tested within FGLEV with a catalytic converter that meets the EPA LEV standards.² **(R 336.1205(1)(a) & (b), R 336.1224, R 336.1225, R 336.1702, R 336.1910, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

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

1. Upon request by the AQD District Supervisor, the permittee shall verify the CO emission rate of 234 lb per 1,000 gallon from a representative engine in FGLEV by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² **(R 336.1205(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**
2. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep, in a satisfactory manner, all test reports for FGULEV, as required by SC V.1, on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (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))**
4. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**
5. If testing results in emission factors above the listed emission factor in SC V.1, the permittee shall submit notification of the high results, an analysis of the circumstances that revolved around the high tested values, and how the calculation of the facility-wide emission limit is affected. The notification shall be submitted within 90 days following the last date of the test.² **(R 336.1205(1)(a) & (b), 40 CFR 52.21(d))**

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-MERGED ^B	36 ²	57 ²	R 336.1225, 40 CFR 52.21(c) &(d)
2. SV-EG3	18 ²	54 ²	R 336.1225, 40 CFR 52.21(c) &(d)
3. SV-EG4	18 ²	56 ²	R 336.1225, 40 CFR 52.21(c) &(d)
4. SV-CHDY1234 ^C	18 ²	35 ²	R 336.1225, 40 CFR 52.21(c) &(d)
5. SV-CHDY5	12 ²	42 ²	R 336.1225, 40 CFR 52.21(c) &(d)
6. SV-CHDY6	12 ²	42 ²	R 336.1225, 40 CFR 52.21(c) &(d)
7. SV- CHDY7	16 ²	58 ²	R 336.1225, 40 CFR 52.21(c) &(d)
8. SV-CHDY8	18 ²	58 ²	R 336.1225, 40 CFR 52.21(c) &(d)
9. SV-CHDY9	14 ²	58 ²	R 336.1225, 40 CFR 52.21(c) &(d)
10. SV-CHDY10	14 ²	58 ²	R 336.1225, 40 CFR 52.21(c) &(d)
^B This stack is associated with EU-UPDOWN, EU-EG1, EU-EG2, and EU-TM1. ^C This stack is associated with EU-CHDY1, EU-CHDY2, EU-CHDY3, and EU-CHDY4.			

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).

FG CONTROLLED FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Engines tested under this flexible group are controlled through either catalytic or thermal oxidation.

Emission Unit: EU-EG6, EU-EG1, EU-EG2, EU-EG5, EU-TM1, EU-TM4, EU-TM5, EU-EG7, EU-EG8, EU-EG9

POLLUTION CONTROL EQUIPMENT

Engines in EU-EG6 are equipped with individual production catalyst; however, during fuel rich high air intake operation a reduced catalyst efficiency may occur. Engines in EU-EG1, EU-EG2, EU-EG5, EU-TM1, EU-TM4, and EU-TM5 are equipped with individual catalytic oxidizers. Engines in EU-EG7, EU-EG8, and EU-EG9 are controlled by a shared thermal oxidizer.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-EG7, EU-EG8, or EU-EG9 unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the thermal oxidizer, is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.² **(R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain EU-EG6 with a catalytic converter. During fuel-rich high air intake operation, a reduced catalyst efficiency occurs.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), R 336.1910, 40 CFR 52.21(d))**
2. The permittee shall equip and maintain each dynamometer in EU-EG1, EU-EG2, EU-EG5, EU-TM1, EU-TM4, and EU-TM5 with a dedicated catalytic oxidizer.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), R 336.1910, 40 CFR 52.21(d))**
3. The permittee shall not operate EU-EG7, EU-EG8, or EU-EG9 unless the thermal oxidizer is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer includes a minimum CO destruction efficiency of 90 percent (by weight), and maintaining a minimum temperature of 1425 °F and a minimum retention time of 0.5 seconds.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), R 336.1910, 40 CFR 52.21(d))**
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a temperature monitoring device in the combustion chamber of the thermal oxidizer to monitor and record the temperature, on a continuous

basis during operation of EU-EG7, EU-EG8, or EU-EG9.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), R 336.1910, 40 CFR 52.21(d))**

V. TESTING/SAMPLING

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

1. Upon request by the AQD District Supervisor, the permittee shall verify the CO emission rate of 509 lb per 1,000 gallon from a representative engine in FGCONTROLLED by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² **(R 336.1205(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(d))**
2. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor and record, in a satisfactory manner, the temperature in the combustion chamber of the thermal oxidizer, on a continuous basis, during operation of EU-EG7, EU-EG8, or EU-EG9. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval.² **(R 336.1205(1)(a) & (b), R 336.1702(a), R 336.1225, R 336.1910, 40 CFR 52.21(d))**
2. The permittee shall keep a record of all malfunctions or failures of the thermal oxidizer. The records shall include the date of the occurrence, the time of the occurrence, the length of the occurrence, and the corrective procedures taken.² **(R 336.1225, R 336.1702(a), R 336.1910, R 336.1911, 40 CFR 52.21(d))**
3. The permittee shall keep, in a satisfactory manner, all test reports for FGCONTROLLED, as required by SC V.1, on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(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))**
4. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

