

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

EFFECTIVE DATE: July 10, 2024

ISSUED TO

**Ford Motor Company
Automatic Transmission New Product Center**

State Registration Number (SRN): M4734

LOCATED AT

35500 Plymouth Road, Livonia, Wayne County, Michigan 48150

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-M4734-2024

Expiration Date: July 10, 2029

Administratively Complete ROP Renewal Application
Due Between January 10, 2028 and January 10, 2029

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-M4734-2024

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

Julie Brunner, ROP Central Unit 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 is state-only enforceable will be noted as such.

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

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

A. GENERAL CONDITIONS

Permit Enforceability

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

General Provisions

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

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

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2).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 state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The annual compliance certification (pursuant to Rule 213(4)(c)) shall be submitted to the USEPA through the USEPA's Central Data Exchange (CDX) using the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through CDX (<https://cdx.epa.gov/>), unless it contains confidential business information then use the following address: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
 - a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
 - b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
 - c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: **(R 336.1213(3)(c))**
 - a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
 - b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that; "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete." The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.
23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**
24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**
25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.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(9))**

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant 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 at the facility (Ford Motor Company SRNs A8645 and M4734 contiguous sites) including equipment covered by other permits, grandfathered equipment, and exempt equipment.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Each Individual HAP	Less than 8.9 tpy ²	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC V.1, SC VI.2	R 336.1205(3)
2. Aggregate HAPs	Less than 22.4 tpy ²	12-month rolling time period as determined at the end of each calendar month	SOURCE-WIDE	SC V.1, SC VI.2	R 336.1205(3)

The emission limits established in SC I.1 and SC I.2 apply to individual and aggregate HAP emissions from SRNs A8645 and M4734 as one contiguous site.

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. The permittee shall determine the HAP content of any material as applied and as received, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311.² (R 336.1205(3))

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 last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² (R 336.1205(3))

2. The permittee shall keep the following information on a monthly basis:
 - a. Gallons or pounds of each HAP containing material used.
 - b. HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.
 - c. Fuel usage for all fuel-burning equipment SOURCE-WIDE and equipment-specific emission factors for each fuel.
 - d. Individual and aggregate HAP emissions calculations determining the monthly emissions rate of each in tons per calendar month for all SOURCE-WIDE equipment. For the purpose of this condition, SOURCE-WIDE includes the individual and total HAP emissions from the Ford Motor Company SRNs A8645 and M4734 contiguous sites. Alternatively, for bulk chemical usage which has quarterly records data, usage shall be prorated to each month using hours of operations or production data.
 - e. Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month for all SOURCE-WIDE equipment. For the purpose of this condition, SOURCE-WIDE includes the individual and total HAP emissions from the Ford Motor Company SRNs A8645 and M4734 contiguous sites. Alternatively, for bulk chemical usage which has quarterly records data, usage shall be prorated to each month using hours of operations or production data.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request.² **(R 336.1205(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

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).

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-TestCell_A3	Engine-driven output dynamometer with 400 hp absorption capacity. Reg/Premium/Diesel	12-01-1991	FG-PHASE2
EU-TestCell_A4	Engine-driven output dynamometer with 400 hp absorption capacity. Reg/Premium/Diesel	12-01-1991	FG-PHASE2
EU-TestCell_A5	Engine-driven output dynamometer with 1,000 hp absorption capacity. Reg/Premium/Diesel	12-01-1991 / 05-01-2016	FG-PHASE2
EU-TestCell_A6	Engine-driven output dynamometer with 600 hp absorption capacity. Reg/Premium/Diesel	12-01-1992	FG-PHASE2
EU-TestCell_A7	Engine-driven output dynamometer with 600 hp absorption capacity. Reg/Premium/Diesel	12-01-1992	FG-PHASE2
EU-TestCell_A8	Engine-driven output dynamometer with 600 hp absorption capacity. Reg/Premium/Diesel	12-01-1992	FG-PHASE2
EU-TestCell_B1	Two Engine-driven output dynamometers with 600 hp absorption capacity each. Reg/Premium/Diesel	12-01-1992	FG-PHASE2
EU-TestCell_B2	Two Engine-driven output dynamometers with 350 hp absorption capacity each Reg/Premium/Diesel	12-01-1991	FG-PHASE2
EU-TestCell_B3	Two Engine-driven output dynamometers with 350 hp absorption capacity each Reg/Premium/Diesel	12-01-1991	FG-PHASE2
EU-TestCell_F1	Electric, Engine, or Input Dynamometer driven. One input dynamometer rating of 702 hp, and two output dynamometers with maximum absorption capacity 368 hp each. Reg/Premium/Diesel	12-01-1991	FG-PHASE2
EU-TestCell_F2	Two Engine or electric driven output dynamometers with 368 hp absorption capacity each Reg/Premium/Diesel	12-01-1991	FG-PHASE2

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-TestCell_TC4	Two Engine or electric driven output dynamometers with 804 hp absorption capacity each. Reg/Premium/Diesel	12-01-1991	FG-PHASE2
EU-TestCell_I3	Two Engine or electric driven output dynamometers with 220 hp absorption capacity each. Reg/Premium/Diesel	12-01-1991	FG-PHASE2
EU-TestCell_I5	Two Engine-driven output dynamometers with 200 hp absorption capacity each. Reg/Premium/Diesel	12-01-1991 / 10-20-2014	FG-PHASE2
EU-TestCell_I6	One Engine or electric driven output dynamometer with 200 hp absorption capacity. Reg/Premium/Diesel	12-01-1991	FG-PHASE2
EU-TestCell_T2	One Engine-driven output dynamometer with 600 hp absorption capacity. Reg/Premium/Diesel	12-01-1991 / 03-02-2007	FG-PHASE2
EU-TestCell_E3	Two Engine-driven output dynamometers with 460 hp and 400 hp absorption capacity respectively. Reg/Premium/Diesel	01-01-1995 / 01-01-2000	FG-PHASE3 FG-CAM
EU-TestCell_B4	Two Engine-driven output dynamometers with 460 hp and 400 hp absorption capacity respectively. Reg/Premium/Diesel	01-01-1995 / 01-01-1996	FG-PHASE3 FG-CAM
EU-TestCell_B5	Two Engine-driven output dynamometers with 380 hp absorption capacity each. Reg/Premium/Diesel	01-01-1995 / 01-01-1996	FG-PHASE3 FG-CAM
EU-TestCell_E4	Two Engine-driven output dynamometers with 460 hp and 400 hp absorption capacity respectively. Reg/Premium/Diesel	01-01-1995 / 01-01-2000	FG-PHASE3 FG-CAM
EU-TestCell_F3	Engine and Input Dynamometer driven. One input dynamometer rating of 400 hp and two output dynamometers with maximum absorption capacity 270 hp each. Reg/Premium/Diesel	01-01-1995 / 01-01-1996	FG-PHASE3 FG-CAM
EU-TestCell_F4	Engine and Input Dynamometer driven. One input dynamometer motor Rating 400 hp and two output dynamometers with maximum absorption capacity 270 hp each. Reg/Premium/Diesel	01-01-1995 / 01-01-1996	FG-PHASE3 FG-CAM
EU-TestCell_I12	Two Engine-driven output dynamometers with 422 hp absorption capacity each. Reg/Premium/Diesel (Installation not completed)	TBD	FG-PHASE3 FG-CAM
EU-TestCell_I13	Two Engine-driven output dynamometers with 422 hp absorption capacity. Reg/Premium/Diesel (installation not completed)	TBD	FG-PHASE3 FG-CAM

