

COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD

9VAC5 CHAPTER 530.

ELECTRIC GENERATOR VOLUNTARY DEMAND RESPONSE GENERAL PERMIT.

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PART I.
Definitions.

9VAC5-530-10. General.

A. For the purpose of this chapter or any orders issued by the board, the words or terms shall have the meanings given them in 9VAC5-530-20.

B. Unless specifically defined in the Virginia Air Pollution Control Law or in this chapter, terms used shall have the meanings given them by 9VAC5-80-1110 (definitions, Permits for New and Modified Stationary Sources), 9VAC5-10-20 (general definitions, Regulations for the Control and Abatement of Air Pollution), 9VAC5-170-20 (definitions, Regulation for General Administration), or commonly ascribed to them by recognized authorities, in that order of priority.

9VAC5-530-20. Terms defined.

"Affected unit" means one or more electric generating units subject to the provisions of this Chapter.

"Aggregate rated electrical power output" means (i) the sum or total rated electrical power output for all affected units involved in the application or (ii) in nonattainment areas, the sum or total rated electrical output for all electric generating units, permitted or exempt, located at the facility.

"Attainment area" means any area (other than an area identified as a nonattainment area) that meets the national primary or secondary ambient air quality standards for any pollutant pursuant to § 107 of the federal Clean Air Act.

"Biodiesel fuel" means a fuel comprised of mono-alkyl esters of long chain fatty acids derived from vegetable or animal fats, designated B100, and meeting the requirements of ASTM D6751.

"Biodiesel blends" means a blend of biodiesel and petroleum diesel fuel meeting either the requirements of ASTM D975 (blends up to 5%) or ASTM D7467 (blends between 6% and 20% biodiesel) and designated Bxx where xx represents the biodiesel content of the blend, e.g., B20 for a blend of 20% biodiesel and 80% petroleum diesel fuel.

"Compression ignition unit" or "CI unit" means a type of stationary internal combustion engine that is not a spark ignition engine.

"Demand response" means measures aimed at shifting time of use of electricity from peak-use periods to times of lower demand by inducing retail customers to curtail electricity usage during periods of congestion and higher prices in the electrical grid. Demand response actions are typically undertaken by the source owner in response to a request from a utility or electrical grid system operator or in response to market prices. Demand response participants do not include affected units that are participating in an ISO's Manual 13 Emergency Operations program.

"Diesel fuel" means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360°C and that complies with the specifications for S15 diesel fuel oil, as defined by the American Society for Testing and Materials in ASTM D975.

"Electric generating unit" means a stationary internal combustion engine that participates in a nonemergency voluntary demand response program (i.e., load curtailment, demand response, peak shaving or like program).

"Emergency" means a condition that arises from sudden and reasonably unforeseeable events where the primary energy or power source is disrupted or disconnected due to conditions beyond the control of an owner or operator of a source including any of the following:

1. A failure of the electrical grid.
2. On-site disaster or equipment failure.
3. Public service emergencies such as flood, fire, natural disaster, or severe weather conditions.
4. An ISO-declared emergency, where an ISO emergency is any of the following:
 - a An abnormal system condition requiring manual or automatic action to maintain system frequency, to prevent loss of firm load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property.
 - b Capacity deficiency or capacity excess conditions.
 - c A fuel shortage requiring departure from normal operating procedures in order to minimize the use of such scarce fuel.
 - d Abnormal natural events or man-made threats that would require conservative operations to posture the system in a more reliable state.
 - e An abnormal event external to the ISO service territory that

may require ISO action.

"Emergency generator or generation source" means a stationary internal combustion engine that operates only during an emergency, required maintenance or operability and emissions testing.

"General permit" means, for an electric generating unit or units the terms and conditions in either Part IV (9VAC5-530-140 et seq.) or Part V (9VAC5-530-220) of this chapter that meet the requirements of Part II (9VAC5-530-30 et seq.) and Part III (9VAC5-530-90 et seq.) of this chapter and issued under the provisions of 9VAC5-80-1250.

"Identical affected units" mean electric generating units that have the same make, manufacturer, model, year, size, and fuel specifications.

"Independent system operator" or "ISO" means a person that may receive or has received, by transfer pursuant to § 56-576 of the Code of Virginia, any ownership or control of, or any responsibility to operate, all or part of the transmission systems in the Commonwealth.

"Integration operational period" means that period of time beginning with the first time the affected unit is started on site and ending when the affected unit is fully integrated with the source's electrical system. In no case shall this period exceed 30 days.

"Kilowatt (kW) to brake horsepower (bhp)" means the conversion of 1 kW = 1.341 bhp.

"Load curtailment" means an action similar to demand response, with the specific removal or reduction of electrical loads for a limited period of time from a utility grid system in response to a request from the utility or electrical grid system operator.

"Major new source review (major NSR) program" means a preconstruction review and permit program (i) for new major stationary sources or major modifications (physical changes or changes in the method of operation), (ii) established to implement the requirements of §§ 112, 165 and 173 of the federal Clean Air Act and associated regulations, and (iii) codified in Article 1 (9VAC5-80-50 et seq.), Article 7 (9VAC5-80-1400 et seq.), Article 8 (9VAC5-80-1605 et seq.) and Article 9 (9VAC5-80-2000 et seq.) of Part II (Permit Procedures) of 9VAC5-80 (Permits for Stationary Sources).

"Manufacturer certified emissions" means the emission levels from a stationary CI engine as identified according to the manufacturers' specifications applicable to that engine's family and model year.

"Model year" means either (i) the calendar year in which the engine was originally produced, or (ii) the annual new model production period of the engine manufacturer if it is different than the calendar year. This must include January 1 of the

calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year. For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was originally produced.

"Nonattainment area" means any area that does not meet the national ambient air quality standards for any pollutant pursuant to § 107 of the federal Clean Air Act and listed in 9VAC5-20-204.

"Operation" means the burning of fuel regardless of whether electricity is generated.

"Peak shaving" means measures aimed solely at shifting time of use of electricity from peak-use periods to times of lower demand by inducing retail customers to curtail electricity usage during periods of congestion and higher prices in the electrical grid. Peak shaving is typically undertaken at a source owner's discretion in order to reduce maximum electrical usage and, therefore, cost of electrical service to the source owner.