5. If testing results in emission factors above the listed emission factor in SC V.1, the permittee shall submit notification of the high results, an analysis of the circumstances that revolved around the high tested values, and how the calculation of the facility-wide emission limit is affected. The notification shall be submitted within 90 days following the last date of the test.² (R 336.1205(1)(a) & (b), 40 CFR 52.21(d))

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-EG6	18 ²	38 ²	R 336.1225, 40 CFR 52.21(c) &(d)
2. SV-MERGED ^B	36 ²	57 ²	R 336.1225, 40 CFR 52.21(c) &(d)
3. SV-EG5	12 ²	55 ²	R 336.1225, 40 CFR 52.21(c) &(d)
4. SV-TM4	12 ²	55 ²	R 336.1225, 40 CFR 52.21(c) &(d)
5. SV-TM5	12 ²	55 ²	R 336.1225, 40 CFR 52.21(c) &(d)
6. SV-EG789	36 ²	60 ²	R 336.1225, 40 CFR 52.21(c) &(d)

^B This stack is associated with EU-UPDOWN, EU-EG1, EU-EG2, and EU-TM1.

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).

FGUNCONTROLLED FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Engines or other vehicle components tested under this flexible group have uncontrolled emissions.

Emission Unit: EU-COLD, EU-EG3, EU-EG4, EU-CHDY6, EU-CHDY7

POLLUTION CONTROL EQUIPMENT

Engines in EU-COLD are not equipped with control. Engines in EU-EG3 and EU-EG4 are uncontrolled during high speed tests due to excessive temperatures. Engines in EU-CHDY6 and EU-CHDY7 test with dummy catalysts, which provides no control of emissions.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

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. Upon request by the AQD District Supervisor, the permittee shall verify the CO emission rate of 6,930 lb per 1,000 gallon from a representative engine in EU-COLD by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² **(R 336.1205(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(d))**

2. Within 180 days after initially conducting high speed tests in either EU-EG3 or EU-EG4, the permittee shall verify the CO emission rate of 6,930 lb per 1,000 gallon from a representative engine during high speed tests in either EU-EG3 or EU-EG4 by testing at the owner's expense, in accordance with Department requirements. Thereafter, upon request by the AQD District Supervisor, subsequent testing may be required. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² **(R 336.1205(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(d))**
3. Upon request by the AQD District Supervisor, the permittee shall verify the CO emission rate of 6,930 lb per 1,000 gallon from a representative engine with a dummy catalyst in either EU-CHDY6 or EU-CHDY7 by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² **(R 336.1205(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(d))**
4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep, in a satisfactory manner, all test reports for FGULEV, as required by SC V.1, on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(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))**
4. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**
5. If testing results in emission factors above the listed emission factor in SC V.1, the permittee shall submit notification of the high results, an analysis of the circumstances that revolved around the high tested values, and how the calculation of the facility-wide emission limit is affected. The notification shall be submitted within 90 days following the last date of the test.² **(R 336.1205(1)(a) & (b), 40 CFR 52.21(d))**

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-COLD	8 ²	42 ²	R 336.1225, 40 CFR 52.21(c) &(d)
2. SV-EG3	18 ²	54 ²	R 336.1225, 40 CFR 52.21(c) &(d)
3. SV-EG4	18 ²	56 ²	R 336.1225, 40 CFR 52.21(c) &(d)
4. SV-CHDY6	12 ²	42 ²	R 336.1225, 40 CFR 52.21(c) &(d)
5. SV- CHDY7	16 ²	58 ²	R 336.1225, 40 CFR 52.21(c) &(d)

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).

FG-TANKS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

One 12,000 gallon, three compartment underground fuel storage tank; one 5,000 gallon, two compartment underground storage tank; one 15,000 gallon, three compartment aboveground storage tank; one 12,000 gallon, three compartment aboveground storage tank; and one 12,000 gallon, four compartment aboveground storage tank.

Emission Unit: EU-TANK1, EU-TANK2, EU-TANK5, EU-TANK6, EU-TANK7

POLLUTION CONTROL EQUIPMENT

Permanent submerged fill piping. EU-TANK1, EU-TANK6, and EU-TANK7 include vapor balance or equivalent control.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not load or allow the loading of gasoline from a delivery vessel into EU-TANK1, EU-TANK6, and EU-TANK7 unless the stationary vessel is equipped with a permanent submerged fill pipe.² **(R 336.1703(1))**
2. The permittee shall not load or allow the loading of gasoline from a delivery vessel into EU-TANK1, EU-TANK6, and EU-TANK7 unless the stationary vessel is controlled by a vapor balance system or an equivalent control system approved by the department. The vapor balance system shall capture displaced gasoline vapor and air by means of a vapor-tight collection line and shall be designed to return not less than 90%, by weight, of the displaced gasoline vapor from the stationary vessel to the delivery vessel.² **(R 336.1703(2))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. EU-TANK1, EU-TANK6, and EU-TANK7 shall be equipped, maintained, or controlled with both the following:² **(R 336.1703(3))**
 - a. An interlocking system or procedure to ensure that the vapor-tight collection line is connected before any gasoline can be loaded.
 - b. A device to ensure that the vapor-tight collection line shall close upon disconnection so as to prevent release of gasoline vapor.