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-TestCell_I11	One Engine or Electric driven output dynamometer with 670 hp absorption capacity. Reg/Premium/Diesel	01-01-1995 / 01-01-/2015	FG-PHASE3 FG-CAM
EU-TestCell_I14	Two Engine-driven output dynamometers with 603 hp absorption capacity each. Reg/Premium/Diesel	01-01-1995 / 01-01-2006	FG-PHASE3 FG-CAM
EU-TestCell_I15	Two Engine-driven output dynamometer with 603 hp absorption capacity each. Reg/Premium/Diesel	01-01-1995 / 01-01-2006	FG-PHASE3 FG-CAM
EU-TestCell_I16	One Engine-driven output dynamometer with 603 hp absorption capacity. Reg/Premium/Diesel	01-01-1995 / 01-01-2006	FG-PHASE3 FG-CAM
EU-TestCell_I18	One Engine-driven output dynamometer with 603 hp absorption capacity. Reg/Premium/Diesel	01-01-1995 / 01-01-2006	FG-PHASE3 FG-CAM
EU-TestCell_I7	Engine and Input Dynamometers driven. One input dynamometer motor Rating 500 hp and two output dynamometers with maximum absorption capacity 270 hp each. Reg/Premium/Diesel	01-01-1995 / 01-01-1996	FG-PHASE3 FG-CAM
EU-TestCell_I8	Two Engine-driven output dynamometers with 270 hp absorption capacity each. Reg/Premium/Diesel	01-01-1995 / 01-01-1996	FG-PHASE3 FG-CAM
EU-TestCell_I9	Engine-driven output dynamometer with 270 hp absorption capacity each. Reg/Premium/Diesel	01-01-1995 / 01-01-1996	FG-PHASE3 FG-CAM
EU-TestCell_I19	Two Engine-driven output dynamometers with 270 hp absorption capacity each. Reg/Premium/Diesel	01-01-1995 / 01-01-1996	FG-PHASE3 FG-CAM
EU-TestCell_I20	Two Engine-driven output dynamometers with 270 hp absorption capacity each. Reg/Premium/Diesel	01-01-1995 / 01-01-1996	FG-PHASE3 FG-CAM
EU-TestCell_I10	Two Engine-driven output dynamometers with 270 hp absorption capacity each. Reg/Premium/Diesel	01-01-1995 / 01-01-1996	FG-PHASE3 FG-CAM
EU-TestCell_I17	Engine and Input Dynamometer driven. One input dynamometer Rating 500 hp and two output dynamometers with maximum absorption capacity 270 hp each. Reg/Premium/Diesel	01-01-1995 / 01-01-2007	FG-PHASE3 FG-CAM
EU-PHASE3-21	Dynamometer capable of engine-driven and engine-only operation fueled with gasoline, alcohol blends/gasoline fuel blend, diesel, kerosene, hydrogen, LPG, and natural gas. Three regenerative thermal oxidizers are used to control hydrocarbon and carbon monoxide emissions from the Phase 3 and Phase 3A test cells.	08-01-2016 / 02-08-2017	FG-PHASE3A FG-CAM

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-PHASE3-22	Dynamometer capable of engine-driven and engine-only operation fueled with gasoline, alcohol blends/gasoline fuel blend, diesel, kerosene, hydrogen, LPG, and natural gas. Three regenerative thermal oxidizers are used to control hydrocarbon and carbon monoxide emissions from the Phase 3 and Phase 3A test cells.	08-01-2016 / 02-08-2019	FG-PHASE3A FG-CAM
EU-PHASE3-23	Dynamometer capable of engine-driven and engine-only operation fueled with gasoline, alcohol blends/gasoline fuel blend, diesel, kerosene, hydrogen, LPG, and natural gas. Three regenerative thermal oxidizers are used to control hydrocarbon and carbon monoxide emissions from the Phase 3 and Phase 3A test cells.	02-07-2019	FG-PHASE3A FG-CAM
EU-PHASE3-24	Dynamometer capable of engine-driven and engine-only operation fueled with gasoline, alcohol blends/gasoline fuel blend, diesel, kerosene, hydrogen, LPG, and natural gas. Three regenerative thermal oxidizers are used to control hydrocarbon and carbon monoxide emissions from the Phase 3 and Phase 3A test cells.	02-07-2019	FG-PHASE3A FG-CAM
EU-PHASE3-25	Dynamometer capable of engine-driven and engine-only operation fueled with gasoline, alcohol blends/gasoline fuel blend, diesel, kerosene, hydrogen, LPG, and natural gas. Three regenerative thermal oxidizers are used to control hydrocarbon and carbon monoxide emissions from the Phase 3 and Phase 3A test cells.	02-07-2019	FG-PHASE3A FG-CAM
EU-AST1	16,000 gallons, premium unleaded gasoline storage. This AST is subject to Gasoline dispensing Area Source MACT (40 CFR Part 63, Subpart CCCCCC).	12-03-2015	FG-GASDISPENSING
EU-AST2	Two sections with 10,000 gallons and 6,000 gallons, gasoline storage. These ASTs are subject to Gasoline dispensing Area Source MACT (40 CFR Part 63, Subpart CCCCCC).	12-03-2015	FG-GASDISPENSING
EU-AST3	Two sections with 10,000 gallons and 6,000 gallons, CAT aging fuel and regular unleaded gasoline storage. These ASTs are subject to Gasoline dispensing Area Source MACT (40 CFR Part 63, Subpart CCCCCC).	12-03-2015	FG-GASDISPENSING

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-AST4	Two sections with 10,000 gallons and 6,000 gallons, Stores fuels which may vary between different fuel blends depending on the test needs. These ASTs are subject to Gasoline dispensing Area Source MACT (40 CFR Part 63, Subpart CCCCCC).	12-03-2015	FG-GASDISPENSING
EU-FG287PAINTBTH	Maintenance area paint booth operation. Exempt from permit to install requirements pursuant to Rule 287(2)(c).	01-01-2020	FG-RULE287(2)(c)
EU-COLDCLEANERS	Maintenance Parts Washer. Exempt from permit to install (Rule 201) requirements pursuant to Rule 278, Rule 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv).).	01-01-1995	FG-COLDCLEANERS

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-PHASE2	Phase II dynamometers used to test automatic transmissions.	EU-TestCell_A3, EU-TestCell_A4, EU-TestCell_A5, EU-TestCell_A6, EU-TestCell_A7, EU-TestCell_A8, EU-TestCell_B1, EU-TestCell_B2, EU-TestCell_B3, EU-TestCell_F1, EU-TestCell_F2, EU-TestCell_TC4, EU-TestCell_I3, EU-TestCell_I5, EU-TestCell_I6, EU-TestCell_T2
FG-PHASE3	Dynamometer testing facilities that include 20 engine-driven and engine-only dynamometer test cells. Three regenerative thermal oxidizers are used to control hydrocarbon and carbon monoxide emissions from the Phase 3 and Phase 3A test cells.	EU-TestCell_E3 EU-TestCell_B4 EU-TestCell_B5 EU-TestCell_E4 EU-TestCell_F3 EU-TestCell_F4 EU-TestCell_I12 EU-TestCell_I13 EU-TestCell_I11 EU-TestCell_I14 EU-TestCell_I15 EU-TestCell_I16 EU-TestCell_I18 EU-TestCell_I7 EU-TestCell_I8 EU-TestCell_I9 EU-TestCell_I19 EU-TestCell_I20 EU-TestCell_I10 EU-TestCell_I17

