

COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD

9VAC5 CHAPTER 540.
EMERGENCY GENERATOR GENERAL PERMIT

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PART I.
Definitions.

9VAC5-540-10 General

A. For the purpose of applying this chapter in the context of regulations of the board and related uses, the words or terms shall have the meanings given them in 9VAC5-540-20.

B. Unless specifically defined in the Virginia Air Pollution Control Law or in this chapter, terms used shall have the meaning 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.

9VAC5-540-20 Terms defined

"Affected unit" means one or more emergency generation 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 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 D 6751.

"Biodiesel blends" means a blend of biodiesel and petroleum diesel fuel meeting either the requirements of ASTM D975 (blends up to 5 percent) or ASTM D7467 (blends between six percent and 20 percent biodiesel) and designated Bxx where xx represents the biodiesel content of the blend, e.g., B20 for a blend of 20 percent biodiesel and 80 percent 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 degrees Celsius and that complies with the specifications for S15 diesel fuel oil, as defined by the American Society for Testing and Materials in ASTM D975.

"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 of a source including any of the following:

- a. A failure of the electrical grid.
- b. On-site disaster or equipment failure.
- c. Public service emergencies such as flood, fire, natural disaster, or severe weather conditions.
- d. An ISO-declared emergency, where an ISO emergency is any of the following:
 - (1) 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.
 - (2) Capacity deficiency or capacity excess conditions.
 - (3) A fuel shortage requiring departure from normal operating procedures in order to minimize the use of such scarce fuel.
 - (4) Abnormal natural events or man-made threats that would require conservative operations to posture the system in a more reliable state.
 - (5) An abnormal event external to the ISO service territory that may require ISO action.

"Emergency generation unit or 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 emergency generation unit, the terms and conditions in Part IV (9VAC5-540-140 et seq.) of this chapter that

meet the requirements of Part II (9VAC5-540-30 et seq.) and Part III (9VAC5-540-90 et seq.) of this chapter and issued under the provisions of 9VAC5-80-1250.

"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.

"ISO-declared emergency" means a condition that exists when the independent system operator, as defined in § 56-576 of the Code of Virginia, notifies electric utilities that an emergency exists or may occur and that complies with the definition of "emergency" adopted by the board.

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

"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 operational period, unless an extension for startup notification as stated in 9VAC5-540-210 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.

"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.

9VAC5-540-30 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.

9VAC5-540-40 Applicability

A. This chapter applies to each affected unit (i) for which construction or modification is commenced on or after June 28, 2011, (ii) does not meet the permit exemption limits of 9VAC5-80-1105 B2b, 9VAC5-80-1105 C 1 or 9VAC5-1105-D 1 (iii) and that meets the requirements stated below:

1. For CI units, located in an attainment area with an aggregate rated electrical power output identified in Table I below:

TABLE I.

CH-540:5

Aggregate Rated Electrical Power Output For CI Units In An Attainment Area.

Affected Unit Size kW (bhp)	With a Displacement of: (liters/cylinder)	With a Model Year of:
$x \leq 6,906$ (9,261)	Less than 10	2010
$x \leq 8,472$ (11,361)	Less than 10	2011+
$x \leq 8,146$ (10,924)	$10.0 \leq x < 15.0$	2010+

2. For CI units, located in a nonattainment area with an aggregate rated electrical power output identified in Table II:

TABLE II.

Aggregate Rated Electrical Power Output For CI Units In A Nonattainment Area.

Affected Unit Size kW (bhp)	With a Displacement of: (liters/cylinder)	With a Model Year of:
$x \leq 3,850$ (5,163)	Less than 10	2010
$x \leq 4,722$ (6,332)	Less than 10	2011+
$x \leq 4,540$ (6,088)	$10.0 \leq x < 15.0$	2010+

3. For SI units located in an attainment area with an aggregate rated electrical power output less than or equal to 23,535 kW (31,560 bhp).

4. For SI units located in a nonattainment area with an aggregate rated electrical power output less than or equal to 13,115 kW (17,587 bhp).

B. This chapter applies throughout the Commonwealth of Virginia.

C. The following affected unit or 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 operates during non-emergency conditions for purposes other than required maintenance and operability testing (including but not limited to peak shaving, demand response, or as part of any other interruptible power supply arrangement with a power provider, other market participant, or system operator).

9VAC5-540-50 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.

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 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. The owner 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 a remotely operated, the maintenance and training records may be kept offsite but shall be made available to the department within 3 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

9VAC5-540-60 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.

9VAC5-540-70 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.

9VAC5-540-80 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 general 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 general 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 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.

9VAC5-540-90 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 9VAC5-540-40 and the operating limitations in 9VAC5-540-170.

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

9VAC5-540-100 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.

9VAC5-540-110 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 regional office.

2. A document certification signed by a responsible official.

9VAC5-540-120 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 9VAC5-540-40.

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.

9VAC5-540-130 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.

9VAC5-540-140 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 permit, 9VAC5-540-150 (General terms and conditions), 9VAC5-540-160 (Monitoring requirements) 9VAC5-540-170 (Operating limits), 9VAC5-540-180 (Emissions limits), 9VAC5-540-190 (Testing requirements), 9VAC5-540-200 (Recordkeeping requirements), 9VAC5-540-210 (Reporting requirements) and 9VAC5-540-220 (Enforcement).

9VAC5-540-150 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 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.