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep records of the dimension and an analysis showing the capacity of each underground storage tank included in FG-TANKS. All records shall be readily accessible and kept for the life of the source.² **(R 336.1702)**

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-TANK6-1	3.3 ¹	34.25 ¹	R 336.1225
2. SV-TANK6-2	3.3 ¹	34.25 ¹	R 336.1225
3. SV-TANK6-3	3.3 ¹	34.25 ¹	R 336.1225
4. SV-TANK7-1	3.3 ¹	34.25 ¹	R 336.1225
5. SV-TANK7-2	3.3 ¹	34.25 ¹	R 336.1225
6. SV-TANK7-3	3.3 ¹	34.25 ¹	R 336.1225
7. SV-TANK7-4	3.3 ¹	34.25 ¹	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 Subparts A and CCCCCC, as they apply to FG-TANKS.² **(40 CFR Part 63 Subparts A & CCCCCC)**

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).

**FG-GENSETS
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Two natural gas-fired engine generators, each equipped with an oxidizing catalyst and LEANOX air to fuel controllers.

Emission Unit: EU-GENSET1, EU-GENSET2

POLLUTION CONTROL EQUIPMENT

Oxidizing catalyst and LEANOX air to fuel controller on each engine.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO _x	0.5 g/hp-hr ^{a, 2}	Three separate test runs of at least 1 hour, for each performance test required in 40 CFR 60.4244 and Table 2 to Subpart JJJJ of Part 60	Each engine in FG-GENSETS	SC V.1 SC VI.1	R 336.1205(1)(a) 40 CFR 52.21(c) & (d) 40 CFR 60.4233(e) Table 1 of 40 CFR Subpart JJJJ
2. CO	0.9 g/hp-hr ^{b, 2}	Three separate test runs of at least 1 hour, for each performance test required in 40 CFR 60.4244 and Table 2 to Subpart JJJJ of Part 60	Each engine in FG-GENSETS	SC V.1 SC VI.1	R 336.1205(1)(a) 40 CFR 52.21 (d) 40 CFR 60.4233(e) Table 1 of 40 CFR Subpart JJJJ
3. VOC	0.35 g/hp-hr ^{c, 2}	Three separate test runs of at least 1 hour, for each performance test required in 40 CFR 60.4244 and Table 2 to Subpart JJJJ of Part 60	Each engine in FG-GENSETS	SC V.1 SC VI.1	R 336.1205(1)(a) 40 CFR 52.21 (d) 40 CFR 60.4233(e) Table 1 of 40 CFR Subpart JJJJ

^a Compliance with this streamlined NO_x limit shall be considered compliance with the 1.0 g/hp-hr NO_x limit established by 40 CFR 60.4233(e).

^b Compliance with this streamlined CO limit shall be considered compliance with the 2.0 g/hp-hr CO limit established by 40 CFR 60.4233(e).

^c Compliance with this streamlined VOC limit shall be considered compliance with the 0.7 g/hp-hr VOC limit established by 40 CFR 60.4233(e). For purposes of establishing compliance with 40 CFR 60 Subpart JJJJ, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

II. MATERIAL LIMIT(S)

1. The permittee shall only burn natural gas, as defined in 40 CFR 72.2, in any engine in FG-GENSETS.² **(R 336.1225, R 336.1702(a), 40 CFR 52.21 (c) & (d))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not allow the combined total hours of operation for EU-GENSET1 and EU-GENSET2 to exceed 14,560 hours per 12-month rolling time period, as determined at the end of each calendar month.² **(R 336.1205(1)(a) and (3), R 336.1224, R 336.1225, R 336.1702, 40 CFR 52.21(c) & (d))**
2. The permittee shall operate and maintain each engine in FG-GENSETS such that it meets the emission limits in SC I.1, I.2, and I.3 over the entire life of the engine.² **(40 CFR 60.4234, 40 CFR 60.4243(b))**
3. If the permittee purchased 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 each engine in FG-GENSETS: **(40 CFR 60.4243(b)(1))²**
 - a. Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions,
 - b. Only change engine settings according to and consistent with the manufacturer's instructions, and
 - c. Meet the requirements as specified in 40 CFR 1068 Subparts A through D, as they apply to each engine.
4. If the permittee purchased a non-certified engine (or a certified engine which was not operated and maintained as specified), the permittee shall keep a maintenance plan for the non-certified engine and shall, to the extent practicable, maintain and operate each engine 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 each engine in FG-GENSETS with non-resettable hours meters to track the operating hours.² **(R 336.1205(1)(a) & (3)R 336.1225, 40 CFR 60.4243)**
2. The nameplate capacity of each engine in FG-GENSETS shall not exceed 1,573 bhp, as certified by the equipment manufacturer.² **(R 336.1205(1)(a), R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4230)**
3. The permittee shall not operate an engine in FG-GENSETS unless the engine's oxidation catalyst and LEANOX air to fuel controller is installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes operating and maintaining each oxidation catalyst in accordance with the manufacturer's instructions for a certified engine, or a maintenance plan for a non-certified engine.² **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.1910, 40 CFR 52.21 (c) & (d), 40 CFR Part 60 Subpart JJJJ)**