"Spark ignition unit" or "SI unit" means a natural gas or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

"Startup" means the date on which each affected unit completes the integration period, unless an extension for startup notification as stated in 9VAC5-530-210 A 4 or 9VAC5-530-290 A 4 is approved by the department. An extension request must be submitted seven days prior to the end of the 30-day integration operational period.

"Tier 4 engine or equivalent" means a compression ignition electric generating unit that meets Tier 4 standards of 40 CFR Part 1039, or for engines greater than 10 liters per cylinder, 40 CFR Part 1042, whether by Tier 4 certification or by add-on controls to meet the applicable emission standards for the model year and size of the engine.

"Virginia Air Pollution Control Law" means chapter 13 (§ 10.1-1300 et seq.) of Title 10.1 of the Code of Virginia.

PART II. GENERAL PROVISIONS.

9VAC5-530-30. Purpose.

The purpose of this general permit is to establish requirements covering an emissions unit category pursuant to § 10.1-1308 of the Code of Virginia and 9VAC5-80-1250.

9VAC5-530-40. Applicability and designation of affected emissions unit.

A. This chapter applies to each affected unit (i) for which construction, addition, replacement, modification or operation is commenced on or after June 28, 2011, (ii) does not meet the permit exemption thresholds of 9VAC5-80-1105 C 1 or 9VAC5-1105-D 1 and (iii) and meets the requirements stated below:

1. For CI units located in either an attainment or nonattainment area with an aggregate rated electrical power output less than or equal 58,886 kW (78,966 bhp).

2. For SI units located in an attainment area with an aggregate rated electrical power output less than or equal to 60,970kW (81,761 bhp.)

3. For SI units located in a nonattainment area with an aggregate rated electrical power output less than or equal to 37,750 kW (50,623 bhp).

B. This chapter applies throughout the Commonwealth of Virginia.

C. The following affected units shall not be eligible for this general permit:

1. Any electric generating unit that is subject to the provisions of the major new source review program as defined under this chapter.

2. Any electric generating unit that is an emergency generator.

9VAC5-530-50. General.

A. Any owner requesting authority to operate an affected unit shall comply with the requirements of 9VAC5-80 (Permits for Stationary Sources) and register with the department as required under 9VAC5-20-160. Not all parts of the general permit will apply to every owner. The determination of which parts apply will be based on where the unit is located and method of compliance determination. Parts I, II and III of this chapter apply to all owners. Part IV of this chapter will apply to affected units using fuel throughput for compliance determination. Part V of this chapter will apply to affected units using hours of operation for compliance determination.

B. The existence of a permit under this chapter shall not constitute a defense of a violation of the Virginia Air Pollution Control Law or the regulations of the board and shall not relieve any owner of the responsibility to comply with any applicable

regulations, laws, ordinances and orders of the governmental entities having jurisdiction.

C. The owner shall, upon request of the department, reduce the level of operation or shut down an affected unit, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.

D. This general permit to construct or modify each affected unit shall become invalid, unless an extension is granted by the department, if:

1. A program of continuous construction or modification is not commenced within eighteen months from the date that this general permit is issued to the owner; or

2. A program of construction or modification is discontinued for a period of 18 months or more, or is not completed within a reasonable time, except for a department-approved period between phases of a phased construction project.

E. At all times, including periods of startup, shutdown, and malfunction, the owner shall, to the extent practicable, maintain and operate the affected unit, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

F. The owner shall develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

G. The owner shall have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

H. The owner shall train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment and shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

I. Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to department personnel upon request. If the site is remotely operated, the maintenance and training records may be kept offsite but shall be made available to the department within three business days of a department request.

J. The owner shall keep a copy of this general permit on the premises of the affected unit to which it applies.

9VAC5-530-60. Circumvention, suspension or revocation.

A. No owner shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air pollutants emitted, conceals or dilutes an emission of air pollutants which would otherwise violate this chapter.

B. This general permit may be suspended or revoked if the owner:

1. Knowingly makes material misstatements in the general permit application or any amendments to it.

2. Fails to comply with the conditions of this general permit.

3. Fails to comply with any emission standards applicable to an affected unit.

4. Causes emissions from the stationary source which result in violations of, or interfere with the attainment and maintenance of any ambient air quality standard.

5. Fails to operate in conformance with any applicable control strategy, including any emission standards or emission limitations, or applicable regulations of the board in effect at the time an application for this general permit is submitted.

9VAC5-530-70. Compliance.

A. Whenever it is necessary for the purpose of the regulations of the board, the board or an agent authorized by the board may at reasonable times enter an establishment or upon property, public or private, for the purpose of obtaining information or conducting surveys or investigations as authorized by § 10.1-1315 or § 46.2-1187.1 of the Code of Virginia.

B. The time for inspection shall be deemed reasonable during regular business hours or whenever the source is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.

C. Upon presentation of credentials and other documents as may be required by law, the owner shall allow the department to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of this general permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this general permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring equipment), practices, or operations regulated or required under this general

permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this general permit or applicable requirements.

9VAC5-530-80. Enforcement of a general permit.

A. The following general requirements apply:

1. Pursuant to § 10.1-1322, failure to comply with any term or condition of the general permit shall be considered a violation of the Virginia Air Pollution Control Law.

2. An owner who violates or fails, neglects or refuses to obey any provision of this chapter or the Virginia Air Pollution Control Law, any applicable requirement, or any permit term or condition, knowingly makes any false statement, representation or certification in any form, in any notice or report required by a permit, or who knowingly renders inaccurate any required monitoring device or method shall be subject to the provisions of §§ 10.1-1307, 10.1-1309, 10.1-1316, 10.1-1318 and 10.1-1320 of the Virginia Air Pollution Control Law.

B. Violation of this permit is subject to the enforcement provisions including, but not limited to, those contained in 9VAC5-170 (Regulation for General Administration) and §§ 10.1-1309, 10.1-1309.1, 10.1-1311 and 10.1-1316 of the Virginia Air Pollution Control Law.