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-PHASE3A	Five dynamometers (1.526 MMBTU/hr each) housed in the same building as the Phase 3 dynamometers, which were installed at a later date. Three regenerative thermal oxidizers are used to control hydrocarbon and carbon monoxide emissions from the Phase 3 and Phase 3A test cells.	EU-PHASE3-21, EU-PHASE3-22, EU-PHASE3-23, EU-PHASE3-24, EU-PHASE3-25
FC-CAM	40 CFR Part 64 (CAM Rule) requirements for FG-PHASE3 and FG-PHASE3A test cells RTOs.	EU-TestCell_E3, EU-TestCell_B4, EU-TestCell_B5, EU-TestCell_E4, EU-TestCell_F3, EU-TestCell_F4, EU-TestCell_I12, EU-TestCell_I13, EU-TestCell_I11, EU-TestCell_I14, EU-TestCell_I15, EU-TestCell_I16, EU-TestCell_I18, EU-TestCell_I7, EU-TestCell_I8, EU-TestCell_I9, EU-TestCell_I19, EU-TestCell_I20, EU-TestCell_I10, EU-TestCell_I17, EU-PHASE3-21, EU-PHASE3-22, EU-PHASE3-23, EU-PHASE3-24, EU-PHASE3-25
FG-GASDISPENSING	The flexible group specifies requirements for a gasoline dispensing facility (GDF) that is subject to 40 CFR Part 63, Subpart CCCCCC-National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories: Gasoline Dispensing Facilities. This flexible group includes existing and new/reconstructed stationary gasoline dispensing facilities that have a monthly gasoline throughput more than or equal to 10,000 gallons and less than 100,000 gallons and is located at an area source of hazardous air pollutants. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.	EU-AST1 EU-AST2 EU-AST3 EU-AST4
FG-RULE287(2)(c)	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a and Rule 287(2)(c). Emission units installed/modified before December 20, 2016, may show compliance with Rule 287 in effect at the time of installation/modification.	EU-FG287PAINTBTH

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-COLDCLEANERS	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 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.	EU-COLDCLEANERS

FG-PHASE2 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Phase II dynamometers used to test automatic transmissions.

Emission Units: EU-TestCell_A3, EU-TestCell_A4, EU-TestCell_A5, EU-TestCell_A6, EU-TestCell_A7, EU-TestCell_A8, EU-TestCell_B1, EU-TestCell_B2, EU-TestCell_B3, EU-TestCell_F1, EU-TestCell_F2, EU-TestCell_TC4, EU-TestCell_I3, EU-TestCell_I5, EU-TestCell_I6, EU-TestCell_T2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. CO	1.74 lb/gal gasoline ²	Hourly	FG-PHASE2	SC V.1	R 336.1205, 40 CFR 52.21(d)
2. VOC	24.2 tpy ^{2, A}	12-month rolling time period as determined at the end of each calendar month	FG-PHASE2	SC VI.3	R 336.1702(a)
3. Formaldehyde	953 lb/yr ^{1, A}	12-month rolling time period as determined at the end of each calendar month	FG-PHASE2	SC VI.3	R 336.1225(2)
4. Benzene	1,714 lb/yr ^{1, A}	12-month rolling time period as determined at the end of each calendar month	FG-PHASE2	SC VI.3	R 336.1225(2)
5. Acetaldehyde	6,698 lb/yr ^{1, A}	12-month rolling time period as determined at the end of each calendar month	FG-PHASE2	SC VI.3	R 336.1225(2)
6. 1,3-butadiene	576 lb/yr ^{1, A}	12-month rolling time period as determined at the end of each calendar month	FG-PHASE2	SC VI.3	R 336.1225(2)

See Appendix 7

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Gasoline	300,000 gal/yr ²	12-month rolling time period as determined at the end of each calendar month	FG-PHASE2	SC VI.2	R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
2. Diesel	80,000 gal/yr ²	12-month rolling time period as determined at the end of each calendar month	FG-PHASE2	SC VI.2	R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d)

3. The permittee shall not burn fuels other than gasoline and diesel (including biodiesel) in FG-PHASE2.² **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not perform wide-open-throttle engine testing in FG-PHASE2.² **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device (or devices) to monitor the total gasoline and diesel usage for FG-PHASE2.² **(R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

1. The permittee shall verify CO emission factors, specified in SC I.1, by testing one or more representative emission units of FG-PHASE2, while burning gasoline. Testing shall be performed at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
CO	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 and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall verify the CO emission factors for FG-PHASE2, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of gasoline usage and diesel usage for FG-PHASE2, as required by SC II.1 and II.2.² **(R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d))**
3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period emission calculation records of VOC, formaldehyde, benzene, acetaldehyde, and 1,3-butadiene for FG-PHASE2, as required by SC I.2, I.3, I.4, I.5, and I.6, and Appendix 7.² **(R 336.1205(1)(a) & (b), R 336.1702(a))**
4. The permittee shall keep a record of the type of engine testing performed in each emission unit of FG-PHASE2, to show compliance with SC III.1.² **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), 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))**

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. SVEEF1	12 ²	68 ²	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVEEF2	12 ²	68 ²	R 336.1225, 40 CFR 52.21(c) & (d)
3. SVEEF3	12 ²	61 ²	R 336.1225, 40 CFR 52.21(c) & (d)
4. SVEEF4	12 ²	61 ²	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

FG-PHASE3 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Dynamometer testing facilities that include 20 engine-driven and engine-only dynamometer test cells. Three regenerative thermal oxidizers are used to control hydrocarbon and carbon monoxide emissions from the Phase 3 and Phase 3A test cells.

Emission Units: EU-TestCell_E3, EU-TestCell_B4, EU-TestCell_B5, EU-TestCell_E4, EU-TestCell_F3, EU-TestCell_F4, EU-TestCell_I12, EU-TestCell_I13, EU-TestCell_I11, EU-TestCell_I14, EU-TestCell_I15, EU-TestCell_I16, EU-TestCell_I18, EU-TestCell_I7, EU-TestCell_I8, EU-TestCell_I9, EU-TestCell_I19, EU-TestCell_I20, EU-TestCell_I10, EU-TestCell_I17

POLLUTION CONTROL EQUIPMENT

Regenerative Thermal Oxidizer 1, Regenerative Thermal Oxidizer 2, Regenerative Thermal Oxidizer 3