V. TESTING/SAMPLING

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

1. If any engine in FG-GENSETS is not a certified engine consistent with 40 CFR 60.4243(b)(1), or is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:
 - a. Conduct an initial performance test to demonstrate compliance with the applicable emission standards within one year of startup, or within one year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after you change emission-related settings in a way that is not permitted by the manufacturer.
 - b. If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4244.
 - c. Conduct subsequent performance testing every 8,760 hours of engine operation or every three years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. 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. 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(b), 40 CFR 60.4245(d))**

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, in a satisfactory manner, the following records for each engine in FG-GENSETS:
 - a. For each certified engine: The permittee shall keep documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.
 - b. For each uncertified engine or certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2): The permittee shall keep documentation that the engine meets the emission standards.

The permittee shall keep all records on file and make them available to the Department upon request.² **(40 CFR 52.21 (c) & (d), 40 CFR 60.4245(a))**

2. The permittee shall keep, in a satisfactory manner, the following records of maintenance activity for each engine in FG-GENSETS:
 - a. For each certified engine: The permittee shall keep records of the manufacturer's emission-related written instructions, and records demonstrating that the engine has been maintained according to those instructions, as specified in SC III.3.
 - b. For each uncertified engine: The permittee shall keep records of a maintenance plan, as required by SC III.4, and maintenance activities.

The permittee shall keep all records on file and make them available to the Department upon request.² **(40 CFR 60.4243(b)(1), 40 CFR 60.4243(b)(2))**

3. The permittee shall keep, in a satisfactory manner, records for FG-GENSETS of all notifications submitted to comply with 40 CFR Part 60 Subpart JJJJ and all documentation supporting any notification.² **(40 CFR 60.4245(a))**
4. The permittee shall keep, in a satisfactory manner, a log of the monthly and 12-month rolling time period hours of operation of both engines in FG-GENSETS. The permittee shall keep all records on file at the facility and make them available to the department upon request.² **(R 336.1205(1)(a) & (3), R 336.1225, 40 CFR 60.4243, 40 CFR 52.21(c) & (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))**
4. Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the following information:² **(40 CFR 60.7(a)(1))**
 - a. Name and address of the owner or operator; **(40 CFR 60.4245(c)(1))**
 - b. The address of the affected source; **(40 CFR 60.4245(c)(2))**
 - c. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; **(40 CFR 60.4245(c)(3))**
 - d. Emission control equipment; and **(40 CFR 60.4245(c)(4))**
 - e. Fuel used. **(40 CFR 60.4245(c)(5))**

5. The permittee shall submit a notification specifying whether each engine of FG-GENSETS will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of the engine and within 30 days of switching the manner of operation.² **(R 336.1201(3))**
6. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**

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. SV-GENSET1	16 ²	35 ²	R 336.1225, 40 CFR 52.21(c) & (d)
2. SV-GENSET2	16 ²	35 ²	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the New Source Performance Standards as specified in 40 CFR Part 60, Subpart A and Subpart JJJJ, as they apply to each engine in FG-GENSETS.² **(40 CFR Part 60 Subpart A and JJJJ)**
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, as they apply to FG-GENSETS.² **(40 CFR, Part 63, Subparts A and ZZZZ)**

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).

FG-GDFMACT
Gasoline Dispensing Facilities: Existing and New/Reconstructed
(≥10,000 and <100,000 Gallons/Month)
Area Source of HAP Emissions

FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group includes existing and new/reconstructed stationary gasoline dispensing facilities (GDF) that have a maximum monthly gasoline throughput of at least 10,000 gallons and no more than 100,000 gallons and located at an area source of hazardous air pollutants (HAPs). The gasoline distribution area source MACT (maximum achievable control technology) imposes Stage I controls to control emissions during the loading of gasoline storage tanks at each GDF and management (work) practices. The federal regulation addressed by this flexible group includes:

- The National Emission Standard for Hazardous Air Pollutants (NESHAP) for Source Categories: Gasoline Dispensing Facilities. Title 40 of the Code of Federal Regulations (CFR), Parts 9 and 63 (40 CFR 63.11110-11132), Subpart CCCCCC (hereinafter GDF MACT) initially promulgated effective September 23, 2008. Amendments were proposed on December 15, 2009 and the Final Rule was promulgated January 24, 2011.