C. If any condition, requirement or portion of this general permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of this general permit.

D. The owner shall comply with all applicable conditions of this general permit. Any noncompliance with this general permit constitutes a violation of the Virginia Air Pollution Control Law and is grounds (i) for enforcement action, or (ii) for suspension or revocation of the authorization to operate under this general permit.

E. It shall not be a defense for an owner 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 general permit.

F. The authorization to operate under this general permit may be suspended or revoked for cause as specified in 9VAC5-530-80. The filing by an owner of a (i) request for reauthorization to operate under this general permit, or (ii) notification of termination, planned changes or anticipated noncompliance does not stay any condition of this general permit.

G. This general permit does not convey any property rights of any sort, or any

exclusive privilege.

H. The owner shall furnish to the department, within 30 days of notification, any information that the department may request in writing to determine whether cause exists for suspending or revoking the authorization to operate under this general permit or to determine compliance with this general permit. Upon request, the owner shall also furnish to the department copies of records required to be kept by this general permit and, for information claimed to be confidential, the owner shall furnish such records to the department along with a claim of confidentiality meeting the requirements of 9VAC5-170-60.

PART III. GENERAL PERMIT ADMINISTRATIVE PROCEDURES.

9VAC5-530-90. Requirements for granting an authorization to operate under the general permit.

A. The department may grant an authorization to operate under the general permit for an affected unit that meets the applicability criteria in 9VAC5-530-40 and the operating limitations in 9VAC5-530-170 or 9VAC5-530-250.

B. The general permit will be issued in accordance with § 2.2-4006 A 8 of the Administrative Process Act.

9VAC5-530-100. Applications for coverage under the general permit.

A. The application for an affected unit shall meet the requirements of this chapter and include all information necessary to determine qualification for and to assure compliance with the general permit.

B. Any application form, report, compliance certification, or other document required to be submitted to the department under this chapter shall meet the requirements of 9VAC5-20-230.

C. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in an application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

9VAC5-530-110. Required information for initial applications.

A. The department will make application forms available to applicants. The information required by this section shall be determined and submitted according to procedures and methods acceptable to the department.

B. Each initial application for coverage under the general permit shall include, but not be limited to, the following:

1. Information specified in the appropriate air permit application form for an affected unit as determined by the department.

2. A document certification signed by a responsible official.

9VAC5-530-120. Granting an authorization to operate under the general permit.

A. The department may grant authorization to operate under the conditions and terms of the general permit to sources that meet the applicability criteria set forth in 9VAC5-530-40.

B. Granting an authorization to operate under the general permit to an affected unit covered by the general permit is not subject to the public participation procedures of 9VAC5-80-1170.

9VAC5-530-130. Transfer of authorizations to operate under the general permit.

A. No person shall transfer an authorization to operate under the general permit from one affected unit to another or from one piece of equipment to another.

B. In the case of a transfer of ownership of an affected unit, the new owner shall comply with any permit issued or authorization to operate under the general permit granted to the previous owner. The new owner shall notify the department of the change in ownership within 30 days of the transfer.

C. In the case of a name change of an affected unit, the owner shall comply with any permit issued or authorization to operate under the general permit granted under the previous source name. The owner shall notify the department of the change in source name within 30 days of the name change.

PART IV.

GENERAL PERMIT TERMS AND CONDITIONS FOR AN AFFECTED UNIT USING FUEL THROUGHPUT FOR COMPLIANCE DEMONSTRATION.

9VAC5-530-140. General permit.

A. Any owner whose application is approved by the director shall receive the following general permit and shall comply with the requirements in it and be subject to all requirements of this chapter and the regulations of the board.

B. In compliance with the provisions of the Virginia Air Pollution Control Law and regulations adopted pursuant to it, owners of affected units are authorized to operate under the authority of this general permit, except those where board regulations or policies prohibit such operation.

C. The authorization to operate under this general permit shall be in accordance with the cover letter to this general permit, 9VAC5-530-150 (General terms and conditions), 9VAC5-530-160 (Monitoring requirements) 9VAC5-530-170 (Operating limits), 9VAC5-530-180 (Emissions limits), 9VAC5-530-190 (Testing requirements), 9VAC5-530-200 (Recordkeeping requirements), and 9VAC5-530-210 (Reporting requirements).

9VAC5-530-150. General terms and conditions.

A. The owner is authorized to operate an affected unit located within the boundaries of the Commonwealth of Virginia, in accordance with the approved general permit application and conditions of this general permit except where board regulations or policies prohibit such activities.

B. The owner shall comply with the terms and conditions of this general permit prior to commencing any physical or operational change or activity that will result in making the source subject to the new source review program.

9VAC5-530-160. Monitoring requirements.

A. The owner shall install and use a fuel flow meter to monitor the fuel throughput for each affected unit, calculated monthly as the sum of each consecutive 12-month period.

B. Each fuel flow meter shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations.

C. The fuel flow meter used to continuously measure the fuel throughput for each affected unit shall be observed by the owner with a frequency of not less than once per month. The owner shall keep a log of the observations from the fuel flow meter.

9VAC5-530-170. Operating limits.

A. The approved fuels for each CI affected unit are diesel fuel, biodiesel fuel and biodiesel blends. These fuels shall meet the following specifications:

1. Diesel fuel which meets the ASTM D975 specification for S15 diesel fuel oil; maximum sulfur content per shipment, 0.0015%.

2. Biodiesel fuel which meets ASTM specification D6751; maximum sulfur content per shipment, 0.0015%.

B. The approved fuels for each SI affected unit are natural gas and liquid petroleum gas (LPG). These fuels shall meet the following specifications:

1. Natural gas with a minimum heat content of 1,000 Btu/scf HHV as determined by ASTM D1826, D2382, or an equivalent method approved by the department.

2. LPG, including butane and propane, which meets ASTM specification D1835 or an equivalent method approved by the department.

C. The CI affected unit or units located in either an attainment or nonattainment area, combined, shall consume no more than 502,766 gallons of diesel fuel or 554,230 gallons of biodiesel fuel per year, calculated monthly as the sum of each consecutive 12-month period.

1. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

2. For affected units using any combination of the two fuels, the quantities of diesel oil and biodiesel, calculated monthly as the sum of each consecutive 12-month period, shall not exceed values that will allow the following equation to hold true:

$$A \times (140,000 \text{ Btu/gal}) + B \times (127,000 \text{ Btu/gal}) \leq 70,387 \times 10^6 \text{ Btu/yr}$$

where:

A = Number of gallons of diesel fuel burned during any consecutive 12-month period.

B = Number of gallons of biodiesel burned during any consecutive 12-month period.

D. The SI affected unit or units combined located in an attainment area shall consume no more than 775,300 gallons of LPG or 72.88×10^6 cubic feet of natural gas per year, calculated monthly as the sum of each consecutive 12-month period.

1. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

2. For affected units using any combination of the two fuels, the quantities of natural gas and LPG, calculated monthly as the sum of each consecutive 12-month period, shall not exceed values that will allow the following equation to hold true:

$$A \times (1,000 \text{ Btu/ft}^3) + B \times (94,000 \text{ Btu/gal}) \leq 72,878 \times 10^6 \text{ Btu/yr}$$

where:

A = Number of cubic feet of natural gas burned during any consecutive 12-month period.

B = Number of gallons of LPG burned during any consecutive 12-month period.

E. The SI affected unit or units combined located in a nonattainment area shall

consume no more than 480,032 gallons of LPG or 45.12×10^6 cubic feet of natural gas per year, calculated monthly as the sum of each consecutive 12-month period.

1. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

2. For affected units using any combination of the two fuels, the quantities of natural gas and LPG, calculated monthly as the sum of each consecutive 12-month period, shall not exceed values that will allow the following equation to hold true:

$$A \times (1,000 \text{ Btu/ft}^3) + B \times (94,000 \text{ Btu/gal}) \leq 45,123 \times 10^6 \text{ Btu/yr}$$

where:

A = Number of cubic feet of natural gas burned during any consecutive 12-month period.

B = Number of gallons of LPG burned during any consecutive 12-month period.

F. For affected units using diesel fuel or biodiesel fuel, the owner shall obtain a certification from the fuel supplier with each shipment of diesel fuel or biodiesel fuel. Each fuel supplier certification shall include the following:

1. The name of the fuel supplier;
2. The date on which the diesel fuel or biodiesel was received;
3. The quantity of diesel fuel or biodiesel delivered in the shipment;
4. A statement that the diesel fuel complies with the American Society for Testing and Materials specifications (ASTM D975-10b);
5. A statement that the biodiesel fuel complies with the American Society for Testing and Materials specifications (ASTM D6751); and
6. The sulfur content of the diesel fuel or biodiesel fuel.

9VAC5-530-180. Emissions limits.

A. Manufacturer certified emissions of each CI affected unit located in either an attainment or nonattainment area shall not exceed the limits specified in Table IV-1.

TABLE IV-1.
Emissions Limits for CI Units Located in Either an Attainment or Nonattainment Area.

Model Year	Emission Limits g/kW-hr (g/bhp-hr)					
--	PM	PM ₁₀	PM _{2.5}	CO	VOC	NO _x

Model Year	Emission Limits g/kW-hr (g/bhp-hr)					
Pre 2011	0.10 (0.075)	0.10 (0.075)	0.10 (0.075)	3.5 (2.6)	0.40 (0.30)	0.67 (0.50)
2011-2014	0.10 (0.075)	0.10 (0.075)	0.10 (0.075)	3.5 (2.6)	0.40 (0.30)	0.67 (0.50)
2015+	0.03 (0.022)	0.03 (0.022)	0.03 (0.022)	3.5 (2.6)	0.19 (0.14)	0.67 (0.50)

B. Emissions from the operation of each CI affected unit located in either an attainment or nonattainment area during testing shall not exceed the limits specified in Table IV-2.

TABLE IV-2.

Emissions Limits During Testing for CI Units Located in Either an Attainment or Nonattainment Area.

Model Year	Emission Limits g/kW-hr (g/bhp-hr)					
	PM	PM ₁₀	PM _{2.5}	CO	VOC	NO _x
Pre 2011	0.13 (0.097)	0.13 (0.097)	0.13 (0.097)	4.4 (3.3)	0.50 (0.37)	0.84 (0.63)
2011-2014	0.13 (0.097)	0.13 (0.097)	0.13 (0.097)	4.4 (3.3)	0.50 (0.37)	0.84 (0.63)
2015+	0.04 (0.030)	0.04 (0.030)	0.04 (0.030)	4.4 (3.3)	0.24 (0.18)	0.84 (0.63)

C. Manufacturer tested emissions limits for each SI affected unit located in either an attainment or nonattainment area shall not exceed the limits specified in Table IV-3.

TABLE IV-3.

Emissions Limits for SI Engines Located in Either an Attainment or Nonattainment Area.

Model Year	Emission Limits g/kW-hr (g/bhp-hr)					
	PM	PM ₁₀	PM _{2.5}	CO	VOC	NO _x
Pre 2011	0.015 (0.011)	0.015 (0.011)	0.015 (0.011)	2.68 (2.0)	0.94 (0.7)	1.34 (1.0)
2011+	0.015 (0.011)	0.015 (0.011)	0.015 (0.011)	2.68 (2.0)	0.94 (0.7)	1.34 (1.0)

D. Emissions from the operation of each SI affected unit located in either an attainment or nonattainment area during testing shall not exceed the limits specified in Table IV-4.

TABLE IV-4.

Emissions Limits During Testing for SI Units Located in Either an Attainment or Nonattainment Area.

Model Year	Emission Limits g/kW-hr (g/bhp-hr)					
	PM	PM ₁₀	PM _{2.5}	CO	VOC	NO _x
Pre-2011	0.019 (0.014)	0.019 (0.014)	0.019 (0.014)	3.35 (2.5)	1.18 (0.88)	1.68 (1.25)
2011+	0.019 (0.014)	0.019 (0.014)	0.019 (0.014)	3.35 (2.5)	1.18 (0.88)	1.68 (1.25)

E. Combined source-wide emissions from the operation of affected units shall not exceed the limits specified in Table IV-5.