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NO _x	2073.6 lb/day ²	Calendar Day (prorated from monthly).	FG-PHASE3	SC VI.5	40 CFR 52.21
2. NO _x	51.1 tpy ²	12-month rolling time period as determined at the end of each calendar month.	FG-PHASE3	SC VI.4	R 336.1205(1)(a) & (b), R 336.2802(4)(d), 40 CFR 52.21(a)(2)(iv)(d), 40 CFR 52.21(c) & (d)
3. NO _x	86.4 pph ²	Hourly	FG-PHASE3	SC V.1	R 336.1205(1)(a) & (b), R 336.2802(4)(d), 40 CFR 52.21(a)(2)(iv)(d), 40 CFR 52.21(c) & (d)
4. NO _x	544.0 lb/MMcf of natural gas ²	Hourly	FG-PHASE3	SC V.2	R 336.1205(1)(a) & (b), R 336.2802(4)(d), 40 CFR 52.21(a)(2)(iv)(d), 40 CFR 52.21(c) & (d)
5. SO ₂	461.1 lbs/day ²	Calendar Day (prorated from monthly).	FG-PHASE3	SC VI.5, SC VI.7	40 CFR 52.21
6. SO ₂	9.1 tpy ²	12-month rolling time period as determined at the end of each calendar month.	FG-PHASE3	SC VI.4, SC VI.7	R 336.1205(1)(a) & (b), R 336.2802(4)(d), 40 CFR 52.21(a)(2)(iv)(d), 40 CFR 52.21(c) & (d)
7. VOC	207.36 lb/day ²	Calendar Day (prorated from monthly)	FG-PHASE3	SC VI.5	R 336.1702(c), 40 CFR 52.21

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
8. VOC	5.1 tpy ²	12-month rolling time period as determined at the end of each calendar month.	FG-PHASE3	SC VI.4	R 336.1205(1)(a) & (b), R 336.1702(a), R 336.2802(4)(d), 40 CFR 52.21(a)(2)(iv)(d)
9. VOC	8.64 pph ²	Hourly	FG-PHASE3	SC V.1	R 336.1205(1)(a) & (b), R 336.1702(a), R 336.2802(4)(d), 40 CFR 52.21(a)(2)(iv)(d)
10. CO	111.8 tpy ²	12-month rolling time period as determined at the end of each calendar month.	FG-PHASE3	SC VI.4	R 336.1205(1)(a) & (b), R 336.2802(4)(d), 40 CFR 52.21(a)(2)(iv)(d), 40 CFR 52.21(d)
11. CO	189.12 pph ²	Hourly	FG-PHASE3	SC V.1	R 336.1205(1)(a) & (b), R 336.2802(4)(d), 40 CFR 52.21(a)(2)(iv)(d), 40 CFR 52.21(d)
12. PM10	9.9 tpy ²	12-month rolling time period as determined at the end of each calendar month.	FG-PHASE3	SC VI.4	R 336.1205(1)(a) & (b), R 336.2802(4)(d), 40 CFR 52.21(a)(2)(iv)(d), 40 CFR 52.21(c) & (d)
13. PM2.5	9.9 tpy ²	12-month rolling time period as determined at the end of each calendar month.	FG-PHASE3	SC VI.4	R 336.1205(1)(a) & (b), R 336.2802(4)(d), 40 CFR 52.21(a)(2)(iv)(d), 40 CFR 52.21(c) & (d)
Controlled Emission Factors with thermal oxidizer control use the emission factors below or established from most-recent stack test, as accepted by the AQD District Supervisor, as determined by SC V.1.					
Worst case for all fuels other than natural gas for NO _x			Natural Gas		
NO _x – 0.18 lb/gallon (from 2017 Stack Test) SO ₂ – 0.29 lb/MMBTU for diesel and 0.084 lb/MMBTU for gasoline VOC – 0.018 lb/gallon CO – 0.394 lb/gallon PM10 – 0.0425 lb/gallon PM2.5 – 0.31 lb/MMBTU for diesel and 0.1 lb/MMBTU for gasoline			NO _x – 544.0 lb NO _x /MMcf of natural gas		
Where: 0.125 MMBTU/gallon for gasoline, 0.138 MMBTU/gallon for diesel 1,028 BTU/cf for natural gas, and 121.5 cf of natural gas equivalent to 1 gallon of gasoline					

II. MATERIAL LIMIT(S)

- The fuel usage for FG-PHASE3 shall not exceed 11,520 gallons per calendar day.² (R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))

2. The fuel usage for FG-PHASE3 shall not exceed 567,500 gallons per year based on a 12-month rolling time period as determined at the end of each calendar month.² (R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), R 336.2802(4)(d), 40 CFR 52.21(a)(2)(iv)(d), 40 CFR 52.21(c) & (d))
3. The fuel usage for FG-PHASE3 shall not exceed 415,000 gallons of diesel and diesel-like fuels of the 567,500 gallons total fuel restriction per year based on a 12-month rolling time period as determined at the end of each calendar month.² (R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), R 336.2802(4)(d), 40 CFR 52.21(a)(2)(iv)(d), 40 CFR 52.21(c) & (d))
4. The permittee shall burn only gasoline, alcohol blends/gasoline fuel blend (up to 100% ethanol), diesel (all variations, including European, Asian, South American, etc.), kerosene, hydrogen, LPG (or propane), and natural gas in FG-PHASE3.² (R 336.1205(1)(a) & (b), R 336.1224, R 336.1225, R 336.1901, R 336.2802(4)(d), 40 CFR 52.21(a)(2)(iv)(d), 40 CFR 52.21(c) & (d))
5. The permittee shall not use leaded gasoline in FG-PHASE3.² (R 336.1205(1)(a) & (b), R 336.1224, R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d))

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FG-PHASE3 unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the Regenerative Thermal Oxidizers, has been 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 to the AQD District Supervisor for review and approval. For any amendments to the MAP relating to requirements of Rule 911(2), 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 not operate Banks 5, 6, or 7 of FG-PHASE3 unless the sufficient regenerative thermal oxidizer capacity, is installed, maintained and operated in a satisfactory manner. Satisfactory operation includes maintaining a minimum temperature of 1400°F and a minimum retention time of 0.5 second in the associated regenerative thermal oxidizer.² (R 336.1910)
2. The permittee shall not operate FG-PHASE3 unless each thermal oxidizer used in the operating test cells is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer includes maintaining a minimum combustion chamber temperature of 1400°F and a minimum retention time of 0.5 seconds. In lieu of a minimum temperature, the permittee may use an average temperature of 1400°F based upon a three-hour rolling average.² (R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), R 336.1910, 40 CFR 52.21(c) & (d))
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the daily natural gas usage rate, on a continuous basis, in cubic feet per day.² (R 336.1205, R 336.2802, 40 CFR 52.21)
4. The permittee shall install, calibrate, maintain, and operate, in a satisfactory manner, temperature monitoring devices in the thermal oxidizers in appropriate locations to monitor and record the temperature on a continuous basis as specified in SC VI.2, during operation of FG-PHASE3.² (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 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. Once every five years, the following parameters shall be tested/recorded for the worst-case fuel for one of the regenerative thermal oxidizers:

Pollutant	Test Method Reference
NO _x	40 CFR Part 60, Appendix A
CO	40 CFR Part 60, Appendix A
VOCs	40 CFR Part 60, Appendix A

No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to 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. Testing may be coordinated with the ROP renewal issuance and testing shall continue to be completed for one of the regenerative thermal oxidizers once every five years. A different regenerative thermal oxidizer shall be tested every five years.² **(R 336.1702(a), R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