A GDF is an "existing" GDF if it was constructed or reconstructed on or before November 9, 2006. A GDF is "new" if it was constructed or reconstructed after November 9, 2006. **(40 CFR 63.1112(b) and (c))**

The compliance date for existing GDF that only load gasoline into fuel tanks other than those in motor vehicles, as defined in 40 CFR 63.11132, is January 24, 2014. 40 CFR 63.11124(a)(1) states that GDF that are now subject to the rule because they only load gasoline into fuel tanks other than those in motor vehicles, as defined in 40 FGR 63.11132, must submit Initial Notifications within 120 days of publication of these final amendments. 40 CFR 63.11124(a)(2) and (b)(2) include a requirement that facilities must state in their Notification of Compliance Status (NOCS) report whether the facilities' gasoline throughput is determined based on the volume of gasoline loaded into all gasoline storage tanks, or on the volume of gasoline dispensed from all gasoline storage tanks. EPA also specifically included the 60-day time frame for the submittal of the NOCS in 63.11124(a)(2).

Emission Unit: EU-TANK1, EU-TANK2, EU-TANK5, EU-TANK6, EU-TANK7

GDF ID/Location	List of GDF Tanks	Submerged Fill (Yes/No)	GDF Installation Date
EU-TANK1 Gasoline underground storage tank	One 12,000 gallon, three compartment underground fuel storage tank (serves engine test stand and chassis dynamometers)	Yes	08/01/01
EU-TANK2 Gasoline underground storage tank	One 5,000 gallon, two compartment underground storage tank (serves engine test stand and chassis dynamometers)	Yes	07/01/93
EU-TANK5 Gasoline above ground storage tank	One 15,000 gallon, three compartments above ground storage tank (serves engine test stand and chassis dynamometers)	Yes	10/01/08
EU-TANK6	12,000 gallon, 3 compartment, aboveground gasoline storage tank.	Yes	12/07/17
EU-TANK7	12,000 gallon, 4 compartment, aboveground gasoline storage tank.	Yes	12/07/17

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall implement the following measures required to prevent handling of gasoline in a manner that would result in vapor releases to the atmosphere for extended periods of time:
 - a. Minimize gasoline spills. **(40 CFR 63.11116(a)(1) and 40 CFR 63.11117(a))**
 - b. Clean up spills as expeditiously as practicable. **(40 CFR 63.11116(a)(1) and 40 CFR 63.11117(a))**
 - c. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasket seal when not in use. **(40 CFR 63.11116(a)(1) and 40 CFR 63.11117(a))**
 - d. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators. **(40 CFR 63.11116(a)(1) and 40 CFR 63.11117(a))**
2. Except for tanks with a capacity of less than 250 gallons, submerged fill must be utilized when loading gasoline into storage tanks. **(40 CFR 63.11117(b))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. Submerged Fill Pipe
 - a. Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the storage tank. **(40 CFR 63.11117(b)(1))**
 - b. Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the storage tank. **(40 CFR 63.11117(b)(2))**
 - c. Gasoline storage tanks with a capacity of less than 250 gallons are not required to have submerged fill. **(40 CFR 63.11117(c))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep a record of gasoline throughput to be able to demonstrate that monthly throughput is less than 100,000 gallons and such record must be made available to the AQD and the USEPA within 24 hours of a request. **(40 CFR 63.11117(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))**
4. Submit an Initial Notification if subject to this subpart by May 9, 2008, or at the time the GDF becomes subject to the control requirements (submerged fill), unless the facility meets the requirements in Section VII.6 below. The notification must be submitted to the applicable USEPA Regional Office and the AQD and contain:
 - a. The name and address of the owner and the operator.
 - a. The address (i.e., physical location) of the GDF.
 - b. A statement that the notification is being submitted in response to the Gasoline Distribution Facility Area MACT (40 CFR 63 Subpart CCCCCC) and identifying the requirements in paragraphs a. through c. of 40 CFR 63.11117 that apply. **(40 CFR 63.11124(a)(1))**
5. Submit a Notification of Compliance Status to the applicable USEPA Regional Office and the AQD, by January 10, 2011 (or upon startup of a new/reconstructed GDF) unless in compliance with Michigan Rule R 336.1703 or a permit requiring submerged fill (see Section VII.6 below). The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy and must indicate whether the source has complied with the requirements of this subpart. If the facility is in compliance with the requirements of 40 CFR 63.11117 at the time the Initial Notification is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under Section VII.4. above. **40 CFR 63.11124(a)(2))**
6. If, prior to January 10, 2008, the facility is operating in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in 40 CFR 63.11117(b), neither the Initial Notification or a Notification of Compliance Status is required. **(40 CFR 63.11124(a)(3))**

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. Existing GDFs must comply with the "GDF MACT" by January 24, 2014. New and reconstructed GDFs must comply by dates specified in 40 CFR 63.11117(f) (2) (i) and (ii). **(40 CFR 63.11117(f))**

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).