TABLE IV-5.

Combined Source-Wide Emissions Limits for Affected Units.

Pollutant	Nonattainment Areas Emissions (tons/year)	Attainment Areas Emissions (tons/year)
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Pollutant	Nonattainment Areas Emissions (tons/year)	Attainment Areas Emissions (tons/year)
PM	2.8	2.8
PM ₁₀	2.8	2.8
PM _{2.5}	2.8	2.8
NO _x	24.4	39.4
CO	99.4	99.4
VOC	17.1	27.6

F. Visible emissions from each affected unit shall not exceed 5.0% opacity as determined by Reference Method 9. This condition applies at all times except during startup, shutdown, and malfunction.

9VAC5-530-190. Testing requirements.

A. Each affected unit shall be constructed and installed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.

B. No affected unit shall be used for the purposes of preventative maintenance purposes between the hours of 7 a.m. to 5 p.m. any day during the ozone season of May 1 through September 30.

C. Initial performance tests shall be conducted for NO_x, CO, PM₁₀, and PM_{2.5} from the affected unit using EPA-approved reference methods to determine compliance with the emission limits contained in 9VAC5-530-180.

1. The tests shall be performed and demonstrate compliance within 60 days after achieving the maximum production rate at which the affected unit or units will be operated but in no event later than 180 days after startup of the permitted source.

2. Test shall be conducted in accordance with EPA methods or an alternative method approved by department.

3. The details of the tests are to be arranged with the regional office and the owner shall submit a test protocol at least 30 days prior to testing.

4. One copy of the test results shall be submitted to the department regional office within 45 days after test completion and shall conform to the test report format in 9VAC5-530-190 D.

5. Testing for multiple identical affected units located at the source shall be conducted as follows:

a. 50% of CI affected units shall be tested.

b. 100% of SI affected units over 500 bhp shall be tested.

6. The owner shall conduct additional performance testing every three years for NO_x, CO, PM₁₀, and PM_{2.5} to demonstrate compliance with the testing emission limits contained in 9VAC5-530-180. The details of the tests shall be arranged with the regional office. Additional performance testing for multiple identical affected units located at the source shall be conducted as follows:

a. 20% of CI affected units shall be tested.

b. 100% of SI affected units over 500 bhp shall be tested.

D. The test report format for performance testing shall include the following:

1. A report cover containing:

a. The plant name;

b. The plant location;

c. Units tested (including unit reference number if assigned);

d. Test dates;

e. The name of the individual conducting the test;

f. The address of the individual conducting the test; and

g. The report date.

2. A certification, including the date certified, which has been signed by:

a. A test team leader or a certified observer;

b. The test reviewer; and

c. A responsible company official.

3. A copy of approved test protocol.

4. A summary including:

a. The reason for testing;

b. Test dates;

c. Identification of the unit tested including the maximum rated capacity for each unit;

d. For each emission unit, a table showing:

(1) The operating rate;

(2) Test methods;

(3) The pollutants tested; and

(4) Test results for each run, including the run average;

e. Process and control equipment data for each run and the average, as required by the test protocol;

f. A statement that the test was conducted in accordance with the test protocol, or identification and discussion of deviations, including the likely impact on results; and

g. Any other important information as determined by the regional office.

5. A description of source operation including:

a. A description of the process;

b. A description of control devices, if necessary;

c. A process and control equipment flow diagram; and

d. A description of sampling port location and a dimensioned cross section. A protocol shall be attached that includes a sketch of the stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions.

6. Test results, including:

a. Detailed test results for each run;

b. Sample calculations; and

c. A description of collected samples, including audits, when applicable.

7. An appendix, including:

- a. Raw production data;
- b. Raw field data;
- c. Laboratory reports;
- d. Chain of custody records for laboratory samples;
- e. Calibration procedures and results;
- f. Project participants and contact information;
- g. Observers' names including their industry and agency affiliation;
- h. Related correspondence; and
- i. Standard procedures.

E. Initial Visible Emission Evaluations (VEE) in accordance with Reference Method 9 shall be conducted on each affected unit.

1. The evaluation shall be performed and demonstrate compliance within 60 days after achieving the maximum production rate at which the affected unit or units will be operated but in no event later than 180 days after startup of the permitted source.

2. Should conditions prevent concurrent opacity observations, the regional office shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days.

3. Rescheduled testing shall be conducted under the same conditions (as possible) as the initial performance tests.

4. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six-minute average.

5. The details of the tests are to be arranged with the regional office and the owner shall submit a test protocol at least 30 days prior to initial testing.

6. One copy of the test results shall be submitted to the department regional office within 45 days after test completion and shall conform to the test report format in 9VAC5-530-190 F.

7. Initial VEE testing for multiple identical affected units located at the source shall be conducted as follows:

- a. 50% of CI affected units shall be tested.
- b. 100% of SI affected units over 500 bhp shall be tested.

8. The owner shall conduct additional VEE testing every three years to demonstrate compliance with the opacity limit contained in 9VAC5-530-180 F. The details of the tests shall be arranged with the regional office. Additional VEE testing for multiple identical affected units located at the source shall be conducted as follows:

- a. 20% of CI affected units shall be tested.
- b. 100% of SI affected units over 500 bhp shall be tested.

F. The test report format for visible emissions evaluations shall include the following.

1. A report cover containing:

- a. The plant name;
- b. The plant location;
- c. Units tested at the source identified by the department that have been issued reference numbers;
- d. Test dates;
- e. The name of the individual conducting the test;
- f. The address of individual conducting test; and
- g. The report date.

2. A certification, including the date certified, which has been signed by:

- a. A test team leader or a certified observer; and
- b. A responsible company official.

3. Copy of approved test protocol.

4. A summary including:

- a. The reason for testing;
- b. Test dates;
- c. Identification of the unit tested including the maximum rated capacity for each unit;
- d. Summarized process and control equipment data for each run and the average, as required by the test protocol;
- e. A statement certifying that the test was conducted in accordance with the test protocol or, if not conducted according to protocol, identification and discussion of deviations, including the likely impact on results; and
- f. Any other important information.