2. Within 180 days after commencement of trial operation of operating natural gas fueled engines for purposes of testing natural gas fueled engines or engine systems, the permittee shall verify the natural gas NO_x emission factor from FG-PHASE3, by testing at owner's expense, in accordance with Department requirements. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to 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 **(R 336.2001, R 336.2003, R 336.2004, R 336.2802(4)(d), 40 CFR 52.21(a)(2)(iv)(d), 40 CFR 52.21(c) & (d))**
3. Testing required in SC V.2 shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
NO _x	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 and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

4. The permittee shall verify the NO_x, CO, and VOC emission rates for FG-PHASE3, using the worst-case scenario fuel, from at least one of the regenerative thermal oxidizers, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
5. When natural gas fueled engines or engine systems are operated, the permittee shall verify the NO_x emission factor for operating natural gas fueled engines for the purposes of testing natural gas fueled engines or engine systems in FG-PHASE3, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
6. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**
2. The permittee shall monitor, in a satisfactory manner, the temperature in the combustion chamber of the thermal oxidizer on a continuous basis, during operation of FG-PHASE3. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval.² **(R 336.1225, R 336.1702(a), R 336.1910, 40 CFR 52.21(c) & (d))**
3. The permittee shall monitor and record, in a satisfactory manner, the daily natural gas usage rate in cubic feet per day for FG-PHASE3. 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, R 336.2802, 40 CFR 52.21)**
4. The permittee shall keep the following information on a monthly basis for FG-PHASE3:
 - a. A record of the days of operation.
 - b. Gallons of each fuel used per month and 12-month rolling time period.
 - c. NO_x emission calculations determining the monthly emission rate in tons per calendar month.
 - d. NO_x emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.
 - e. SO₂ emission calculations determining the monthly emission rate in tons per calendar month.
 - f. SO₂ emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.
 - g. VOC emission calculations determining the monthly emission rate in tons per calendar month.
 - h. VOC emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.
 - i. CO emission calculations determining the monthly emission rate in tons per calendar month.
 - j. 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.
 - k. PM₁₀ emission calculations determining the monthly emission rate in tons per calendar month.
 - l. PM₁₀ emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.
 - m. PM_{2.5} emission calculations determining the monthly emission rate in tons per calendar month.
 - n. PM_{2.5} emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

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 336.1224, R 336.1225, R 336.1702(a), R 336.2802(4)(d), 40 CFR 52.21(a)(2)(iv)(d), 40 CFR 52.21(c) & (d))**

5. The permittee shall keep the following information on a monthly basis for FG-PHASE3:
 - a. Daily fuel use calculations based upon the monthly fuel use divided by the number of days FG-PHASE3 operated during the calendar month.

- b. Daily NO_x emission calculations based upon the monthly NO_x emissions divided by the number of days FG-PHASE3 operated during the calendar month.
- c. Daily SO₂ emission calculations based upon the monthly SO₂ emissions divided by the number of days FG-PHASE3 operated during the calendar month.
- d. Daily VOC emission calculations based upon the monthly VOC emissions divided by the number of days FG-PHASE3 operated during the calendar month.

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 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

- 6. The permittee shall keep, in a satisfactory manner, operating temperature records for the thermal oxidizer as required by SC VI.2. If the measured operating temperature of the thermal oxidizer falls below 1400°F during operation of FG-PHASE3, the permittee may demonstrate compliance based upon a three-hour average temperature, by calculating the average operating temperature for each three hour period which includes one or more temperature readings below 1400°F. The permittee shall keep all records and calculations on file and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), R 336.1910, 40 CFR 52.21(c) & (d))**
- 7. The permittee shall determine the maximum sulfur content in each fuel using an ASTM-approved method or fuel supplier certification. See Appendix 7.² **(R 336.1205(1)(a) & (b), R 336.2802(4)(d), 40 CFR 52.21(a)(2)(iv)(d), 40 CFR 52.21(c) & (d))**
- 8. The permittee shall maintain a demonstration that the minimum retention time of 0.5 seconds is obtained for the regenerative thermal oxidizer. If such a demonstration cannot be shown through thermal oxidizer manufacturer provided design information, engineering calculations of maximum possible gas flow, based on the size of the ductwork, the size of the combustion chamber, and the size of the fan, or some alternative method acceptable to the AQD, then the permittee shall provide monitoring for inlet process gas flow rate on a daily basis during operation, acceptable to the AQD, for the regenerative thermal oxidizer which will allow for the assurance that the minimum 0.5 second retention time is maintained.² **(R 336.1910)**
- 9. The permittee shall keep in a satisfactory manner, records of monitoring and maintenance conducted to demonstrate that the Regenerative Thermal Oxidizers are operated and maintained according to the approved MAP in SC III.1. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3))**

See Appendices 4 and 7

VII. REPORTING

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

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. SVRTO1	44 ²	68.5 ²	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVRTO2	44 ²	68.5 ²	R 336.1225, 40 CFR 52.21(c) & (d)
3. SVRTO3	44 ²	68.5 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-PHASE3A FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Five dynamometers housed in the same building as the Phase 3 dynamometers, which were installed at a later date. Three regenerative thermal oxidizers are used to control hydrocarbon and carbon monoxide emissions from the Phase 3 and Phase 3A test cells.

Emission Units: EU-PHASE3-21, EU-PHASE3-22, EU-PHASE3-23, EU-PHASE3-24, EU-PHASE3-25

POLLUTION CONTROL EQUIPMENT

Regenerative Thermal Oxidizer 1, Regenerative Thermal Oxidizer 2, Regenerative Thermal Oxidizer 3

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO _x	35.5 tpy ²	12-month rolling time period as determined at the end of each calendar month.	FG-PHASE3A	SC VI.3	R 336.1205(1)(a) & (3)
2. CO	58.1 tpy ²	12-month rolling time period as determined at the end of each calendar month.	FG-PHASE3A	SC VI.3	R 336.1205(1)(a) & (3)

Controlled Emission Factors with thermal oxidizer control. Use the emission factors below or established from most-recent stack test, as accepted by the AQD District Supervisor, as determined by SC V.1 in FG-PHASE3A.

Worst case for all fuels other than natural gas CO – 0.394 lb/gallon NO _x – 0.3 lb/gallon diesel NO _x – 0.2 lb/gallon gasoline/other fuels	Natural Gas NO _x – 544.0 lb NO _x /MMcf of natural gas
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Where: 0.125 MMBTU/gallon for gasoline, 0.138 MMBTU/gallon for diesel, 1,028 BTU/cf for natural gas, and 121.5 cf natural gas equivalent to 1 gallon of gasoline

II. MATERIAL LIMIT(S)

- The fuel usage for FG-PHASE3A shall not exceed 4,752 gallons per calendar day.² (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))
- The fuel usage for FG-PHASE3A shall not exceed 295,000 gallons per year based on a 12-month rolling time period as determined at the end of each calendar month.² (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))
- The fuel usage for FG-PHASE3A shall not exceed 120,000 gallons of diesel and diesel-like fuels of the 295,000 gallons total fuel restriction per year based on a 12-month rolling time period as determined at the end of each calendar month.² (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))