FG-RICEMACT FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group includes existing emergency stationary spark ignition (SI) reciprocating internal combustion engines (RICE), that have less than or greater than 500 brake horsepower (HP) located at an area source of hazardous air pollutants (HAPs). The federal regulations addressed by this flexible group include:

- The National Emission Standard for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE). Title 40 of the Code of Federal Regulations (CFR), Part 63, Subpart ZZZZ (hereinafter RICE MACT) as promulgated effective October 19, 2010. Existing Engines = Commenced Construction or Reconstruction **before June 12, 2006**. New Engines = Commenced Construction or Reconstruction **after June 12, 2006**.

Emission Units: EU-EMERGEN

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall install, maintain and operate the emergency engine(s) in a satisfactory manner. The permittee shall follow the recommended work practices specified in 40 CFR Part 63 Subpart ZZZZ Table 2d Item 5 (Emergency SI RICE Area Source).
 - a. Change oil and filter every 500 hours of operation or annually, whichever comes first, except as allowed in SC III.2.
 - b. Inspect the spark plugs every 1,000 hours of operation or annually, whichever comes first; and
 - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

The permittee may petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

If the emergency engine/s is being operated during an emergency and it is not possible to shut down the engine to perform the work practice standards on the schedule required the work practice standard can be delayed until the emergency is over. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State or local law has been abated. The permittee must report any failure to perform the work practice on the schedule required and the Federal, State or local law for which the risk was deemed unacceptable. **(40 CFR 63.6603, 40 CFR Part 63 Subpart ZZZZ Table 2d, Item 5)**

2. The permittee shall operate the emergency engine/s in compliance with the emission limitations and operating limitations in this subpart. The emergency engine/s must be operated and maintained at any affected source, 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(a), (b))**

3. The permittee may utilize an oil analysis program in order to extend the specified oil change requirement for emergency engine/s. The oil analysis must be performed at the same frequency as oil changes are required. The oil analysis program specified in SC V.1. must analyze the parameters listed, follow the procedures indicated and keep records as required in 63.6625(j). **(40 CFR 63.6625(j))**
4. The permittee shall maintain and operate the emergency engine/s per the manufacturer's emission related written instructions or develop a maintenance plan which must provide for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions. **(40 CFR 63.6625(e)(3), 40 CFR 63.6640(a), 40 CFR Part 63 Subpart ZZZZ, Table 6 Item 9)**
5. The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. **(40 CFR 63.6625(h))**
6. There is no time limit on the use of emergency stationary RICE in emergency situations. **(40 CFR 63.6640(f)(1))**
7. The permittee shall not exceed 100 hours for maintenance checks and readiness testing for emergency engine/s. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. **(40 CFR 63.6640(f)(2)(ii))**
8. The permittee may operate the emergency engine/s for non-emergency situations for up to 50 hours per year as allowed in 40 CFR 63.6640(f)(4). **(40 CFR 63.6640(f)(4))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain emergency engine/s with a non-resettable hour meter to track the number of hours the engine operates. **(40 CFR 63.6625(f))**

V. TESTING/SAMPLING

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

1. For each emergency engine/s utilizing an oil analysis program, testing is required. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. **(40 CFR 63.6625(j))**

VI. MONITORING/RECORDKEEPING

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

1. For each emergency engine/s the permittee shall keep in a satisfactory manner, records to demonstrate continuous compliance with operating limitations in SC III.4. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(d), 40 CFR 63.6660)**
2. For each emergency engine/s the permittee shall keep in a satisfactory manner, records of hours of operation recorded through the non-resettable hour meter. The permittee shall document how many hours were spent during emergency operation and how many hours were spent during non-emergency operation. If the engines

were used for demand response operation, the permittee shall keep records of the notification of the emergency situation and the time the engine was operated as part of demand response. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(f), 40 CFR 63.6660)**

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 applicable provisions of the RICE MACT as specified in 40 CFR, Part 63, Subpart A and Subpart ZZZZ, by the initial compliance date of **OCTOBER 19, 2013. (40 CFR 63.6595, 40 CFR, Part 63, Subparts A and ZZZZ)**

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).

**FG-RULE 287(2)(c)
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 287(2)(c).

Emission Unit: EU-PAINTBOOTH

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Underlying Applicable Requirement
1. Coatings	200 gallons	Per month, as applied, minus water, per emission unit	NA	R 336.1287(2)(c)(i)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. Any exhaust system that serves only coating spray equipment shall be equipped with a dry filter control or water wash control which is installed, maintained, and operated in accordance with the manufacturer's specifications, or the owner or operator develops a plan which provides to the extent practicable for the maintenance and operation of the equipment in a manner consistent with good air pollution control practices for minimizing emissions. **(R 336.1287(2)(c)(ii))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the EGLE, AQD Rule 287(2)(c), Permit to Install Exemption Record form (EQP 3562) or in a format acceptable to the AQD District Supervisor. **(R 336.1213(3))**
 - a. Volume of coating used, as applied, minus water, in gallons. **(R 336.1287(2)(c)(iii))**
 - b. Documentation of any filter replacements or maintenance of water wash control for exhaust systems serving coating spray equipment or other documentation included in a plan developed by the owner or operator of the equipment. **(R 336.1213(3))**