5. A description of source operation including:

- a. A description of the process;
- b. A description of control devices, if necessary;
- c. A process and control equipment flow diagram; and
- d. A description of sampling port location and a dimensioned cross section. A protocol shall be attached that includes a sketch of the stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions.

6. The detailed test results for each run.

7. An appendix including:

- a. Names of project participants and their titles;
- b. Observers' names including their industry and agency affiliation;
- c. Related correspondence; and
- d. Standard procedures.

9VAC5-530-200. Recordkeeping requirements.

A. The owner shall maintain records of emission data and operating parameters as necessary and, if requested, provide them to the department within three business

days to demonstrate compliance with this general permit.

B. The owner shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the affected unit or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the following: (i) date, (ii) time, (iii) duration, (iv) description (emission unit, pollutant affected, cause), (v) corrective action, (vi) preventive measures taken and (vii) name of person generating the record.

C. The content and format of such records shall be arranged with the regional office. These records shall include, but are not limited to:

1. Total combined annual throughput of fuel consumed for the affected unit or units, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

2. Total annual heat input values to show compliance with subsections C, D, and E of 9VAC5-530-170.

3. All fuel supplier certifications.

4. Engine information including make, model, serial number, model year, maximum engine power, and engine displacement for each affected unit.

5. Written manufacturer specifications or written standard operating procedures prepared by the owner for each affected unit. The written standard operating procedures prepared by the owner cannot be less stringent than the written manufacturer specifications.

6. Results of all stack tests, VEE and performance evaluations.

7. Operation and control device monitoring records for the fuel flow meter.

8. Scheduled and unscheduled maintenance, testing and operator training.

D. These records shall be available for inspection by the department and shall be current for the most recent five years.

9VAC5-530-210. Reporting requirements.

A. The owner shall furnish written notification to the regional office of the following:

1. The actual date on which construction of each affected unit commenced within 30 days after such date.

2. If necessary, the actual date on which the integration operational period of each affected unit commenced within 15 days after such date.

3. The anticipated startup date of each affected unit postmarked or submitted electronically not more than 60 days nor less than 30 days prior to such date.

4. The actual startup date of each affected unit within 15 days after such date.

5. The anticipated date of performance tests of each affected unit postmarked or submitted electronically at least 30 days prior to such date.

B. The owner shall furnish notification to the regional office of malfunctions of the affected unit or related air pollution control equipment that may cause excess emissions for more than one hour.

1. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered.

2. The owner shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction.

3. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the regional office.

PART V.

GENERAL PERMIT TERMS AND CONDITIONS FOR ELECTRIC GENERATING UNITS USING HOURS OF OPERATION FOR COMPLIANCE DEMONSTRATION.

9VAC5-530-220. General permit.

A. Any owner whose application is approved by the director shall receive the following general permit and shall comply with the requirements in it and be subject to all requirements of this chapter and the regulations of the board.

B. In compliance with the provisions of the Virginia Air Pollution Control Law and regulations adopted pursuant to it, owners of affected units are authorized to operate under the authority of this general permit, except those where board regulations or policies prohibit such operation.

C. The authorization to operate under this general permit shall be in accordance with the cover letter to this general permit, 9VAC5-530-2300 (General terms and

conditions), 9VAC5-530-240 (Monitoring requirements) 9VAC5-530-250 (Operating limits), 9VAC5-530-260 (Emissions limits), 9VAC5-530-270 (Testing requirements), 9VAC5-530-280 (Recordkeeping requirements), and 9VAC5-530-290 (Reporting requirements).

9VAC5-530-230. General terms and conditions.

A. The owner is authorized to operate an affected unit located within the boundaries of the Commonwealth of Virginia, in accordance with the approved general permit application and conditions of this general permit except where board regulations or policies prohibit such activities.

B. The owner shall comply with the terms and conditions of this general permit prior to commencing any physical or operational change or activity that will result in making the source subject to the new source review program.

9VAC5-530-240. Monitoring requirements.

A. The owner shall install and use a non-resettable hour metering device to monitor the monthly and yearly operating hours for each affected unit, calculated monthly as the sum of each consecutive 12-month period. Each non-resettable hour meter shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations.

B. The hour meter used to continuously measure the hours of operation for each affected unit shall be observed by the owner with a frequency of not less than once per month. The owner shall keep a log of the observations from the hour meter.

9VAC5-530-250. Operating limits.

A. The approved fuels for each CI affected unit are diesel fuel, biodiesel fuel and biodiesel blends. These fuels shall meet the following specifications:

1. Diesel fuel which meets the ASTM D975 specification for S15 diesel fuel oil; maximum sulfur content per shipment, 0.0015%.

2. Biodiesel fuel which meets ASTM specification D6751; maximum sulfur content per shipment, 0.0015%.

B. The approved fuels for each SI affected unit are natural gas and liquid petroleum gas (LPG). These fuels shall meet the following specifications.

1. Natural gas with a minimum heat content of 1,000 Btu/scf HHV as determined by ASTM D1826, D2382, or an equivalent method approved by the department.

2. LPG, including butane and propane, which meets ASTM specification D1835 or an equivalent method approved by the department.

C. Each affected unit shall not operate more than 350 hours per year, calculated monthly as the sum of each consecutive 12-month period.

1. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

2. Total emissions for any consecutive 12-month period, calculated as the sum of all emissions from operations under this condition, shall not exceed the limits stated in subsection C of 9VAC5-530 260 E.

D. For affected units using diesel fuel or biodiesel fuel the owner shall obtain a certification from the fuel supplier with each shipment of diesel fuel or biodiesel fuel. Each fuel supplier certification shall include the following:

1. The name of the fuel supplier.
2. The date on which the diesel fuel or biodiesel was received.
3. The quantity of diesel fuel or biodiesel delivered in the shipment.
4. A statement that the diesel fuel complies with the American Society for Testing and Materials specifications (ASTM D975) for S15 diesel fuel oil.
5. A statement that the biodiesel fuel complies with the American Society for Testing and Materials specifications (ASTM D6751), and
6. The sulfur content of the diesel fuel or biodiesel fuel.

9VAC5-530-260. Emissions limits.