4. The permittee shall burn only gasoline, alcohol blends/gasoline fuel blend (up to 100% ethanol), diesel (all variations, including European, Asian, South American, etc.), kerosene, hydrogen, LPG (or propane), and natural gas in FG-PHASE3A.² **(R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**
5. The permittee shall not use leaded gasoline in FG-PHASE3A.² **(R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FG-PHASE3A unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the Regenerative Thermal Oxidizers, has been 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 to the AQD District Supervisor for review and approval. For any amendments to the MAP relating to requirements of Rule 911(2), 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 not operate FG-PHASE3A unless each thermal oxidizer used in the operating test cells is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer includes maintaining a minimum combustion chamber temperature of 1400°F and a minimum retention time of 0.5 seconds. In lieu of a minimum temperature, the permittee may use an average temperature of 1400°F based upon a three-hour rolling average.² **(R 336.1910)**
2. The permittee shall install, calibrate, maintain, and operate, in a satisfactory manner, temperature monitoring devices in the thermal oxidizers in appropriate locations to monitor and record the temperature on a continuous basis as specified in SC VI.2, during operation of FG-PHASE3A.² **(R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), R 336.1910, 40 CFR 52.21(c) & (d))**
3. The permittee shall install, calibrate, maintain, and operate, in a satisfactory manner, a device to monitor and record the daily natural gas usage rate, on a continuous basis, in cubic feet per day.² **(R 336.1205(1)(a) & (3), 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. The permittee shall verify CO and NOx emission rates for FG-PHASE3A, using the worst-case scenario fuel, from at least one of the regenerative thermal oxidizers, by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
NOx	40 CFR Part 60, Appendix A
CO	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 and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the

AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall verify the NO_x and CO emission rates for FG-PHASE3A, using the worst-case scenario fuel, from at least one of the regenerative thermal oxidizers, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R336.2001, R336.2003, R336.2004)**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**
2. 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 FG-PHASE3A. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval.² **(R 336.1225, R 336.1702(a), R 336.1910, 40 CFR 52.21(c) & (d))**
3. The permittee shall keep the following information on a monthly basis for FG-PHASE3A:
 - a. Usage of each fuel per calendar day, calendar month, and 12-month rolling time period.
 - b. Usage of diesel and diesel-like fuel per calendar month and 12-month rolling time period.
 - c. Usage of total fuel per calendar month and 12-month rolling time period.
 - d. NO_x emission calculations determining the monthly emission rate in tons per calendar month.
 - e. NO_x emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.
 - f. CO emission calculations determining the monthly emission rate in tons per calendar month.
 - g. 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.

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) & (3), 40 CFR 52.21(c) & (d))**

4. The permittee shall keep, in a satisfactory manner, operating temperature records for the thermal oxidizer as required by SC VI.2. If the measured operating temperature of the thermal oxidizer falls below 1400°F during operation of FG-PHASE3A, the permittee may demonstrate compliance based upon a three-hour average temperature, by calculating the average operating temperature for each three hour period which includes one or more temperature readings below 1400°F. The permittee shall keep all records and calculations on file and make them available to the Department upon request.² **(R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), R 336.1910, 40 CFR 52.21(c) & (d))**
5. The permittee shall determine the maximum sulfur content in each fuel using an ASTM-approved method or fuel supplier certification. See Appendix 7.² **(R 336.1205(1)(a) & (3), 40 CFR 52.21(c) & (d))**
6. The permittee shall maintain a demonstration that the minimum retention time of 0.5 seconds is obtained for the regenerative thermal oxidizer. If such a demonstration cannot be shown through thermal oxidizer manufacturer provided design information, engineering calculations of maximum possible gas flow, based on the size of the ductwork, the size of the combustion chamber, and the size of the fan, or some alternative method acceptable to the AQD, then the permittee shall provide monitoring for inlet process gas flow rate on a daily basis during

operation, acceptable to the AQD, for the regenerative thermal oxidizer which will allow for the assurance that the minimum 0.5 second retention time is maintained.² **(R 336.1910)**

7. The permittee shall keep in a satisfactory manner, records of monitoring and maintenance conducted to demonstrate that the Regenerative Thermal Oxidizers are operated and maintained according to the approved MAP in SC III.1. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3))**

See Appendix 7

VII. REPORTING

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

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. SVRTO1	44	68.5	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVRTO2	44	68.5	R 336.1225, 40 CFR 52.21(c) & (d)
3. SVRTO3	44	68.5	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-CAM FLEXIBLE GROUP CONDITIONS

DESCRIPTION

40 CFR 64 (CAM Rule) requirements for FG-PHASE3 and FG-PHASE3A test cells RTOs.

Emission Units: EU-TestCell_E3, EU-TestCell_B4, EU-TestCell_B5, EU-TestCell_E4, EU-TestCell_F3, EU-TestCell_F4, EU-TestCell_I12, EU-TestCell_I13, EU-TestCell_I11, EU-TestCell_I14, EU-TestCell_I15, EU-TestCell_I16, EU-TestCell_I18, EU-TestCell_I7, EU-TestCell_I8, EU-TestCell_I9, EU-TestCell_I19, EU-TestCell_I20, EU-TestCell_I10, EU-TestCell_I17, EU-PHASE3-21, EU-PHASE3-22, EU-PHASE3-23, EU-PHASE3-24, EU-PHASE3-25

POLLUTION CONTROL EQUIPMENT

Regenerative Thermal Oxidizer 1, Regenerative Thermal Oxidizer 2, Regenerative Thermal Oxidizer 3

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))**

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 continuously monitor the combustion chamber temperature and record every 15 minutes for an hourly average as an indicator of proper operation of the RTO during the operation of the FG-PHASE3 and FG-PHASE-3A. The indicator range is an average combustion chamber temperature greater than 1400°F based upon a three-hour rolling average. **(40 CFR 64.6(c)(1)(i) and (ii))**
2. The temperature monitor shall continuously monitor the RTO combustion chamber temperature. The averaging period is 3-hour. The monitor shall be calibrated annually or based on the manufacturer recommendations, whichever is more frequent. **(40 CFR 64.6(c)(1)(iii))**
3. An excursion is a combustion chamber temperature below 1400°F based on a 3-hour hourly average. **(40 CFR 64.6(c)(2))**

4. Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) 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). The permittee shall follow the corrective actions specified in the Malfunction Abatement Plan (MAP) to address the excursions. **(40 CFR 64.7(d))**
5. 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 pollutant-specific emissions unit is operating. Data recorded during 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), 40 CFR 64.7(c))**
6. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
7. The permittee shall maintain 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))**

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/exceedances and the corrective actions taken. If there were no excursions/exceedances in the reporting period, then this report shall include a statement that there were no excursions/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))**
6. Each semiannual report of monitoring and deviations shall include a description of the actions taken to implement a Quality Improvement Plan (QIP) during the reporting period (if applicable). If a QIP has been completed, the report shall include documentation that the plan has been implemented and if it has reduced the likelihood of excursions or exceedances. **(40 CFR 64.9(a)(2)(iii))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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 of the CAM Plan 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))**
3. The permittee shall submit a QIP if the number of excursions exceeds 5 percent duration of the emission unit's operating time in the reporting period. **(40 CFR 64.8(a))**

FG-GASDISPENSING FLEXIBLE GROUP CONDITIONS

DESCRIPTION

The flexible group specifies requirements for a gasoline dispensing facility (GDF) that is subject to 40 CFR Part 63, Subpart CCCCCC-National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories: Gasoline Dispensing Facilities. This flexible group includes existing and new/reconstructed stationary gasoline dispensing facilities that have a monthly gasoline throughput more than or equal to 10,000 gallons and less than 100,000 gallons and is located at an area source of hazardous air pollutants. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.