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

FG-COLD CLEANERS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

Emission Unit: EU-COLDCLEAN_PT1, EU-COLDCLEAN_PT2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall not use cleaning solvents containing more than five percent by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof. **(R 336.1213(2))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. **(R 336.1611(2)(b), R 336.1707(3)(b))**
2. The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. **(R 336.1213(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The cold cleaner must meet one of the following design requirements:
 - a. The air/vapor interface of the cold cleaner is no more than ten square feet. **(R 336.1281(2)(h))**
 - b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. **(R 336.1285(2)(r)(iv))**
2. The cold cleaner shall be equipped with a device for draining cleaned parts. **(R 336.1611(2)(b), R 336.1707(3)(b))**
3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. **(R 336.1611(2)(a), R 336.1707(3)(a))**
4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. **(R 336.1707(3)(a))**
5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:
 - a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. **(R 336.1707(2)(a))**
 - b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. **(R 336.1707(2)(b))**

- c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. **(R 336.1707(2)(c))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. For each new cold cleaner in which the solvent is heated, the solvent temperature shall be monitored and recorded at least once each calendar week during routine operating conditions. **(R 336.1213(3))**
2. The permittee shall maintain the following information on file for each cold cleaner: **(R 336.1213(3))**
 - a. A serial number, model number, or other unique identifier for each cold cleaner.
 - b. The date the unit was installed, manufactured or that it commenced operation.
 - c. The air/vapor interface area for any unit claimed to be exempt under Rule 281(2)(h).
 - d. The applicable Rule 201 exemption.
 - e. The Reid vapor pressure of each solvent used.
 - f. If applicable, the option chosen to comply with Rule 707(2).
3. The permittee shall maintain written operating procedures for each cold cleaner. These written procedures shall be posted in an accessible, conspicuous location near each cold cleaner. **(R 336.1611(3), R 336.1707(4))**
4. As noted in Rule 611(2)(c) and Rule 707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in non-closed containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20 percent, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis. **(R 336.1213(3), R 336.1611(2)(c), R 336.1707(3)(c))**

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

E. NON-APPLICABLE REQUIREMENTS

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

APPENDICES

Appendix 1. Acronyms and Abbreviations

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO ₂ e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environment, Great Lakes, and Energy	°F	Degrees Fahrenheit
EU	Emission Unit	gr	Grains
FG	Flexible Group	HAP	Hazardous Air Pollutant
GACS	Gallons of Applied Coating Solids	Hg	Mercury
GC	General Condition	hr	Hour
GHGs	Greenhouse Gases	HP	Horsepower
HVLP	High Volume Low Pressure*	H ₂ S	Hydrogen Sulfide
ID	Identification	kW	Kilowatt
IRSL	Initial Risk Screening Level	lb	Pound
ITSL	Initial Threshold Screening Level	m	Meter
LAER	Lowest Achievable Emission Rate	mg	Milligram
MACT	Maximum Achievable Control Technology	mm	Millimeter
MAERS	Michigan Air Emissions Reporting System	MM	Million
MAP	Malfunction Abatement Plan	MW	Megawatts
EGLE	Michigan Department of Environment, Great Lakes, and Energy	NMOC	Non-methane Organic Compounds
MSDS	Material Safety Data Sheet	NO _x	Oxides of Nitrogen
NA	Not Applicable	ng	Nanogram
NAAQS	National Ambient Air Quality Standards	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM10	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO ₂	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

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

Appendix 2. Schedule of Compliance

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

Appendix 3. Monitoring Requirements

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

Appendix 4. Recordkeeping

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

Appendix 5. Testing Procedures

There are no specific testing requirement plans or procedures for this ROP. 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-N2915-2012. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-N2915-2012a is being reissued as Source-Wide PTI No. MI-PTI-N2915-2017.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
186-13C	201600173*	Incorporate Permit to Install (PTI) No. 186-13C. PTI No. 186-13C modify engine test cell 3 and 4 in Powertrain building regarding ethanol fuel (FG-EG34). PTI No. 186-13C also permits two (2) 1,573 bhp (1,141 kW) (each) natural gas fueled engine/generators (FG-GENSETS) at the facility.	FG-GENSETS FG-EG34
186-13	201500164	Incorporate Permit to Install (PTI) No. 186-13. PTI No. 186-13 is for installation of three (3) additional engine dynamometers (EU-EG4, EU-EG5 and EUEG6) and two (2) additional transmission dynamometers (EU-TM4 and EU-TM5) at its 1588 Building (Powertrain Facility). TEMA is also proposing to replace the existing thermal oxidizer control device with individual catalytic oxidizers installed in each dynamometer and modify material use restrictions contained in the current permit. These changes result in a decrease of CO potential emissions by 26.1 tons per year.	EU-CHDY1 EU-CHDY2 EU-CHDY3 EU-CHDY4 EU-CHDY5 EU-CHDY6 EU-UPDOWN EU-EG1 EU-EG2 EU-EG3 EU-EG4 EU-EG5 EU-EG6

			EU-COLD EU-TM1 EU-TM4 EU-TM5 EU-UPDOWN FG-EG34 FG-CHDYNOS FG-EG125 FG-TM145
*PTI No. 186-13C was incorporated into the ROP during the ROP renewal period.			