A. Manufacturer certified emissions of each CI affected unit located in either an attainment or nonattainment area shall not exceed the limits specified in Table V-1.

TABLE V-1.
Emissions Limits for CI Units Located in Either an Attainment or Nonattainment Area.

Model Year	Emission Limits g/kW-hr (g/bhp-hr)					
	PM	PM ₁₀	PM _{2.5}	CO	VOC	NO _x
Pre 2011	0.10 (0.075)	0.10 (0.075)	0.10 (0.075)	3.5 (2.6)	0.40 (0.30)	0.67 (0.50)
2011-2014	0.10 (0.075)	0.10 (0.075)	0.10 (0.075)	3.5 (2.6)	0.40 (0.30)	0.67 (0.50)
2015+	0.03 (0.022)	0.03 (0.022)	0.03 (0.022)	3.5 (2.6)	0.19 (0.14)	0.67 (0.50)

B. Emissions from the operation of each CI affected unit located in either an attainment or nonattainment area during testing shall not exceed the limits specified in Table V-2.

TABLE V-2.
Emissions Limits During Testing for CI Units Located in Either an Attainment or Nonattainment Area.

Model Year	Emission Limits g/kW-hr (g/bhp-hr)					
--	PM	PM ₁₀	PM _{2.5}	CO	VOC	NO _x
Pre 2011	0.13 (0.097)	0.13 (0.097)	0.13 (0.097)	4.4 (3.3)	0.50 (0.37)	0.84 (0.63)
2011-2014	0.13 (0.097)	0.13 (0.097)	0.13 (0.097)	4.4 (3.3)	0.50 (0.37)	0.84 (0.63)
2015+	0.04 (0.030)	0.04 (0.030)	0.04 (0.030)	4.4 (3.3)	0.24 (0.18)	0.84 (0.63)

C. Manufacturer certified emissions of each SI affected unit located in either an attainment or nonattainment area shall not exceed the limits specified in Table V-3.

TABLE V-3.
Emissions Limits for SI Engines Located in Either an Attainment or Nonattainment Area.

Model Year	Emission Limits g/kW-hr (g/bhp-hr)					
--	PM	PM ₁₀	PM _{2.5}	CO	VOC	NO _x
Pre 2011	0.015 (0.011)	0.015 (0.011)	0.015 (0.011)	2.68 (2.0)	0.94 (0.7)	1.34 (1.0)
2011+	0.015 (0.011)	0.015 (0.011)	0.015 (0.011)	2.68 (2.0)	0.94 (0.7)	1.34 (1.0)

D. Emissions from the operation of each SI affected unit located in either an attainment or nonattainment area during testing shall not exceed the limits specified in Table V-4.

TABLE V-4.
Emissions Limits During Testing for SI Units Located in Either an Attainment or Nonattainment Area.

Model Year	Emission Limits g/kW-hr (g/bhp-hr)					
--	PM	PM ₁₀	PM _{2.5}	CO	VOC	NO _x
Pre 2011	0.019 (0.014)	0.019 (0.014)	0.019 (0.014)	3.35 (2.5)	1.18 (0.88)	1.68 (1.25)
2011+	0.019 (0.014)	0.019 (0.014)	0.019 (0.014)	3.35 (2.5)	1.18 (0.88)	1.68 (1.25)

E. Combined emissions from the operation of affected units shall not exceed the limits specified in Table V-5.

TABLE V-5.
Combined Source-Wide Emissions Limits for Affected Units.

Pollutant	Nonattainment Areas Emissions (tons/year)	Attainment Areas Emissions (tons/year)
PM	2.8	2.8
PM ₁₀	2.8	2.8
PM _{2.5}	2.8	2.8
NO _x	24.4	39.4
CO	99.4	99.4

Pollutant	Nonattainment Areas Emissions (tons/year)	Attainment Areas Emissions (tons/year)
VOC	17.1	27.6

F. Visible emissions from each affected unit shall not exceed 5.0% opacity as determined by Reference Method 9. This condition applies at all times except during startup, shutdown, and malfunction.

9VAC5-530-270. Testing requirements.

A. Each affected unit shall be constructed and installed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.

B. No affected unit shall be used for the purposes of preventative maintenance purposes between the hours of 7 a.m. to 5 p.m. during the ozone season of May 1 through September 30.

C. Initial performance tests shall be conducted for NO_x, CO, PM₁₀, and PM_{2.5} from the affected unit using EPA approved reference methods to determine compliance with the emission limits contained in 9VAC5-530-260.

1. The tests shall be performed and demonstrate compliance within 60 days after achieving the maximum production rate at which the affected unit will be operated but in no event later than 180 days after startup of the permitted affected unit.

2. Test shall be conducted in accordance with EPA methods or an alternative method approved by the department.

3. The details of the tests are to be arranged with the regional office and the owner shall submit a test protocol at least 30 days prior to testing.

4. One copy of the test results shall be submitted to the department regional office within 45 days after test completion and shall conform to the test report format in 9VAC5-530-270 D.

5. Testing for multiple identical affected units located at the source shall be conducted as follows:

a. 50% of CI affected units shall be tested.

b. 100% of SI affected units over 500 bhp shall be tested.

6. The owner shall conduct additional performance testing every three years for NO_x, CO, PM₁₀, and PM_{2.5} to demonstrate compliance with the testing

emission limits contained in 9VAC5-530-260. The details of the tests shall be arranged with the regional office. Additional performance testing for multiple identical affected units located at the source shall be conducted as follows:

- a. 20% of CI affected units shall be tested.
- b. 100% of SI affected units over 500 bhp shall be tested.

D. The test report format for performance testing shall include the following:

1. A report cover containing:

- a. The plant name;
- b. The plant location;
- c. Units tested (including unit reference number if assigned);
- d. Test dates;
- e. The name of the individual conducting the test;
- f. The address of the individual conducting the test; and
- g. The report date.

2. A certification, including the date certified, which has been signed by:

- a. A test team leader or a certified observer;
- b. The test reviewer; and
- c. A responsible company official.