Emission Units: EU-AST1, EU-AST2, EU-AST3, EU-AST4

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must, at all times, operate and maintain 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. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.11115(a))**
2. The permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:
 - a. Minimize gasoline spills. **(40 CFR 63.11116(a)(1), 40 CFR 63.11117(a))**
 - b. Clean up spills as expeditiously as practicable. **(40 CFR 63.11116(a)(2), 40 CFR 63.11117(a))**
 - c. Cover all pen gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use. **(40 CFR 63.11116(a)(3), 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)(4), 40 CFR 63.11117(a))**
3. Gasoline storage tanks with capacities of less than 250 gallons are not required to comply with the submerged fill requirements cited in 40 CFR 63.11117(b) but must comply only with all of the requirements in 40 CFR 63.11116. **(40 CFR 63.11117(c))**
4. If the GDF has a monthly throughput of 10,000 gallons of gasoline or more, the permittee must comply with the requirements in 40 CFR 63.11117. **(40 CFR 63.1111(c))**

5. If the GDF's throughput ever exceeds an applicable throughput threshold, the GDF will remain subject to the requirements for sources above the threshold, even if the affected source throughput later falls below the applicable throughput threshold. **(40 CFR 63.1111(i))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee must only load gasoline into storage tanks utilizing submerged filling, as defined in 40 CFR 63.11132, and as specified in 40 CFR 63.11117(b)(1), (2), and (3). The applicable distances in 40 CFR 63.11117(b)(1) and (2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank. **(40 CFR 63.11117(b))**
 - a. Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the 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 tank. **(40 CFR 63.11117(b)(2))**
 - c. Submerged fill pipes not meeting the specifications listed on 40 CFR 63.11117(b)(1) and (2) are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation for such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit. **(40 CFR 63.11117(b)(3))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep records of the monthly throughput of gasoline through each GDF. Records of the monthly throughput must be available within 24 hours of a request by the administrator to document gasoline throughput. **(40 CFR 63.11116(d))**
2. The permittee must keep applicable records as specified in 40 CFR 63.11125(d).
 - a. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. **(40 CFR 63.1115(b), 40 CFR 63.11125(d)(1))**
 - b. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. **(40 CFR 63.1115(b), 40 CFR 63.11125(d)(2))**

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 an initial notification that they are subject to this subpart by May 9, 2008, or no later than 120 days after the facility becomes subject to 40 CFR Part 63, Subpart CCCCCC or at the time the facility becomes subject to the control requirements in 40 CFR 63.11117, unless the facility meets the requirements in SC VII.6 below. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in 40 CFR 63.13. The initial notification must contain the following information: **(40 CFR 63.11117(e), 40 CFR 63.11124(a)(1))**
 - a. The name and address of the owner and the operator.
 - b. The address (i.e., physical location) of the GDF.
 - c. A statement that the notification is being submitted in response to this subpart (Gasoline Distribution Area MACT, 40 CFR Part 63 Subpart CCCCCC) and identifying the requirements in paragraphs (a), (b), and (c)(1) or paragraph (c)(2) of 63.11117 that apply to the facility.
5. The permittee shall submit a Notification of Compliance Status to the applicable USEPA Regional Office and the delegated state authority, as specified in 40 CFR 63.13, in accordance with the schedule specified in 40 CFR 63.9(h), unless the facility meets the requirements in SC VII.6 below. **(40 CFR 63.11124(a)(2))**
6. If, prior to January 10, 2008, facility was 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), the facility is not required to submit an Initial Notification or a Notification of Compliance Status under SC VII.4 or SC VII.5 listed above. **(40 CFR 63.11124(a)(3))**
7. The permittee must submit reports as specified in 40 CFR 63.11126(b). Each owner or operator of an affected source shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred. **(40 CFR 63.11126(b))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart CCCCCC, for Gasoline Dispensing Facilities. **(40 CFR Part 63, Subparts A and CCCCCC)**

**FG-RULE287(2)(c)
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a and Rule 287(2)(c). Emission units installed/modified before December 20, 2016, may show compliance with Rule 287 in effect at the time of installation/modification.

Emission Units installed on or after December 20, 2016: EU-FG287PAINTBTH

Emission Units installed prior to December 20, 2016: NA

POLLUTION CONTROL EQUIPMENT

Booth filters

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Underlying Applicable Requirement
1. Coatings	200 Gallons/month (minus water as applied)	Calendar month	Each emission unit	R 336.1287(2)(c)(i)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

- Any exhaust system installed on or after December 20, 2016, 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 permittee 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. All emission units installed before December 20, 2016, with an exhaust system that serves only coating spray equipment must have a properly installed and operated particulate control system. **(R 336.1213(2), R 336.1287(2)(c)(ii), R 336.1910)**

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 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-COLDCLEANERS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 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-COLDCLEANERS

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

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. 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 a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component, used in each cold cleaner. The data may consist of Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1213(3))**
4. 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))**
5. 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
CEMS	Continuous Emission Monitoring System	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
Department/ department	Michigan Department of Environment, Great Lakes, and Energy	gr	Grains
EGLE	Michigan Department of Environment, Great Lakes, and Energy	HAP	Hazardous Air Pollutant
EU	Emission Unit	Hg	Mercury
FG	Flexible Group	hr	Hour
GACS	Gallons of Applied Coating Solids	HP	Horsepower
GC	General Condition	H ₂ S	Hydrogen Sulfide
GHGs	Greenhouse Gases	kW	Kilowatt
HVLP	High Volume Low Pressure*	lb	Pound
ID	Identification	m	Meter
IRSL	Initial Risk Screening Level	mg	Milligram
ITSL	Initial Threshold Screening Level	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	NMOC	Non-methane Organic Compounds
MAP	Malfunction Abatement Plan	NO _x	Oxides of Nitrogen
MSDS	Material Safety Data Sheet	ng	Nanogram
NA	Not Applicable	PM	Particulate Matter
NAAQS	National Ambient Air Quality Standards	PM ₁₀	Particulate Matter equal to or less than 10 microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM _{2.5}	Particulate Matter equal to or less than 2.5 microns in diameter
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	%	Percent
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO ₂	Sulfur Dioxide
SDS	Safety Data Sheet	TAC	Toxic Air Contaminant
SNCR	Selective Non-Catalytic Reduction	Temp	Temperature
SRN	State Registration Number	THC	Total Hydrocarbons
TEQ	Toxicity Equivalence Quotient	tpy	Tons per year
USEPA/EPA	United States Environmental Protection Agency	µg	Microgram
VE	Visible Emissions	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

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in FG-PHASE3. Alternative formats or procedures must be approved by the AQD District Supervisor.

1. Fuel usage rate, gallons, prorated per Appendix 7:
 - daily
2. Fuel usage rate, gallons, non-prorated:
 - monthly
 - rolling 12-month time period

Should the prorated daily fuel usage rate exceed 90% of the daily limit, the permittee shall commence daily recordkeeping for a minimum of two months until the prorated rate falls below 90% of the weekly limit as calculated at the end of the month.