The following ROP amendments or modifications were issued after the effective date of ROP No. MI-PTI-N2915-2017.

Permit to Install Number	ROP Revision Application Number/Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
186-13D	201700149 / February 21, 2018	PTI 186-13D was to increase the allowable pound per hour emission limit and decrease the allowed tons per year fuel limit in EU-EG6. Stack dimensions were updated for FG-EVCHDYNOS and FG-EG789.	EU-CHDY1 EU-CHDY2 EU-CHDY3 EU-CHDY4 EU-CHDY5 EU-CHDY6 EU-CHDY7 EU-CHDY8 EU-CHDY9 EU-CHDY10 EU-UPDOWN EU-EG1 EU-EG2 EU-EG3 EU-EG4 EU-EG5 EU-EG6 EU-EG7 EU-EG8 EU-EG9 EU-COLD EU-TM1 EU-TM4 EU-TM5 EU-GENSET1 EU-GENSET2 FG-PTCHDYNOS FG-EVCHDYNOS FG-EG125 FG-EG34 FG-EG789 FG-TM145 FG-GENSETS

Permit to Install Number	ROP Revision Application Number/Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	201800089 / October 11, 2018	<p>This Minor Modification was to update the CAM Plan indicator ranges for the catalyst control systems (CCS) for emission units EU-EG1, EU-EG2, EU-EG5, EU-TM1, EU-TM4, and EU-TM5 which are covered in the FG-CAM Flexible Group Table of the ROP. The CCS are used to control CO emissions from the above listed emission units. The requested CAM Condition changes are requested, since the current Conditions do not account for a short test duration, engine idling, smaller more efficient engines, and engine spike testing where the engine revolutions per minute (RPMs) are increased then cut. The new Conditions account for the daily monitoring of the catalyst temperature to ensure proper operation of the CCS. In the case when the minimum average temperature of the catalyst is not achieved, the company can show emission compliance through fuel consumption.</p>	FG-CAM
186-13E	201900158 / January 3, 2020	<p>This Administrative Amendment was to consolidate fuel material limits and CO emission limits into a Prevention of Significant Deterioration (PSD) opt-out and corrections to stack parameters on various pieces of equipment. The facility increased the fuel usage limit by 3,000 gallons.</p> <p>The facility requested a PSD opt-out of 249.0 tpy based upon a 12-month rolling time period with fuel restrictions on the engine or vehicle component testing. The AQD also added a fuel restriction on natural gas usage to cover the rest of the combustion equipment at the facility.</p> <p>In addition, two gasoline storage tanks were installed. The following flexible groups were removed because they were restructured into new Flexible Groups: FG-EG125, FG-EG34, FG-TM145, FG-EG789, FG-PTCHDYNOS, FG-EVCHDYNOS.</p> <p>FG-CAM was updated to address new emission units and remove references to former Emission Units and Flexible Groups that are no longer applicable. The FG-CAM table will be updated and reviewed during the next Renewal.</p> <p>PTI 186-13E went through the Public Participation process.</p>	Source-Wide EU-TANK6 EU-TANK7 FGULEV FGLEV FGCONTROLLED FGUNCONTROLLED

Appendix 7. Emission Calculations

CO Source-Wide Calculations

Compliance Calculation Method for Source-wide CO Emission Limit

The following contains the formula that should be used on a monthly basis to evaluate CO emissions.

Monthly CO from engines or other vehicle components tested = FGULEV [gal/month * lb/1,000 gal*] + FGLEV [gal/month * lb/1,000 gal*] + FGCONTROLLED [gal/month * lb/1,000 gal*] + FGUNCONTROLLED [gal/month * lb/1,000 gal*]

- * The lb/1,000 gal emission factors shall be the emission factors listed in the applicable flexible group or the most recently tested value.

Monthly CO from natural gas = non-NSPS engine [MMscf/month * 399 lb/MMscf] + natural gas-fired heaters/boilers/burners [MMscf/month * 84 lb/MMscf] + NSPS engines [MMscf/month * XX lb/MMscf**]

- ** This emission factor (XX) shall be specific to the engines in question; however, the currently permitted engines (as of issuance of this permit) have an emission factor of 323.09 lb/MMscf.

Total Monthly CO emissions = Monthly CO from engines or other vehicle components tested + Monthly CO from natural gas

After calculating the monthly CO emissions, the following formula shall be used to calculate the 12-month rolling CO emissions.

12-month rolling CO emissions = (Previous 12-month rolling calculation – First month included in the calculation) + New month calculation

Appendix 8. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

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

B. Other Reporting

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.