3. A copy of approved test protocol.

4. A summary including:

- a. The reason for testing;
- b. Test dates;
- c. Identification of the unit tested including the maximum rated capacity for each unit;
- d. For each emission unit, a table showing:

- (1) The operating rate;
- (2) Test methods;
- (3) The pollutants tested; and
- (4) Test results for each run, including the run average;

e. Process and control equipment data for each run and the average, as required by the test protocol;

f. A statement that the test was conducted in accordance with the test protocol, or identification and discussion of deviations, including the likely impact on results; and

g. Any other important information as determined by the regional office.

5. A description of source operation including:

- a. A description of the process;
- b. A description of control devices, if necessary;
- c. A process and control equipment flow diagram; and

d. A description of sampling port location and a dimensioned cross section. A protocol shall be attached that includes a sketch of the stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions.

6. Test results, including:

- a. Detailed test results for each run;
- b. Sample calculations; and
- c. A description of collected samples, including audits, when

applicable.

7. An appendix, including:

- a. Raw production data;

- b. Raw field data;
- c. Laboratory reports;
- d. Chain of custody records for laboratory samples;
- e. Calibration procedures and results;
- f. Project participants and contact information;
- g. Observers' names including their industry and agency affiliation;
- h. Related correspondence; and
- i. Standard procedures.

E. Visible Emission Evaluations (VEE) in accordance with Reference Method 9 shall be conducted on each affected unit.

1. The evaluation shall be performed and demonstrate compliance within 60 days after achieving the maximum production rate at which the affected unit will be operated but in no event later than 180 days after star-up of the permitted affected unit.

2. Should conditions prevent concurrent opacity observations, the regional office shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days.

3. Rescheduled testing shall be conducted under the same conditions (as possible) as the initial performance tests.

4. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six-minute average.

5. The details of the tests are to be arranged with the regional office and the owner shall submit a test protocol at least 30 days prior to testing.

6. One copy of the test results shall be submitted to the regional office within 45 days after test completion and shall conform to the test report format in 9VAC5-530-270 F.

7. Initial VEE testing for multiple identical affected units located at the source shall be conducted as follows:

- a. 50% of CI affected units shall be tested.
- b. 100% of SI affected units over 500 bhp shall be tested.

8. The owner shall conduct additional VEE testing every three years to demonstrate compliance with the opacity limit contained in 9VAC5-530-260 F. The details of the tests shall be arranged with the regional office. Additional VEE testing for multiple identical affected units located at the source shall be conducted as follows:

a. 20% of CI affected units shall be tested.

b. 100% of SI affected units over 500 bhp shall be tested.

F. The test report format for visible emissions evaluations shall include the following.

1. A report cover containing:

a. The plant name;

b. The plant location;

c. Units tested at the source identified by the department that have been issued reference numbers;

d. Test dates;

e. The name of the individual conducting the test;

f. The address of individual conducting test; and

g. The report date.

2. A certification, including the date certified, which has been signed by:

a. A test team leader or a certified observer; and

b. A responsible company official.

3. Copy of approved test protocol.

4. A summary including:

a. The reason for testing;

b. Test dates;

c. Identification of the unit tested including the maximum rated capacity for each unit;

d. Summarized process and control equipment data for each run and the average, as required by the test protocol;

e. A statement certifying that the test was conducted in accordance with the test protocol or, if not conducted according to protocol, identification and discussion of deviations, including the likely impact on results; and

f. Any other important information.

5. A description of source operation including:

a. A description of the process;

b. A description of control devices, if necessary;

c. A process and control equipment flow diagram; and

d. A description of sampling port location and a dimensioned cross section. A protocol shall be attached that includes a sketch of the stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions.

6. The detailed test results for each run.

7. An appendix including:

a. The names of project participants and their titles;

b. The observers' names including their industry and agency affiliation;

c. Related correspondence; and

d. Standard procedures.

9VAC5-530-280. Recordkeeping requirements.

A. The owner shall maintain records of emission data and operating parameters as necessary and if requested, provide them to the department within three business days to demonstrate compliance with this general permit.

B. The owner shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the affected unit or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the date, time, duration, description (emission unit, pollutant

affected, cause), corrective action, preventive measures taken and name of person generating the record.

C. The content and format of such records shall be arranged with the regional office. These records shall include, but are not limited to:

1. Total combined annual hours of operation for the affected unit or units, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

2. All fuel supplier certifications.

3. Engine information including make, model, serial number, model year, maximum engine power, and engine displacement for each affected unit.

4. Written manufacturer specifications or written standard operating procedures prepared by the owner for each affected unit. The written standard operating procedures prepared by the owner cannot be less stringent than the written manufacturer specifications.

5. Results of all stack tests, VEE and performance evaluations.

6. Operation and control device monitoring records for the non-resettable hour meter.

7. Scheduled and unscheduled maintenance, testing and operator training.

D. These records shall be available for inspection by the department and shall be current for the most recent five years.

9VAC5-530-290. Reporting requirements.

A. The owner shall furnish written notification to the regional office of the following:

1. The actual date on which construction of each affected unit commenced within 30 days after such date.

2. If necessary, the actual date on which the integration operational period of each affected unit commenced within 15 days after such date.

3. The anticipated startup date of each affected unit postmarked or submitted electronically not more than 60 days nor less than 30 days prior to such date.

4. The actual startup date of each affected unit within 15 days after such date.

5. The anticipated date of performance tests of each affected unit postmarked or submitted electronically at least 30 days prior to such date.

B. The owner shall furnish notification to the regional office of malfunctions of the affected unit or related air pollution control equipment that may cause excess emissions for more than one hour.

1. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered.

2. The owner shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction.

3. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the regional office.

DOCUMENTS INCORPORATED BY REFERENCE

Standards of the American Society for Testing and Materials (ASTM) listed below are copyrighted materials and may be obtained from ASTM International, P.O. Box C-700, West Conshohocken, PA 19428-2959:

D975-10b, "Standard Specification for Diesel Fuel Oils."

D1826-94 (2010), "Standard Test Method for Caloric (heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter."

D1835-05, "Standard Specification for Liquefied Petroleum (LP) Gases."

D4809, "Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method)."

D6751, "Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels."

D7467, "Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20)."

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