Appendix 5. Testing Procedures

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

Appendix 6. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-M4734-2011. 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-M4734-2011 is being reissued as Source-Wide PTI No. MI-PTI-M4734-2024

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
68-12C	202200211*	<ul style="list-style-type: none"> PTI No. 68-12 (2012)- permitted 22 dynos (FG-PHASE3) and underwent public comment. PTI No. 68-12A (2015)- only 20 of the 22 were installed from 68-12. The two new dynos proposed in this application were put into a new FG: FG-PHASE3A. PTI No. 68-12A was approved to allow Ford to install the two new dynamometers as their own separate flexible group (FG-PHASE3A). The two dynos were put into a new FG to simplify the review and reduce the project's significance to below the significant emissions rate. PTI No. 68-12B (2017)- added three new dynos to FG-PHASE3A (now five dynos in FG-PHASE3A). Still 20 dynos in FG-PHASE3. PTI No. 68-12C was to "upgrade" two of the existing dynos in FG-PHASE3 (not 3A). This upgrade involves changing test cells I-12 and I-13 (which currently perform rear wheel drive transmission testing) from medium torque to high torque cells to accommodate testing of electric driven transmissions systems while maintaining ability to continue testing existing internal combustion engines in those cells. Each of the two dynos are 845 hp. 	EU-TestCell_E3, EU-TestCell_B4, EU-TestCell_B5, EU-TestCell_E4, EU-TestCell_F3, EU-TestCell_F4, EU-TestCell_I12, EU-TestCell_I13, EU-TestCell_I11, EU-TestCell_I14, EU-TestCell_I15, EU-TestCell_I16, EU-TestCell_I18, EU-TestCell_I7, EU-TestCell_I8, EU-TestCell_I9, EU-TestCell_I19, EU-TestCell_I20, EU-TestCell_I10, EU-TestCell_I17, EU-PHASE3-21, EU-PHASE3-22, EU-PHASE3-23, EU-PHASE3-24, EU-PHASE3-25
32-18		PTI No. 32-18 limits HAP emissions from Ford ATNPC (M4734) and the Ford Livonia Transmission Plant (A8645). The HAP emissions from these two facilities are aggregated per the major source definition in the National Emissions Standards for Hazardous Air Pollutants regulations. Previously, the HAP limits were only established through the ROP process and were not Federally Enforceable. On May 1-2, 2018, Ford ATNPC and the Ford Livonia Transmission Plant, obtained the following permits PTI No. 32-18 and No. 34-18. These permits contain HAP emission limits to restrict the potential to emit of any single HAP regulated by the federal Clean Air Act, Section 112, to less than 10 tons per year and the potential to emit of all HAPs combined to less than 25 tons per year. PTI No. 32-18 has been incorporated into this ROP under the Source-wide conditions.	Source-Wide
44-22		PTI No. 44-22 was issued with limitations on the Phase II dynamometer operations via a PTI. The permittee did not propose any physical changes that would result in emission increases, but they have submitted a PSD applicability analysis comparing their past actual emissions to the proposed allowable emissions (Actual to Potential test).	FG-PHASE2

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
		The Phase II dynamometers are used for transmission testing, which is done via a standardized test that lasts for approximately 1,400 hours (almost 60 days). During this test, the transmission is run through the equivalent of 100,000 miles of durability testing. The engine is run at varying speeds to test the full range of the transmission's capabilities. There is no "wide open throttle" engine testing conducted in these test cells.	

Appendix 7. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FG-PHASE2, FG-PHASE3 and FG-PHASE3A.

FG-PHASE2

Procedures for Calculating Annual Emissions

The permittee shall demonstrate compliance with the VOC, benzene, 1,3-butadiene, formaldehyde, and acetaldehyde emission limits for FG-PHASE2 (SC I.2, I.3, I.4, I.5, and I.6) by keeping track of fuel usage for FG-PHASE2 and multiplying that fuel usage by an equipment-specific emission factor. The emission factors are typically expressed as the mass of pollutant per unit of fuel.

The permittee shall use the following emission factors for FG-PHASE2, per PTI No. 44-22_Rev1, unless other emission factors become available from source-specific testing (stack testing). If emission factors from other sources are used, the permittee shall obtain the approval of the AQD District Supervisor before using the emission factors to calculate emissions.

Pollutant	Gasoline Emission Factor (lb/gal fuel)	Diesel Emission Factor (lb/gal fuel)
VOC	1.48×10^{-1}	4.93×10^{-2}
formaldehyde	3.13×10^{-3}	1.62×10^{-4}
benzene	5.68×10^{-3}	1.28×10^{-4}
acetaldehyde	2.23×10^{-2}	1.05×10^{-4}
1,3-butadiene	1.92×10^{-3}	5.37×10^{-6}

FG-PHASE3

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FG-PHASE3. Alternative calculations must be approved by the AQD District Supervisor.

Prorated daily fuel usage, gallons = (Monthly fuel usage in gallons) / (days of operation per month).

Daily SO₂ emissions, pounds = (Prorated daily fuel usage in gallons) x (sulfur content of fuel, pounds per gallon) x (2 pounds SO₂ / pound sulfur) summed for each fuel (e.g., diesel, unleaded gasoline) used.

Annual SO₂ emissions, tons = (Annual fuel usage in gallons) x (sulfur content of fuel, pounds per gallon) x (2 pounds SO₂ / pound sulfur) x (ton / 2000 pounds) summed for each fuel (e.g. diesel, unleaded gasoline) used.

Daily NO_x emissions, pounds = (Prorated daily fuel usage in gallons) * (NO_x emission factor, pounds per gallon) summed for each fuel (e.g. diesel, unleaded gasoline) used.

Annual NO_x emissions, tons = (Annual fuel usage in gallons) * (NO_x emissions factor, pounds per gallon) * (ton/2000 lbs) summed for each fuel (e.g. diesel, unleaded gasoline) used.

Daily VOC emissions, pounds = (Prorated daily fuel usage in gallons) * (VOC emission factor, pounds per gallon) summed for each fuel (e.g. diesel, unleaded gasoline) used.

Annual VOC emissions, tons = (Annual fuel usage in gallons) * (VOC emission factor, pounds per gallon) * (ton/2000 pounds) summed for each fuel (e.g. diesel, unleaded gasoline) used.

Annual CO emissions, tons = (Annual fuel usage in gallons) * (CO emission factor, pounds per gallon) * (ton/2000 pounds) summed for each fuel (e.g. diesel, unleaded gasoline) used.

Annual PM₁₀ emissions, tons = (Annual fuel usage in gallons) * (PM₁₀ emission factor, pounds per gallon) * (ton/2000 pounds) summed for each fuel (e.g. diesel, unleaded gasoline) used.

Annual PM_{2.5} emissions, tons = (Annual fuel usage in gallons) * (PM_{2.5} emission factor, pounds per gallon) * (ton/2000 pounds) summed for each fuel (e.g. diesel, unleaded gasoline) used.

FG-PHASE3A

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FG-PHASE3A. Alternative calculations must be approved by the AQD District Supervisor.

Annual NO_x emissions, tons = (Annual fuel usage in gallons) * (NO_x emissions factor, pounds per gallon) * (ton/2000 lbs) summed for each fuel (e.g. diesel, unleaded gasoline) used.

Annual CO emissions, tons = (Annual fuel usage in gallons) * (CO emission factor, pounds per gallon) * (ton/2000 pounds) summed for each fuel (e.g. diesel, unleaded gasoline) used.

Appendix 8. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use 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.