9VAC5-540-160 Monitoring requirements

A. The owner shall install and use a non-resettable hour metering device to monitor the operating hours for each affected unit calculated monthly as the sum of each consecutive 12-month period.

B. Each monitoring device 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 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.

9VAC5-540-170. Operating limits.

A. Each affected unit located in an attainment area shall not operate more than 450 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 F of 9VAC5-540-180 F.

B. Each affected unit located in a nonattainment area shall not operate more than 500 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 9VAC5-540-180 F.

C. 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 fuel oil; maximum sulfur content per shipment, 0.0015 percent.

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

D. 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.

E. 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 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.

9VAC5-540-180 Emissions limits

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

TABLE V.

Emissions Limits for CI Units Located in Attainment Areas.

Generator Size	Displacement liters/cylinder	Model Year	Emission Limits g/kW-hr (g/bhp-hr)					
			PM	PM10	PM2.5	CO	VO C	NO X
$x < 8 \text{ kW}$ ($x < 11 \text{ bhp}$)	Less than 10	2010+	0.4 (0.30)	0.4 (0.30)	0.4 (0.30)	8.0 (6.0)	7.5* (5.6*)	
$8 \text{ kW} \leq x < 19 \text{ kW}$ ($11 \text{ bhp} \leq x < 25 \text{ bhp}$)	Less than 10	2010+	0.4 (0.30)	0.4 (0.30)	0.4 (0.30)	6.6 (4.9)	7.5* (5.6*)	

19 kW ≤ x < 37 kW	Less than 10	2010+	0.3	0.3	0.3	5.5	7.5*	
(25 bhp ≤ x < 50 bhp)			(0.22)	(0.22)	(0.22)	(4.1)	(5.6*)	
37 kW ≤ x < 75 kW	Less than 10	2010+	0.4	0.4	0.4	5.0	4.7*	
(50 bhp ≤ x < 100 bhp)			(0.30)	(0.30)	(0.30)	(3.7)	(3.5*)	
75 kW ≤ x < 130 kW	Less than 10	2010+	0.3	0.3	0.3	5.0	4.0*	
(100 bhp ≤ x < 174 bhp)			(0.22)	(0.22)	(0.22)	(3.7)	(3.0*)	
130 kW ≤ x < 560 kW	Less than 10	2010+	0.2	0.2	0.2	3.5	4.0*	
(174 bhp ≤ x < 751 bhp)			(0.15)	(0.15)	(0.15)	(2.6)	(3.0*)	
560 kW ≤ x < 2,237 kW	Less than 10	2010+	0.2	0.2	0.2	3.5	6.4*	
(751 bhp ≤ x < 3,000 bhp)			(0.15)	(0.15)	(0.15)	(2.6)	(4.8*)	
x ≥ 2,237 kW	Less than 10	2010	0.54	0.54	0.54	11.4	1.3	9.2
(x ≥ 3,000 bhp)			(0.40)	(0.40)	(0.40)	(8.5)	(1.0)	(6.9)
		2011+	0.2	0.2	0.2	3.5	6.4*	
			(0.15)	(0.15)	(0.15)	(2.6)	(4.8*)	
x ≥ 2,237 kW	10.0 ≤ x < 15.0	2010+	0.27	0.27	0.27	5.0	7.8*	
(x ≥ 3,000 bhp)			(0.20)	(0.20)	(0.20)	(3.7)	(5.8*)	

*Combined limit for VOC and NO_x

B. Emissions from the peak of each CI affected unit located in an attainment area during testing shall not exceed the limits specified in Table VI.

TABLE VI.

Emissions Limits During Testing for CI Units Located in Attainment Areas.

Generator Size (kW)	Displacement liters/cylinder	Model Year	Emission Limits (g/kW-hr (g/bhp-hr))					
			PM	PM10	PM2.5	CO	VO C	NO X
x < 8 kW (x < 11 bhp)	Less than 10	2010+	0.5	0.5	0.5	10.0	9.4*	
			(0.4)	(0.4)	(0.4)	(7.5)	(7.0*)	
8 kW ≤ x < 19 kW (11 bhp ≤ x < 25 bhp)	Less than 10	2010+	0.5	0.5	0.5	8.3	9.4*	
			(0.4)	(0.4)	(0.4)	(6.2)	(7.0*)	
19 kW ≤ x < 37 kW (25 bhp ≤ x < 50 bhp)	Less than 10	2010+	0.38	0.38	0.38	6.9	9.4*	
			(0.28)	(0.28)	(0.28)	(5.1)	(7.0*)	
37 kW ≤ x < 75 kW (50 bhp ≤ x < 100 bhp)	Less than 10	2010+	0.5	0.5	0.5	6.3	5.9*	
			(0.4)	(0.4)	(0.4)	(4.7)	(4.4*)	
75 kW ≤ x < 130 kW (100 bhp ≤ x < 174 bhp)	Less than 10	2010+	0.38	0.38	0.38	6.3	5.0*	
			(0.28)	(0.28)	(0.28)	(4.7)	(3.7*)	
130 kW ≤ x < 560 kW (174 bhp ≤ x < 751 bhp)	Less than 10	2010+	0.25	0.25	0.25	4.4	5.0*	
			(0.19)	(0.19)	(0.19)	(3.3)	(3.7*)	
560 kW ≤ x < 2,237 kW (751 bhp ≤ x < 3,000 bhp)	Less than 10	2010+	0.25	0.25	0.25	4.4	8.0*	
			(0.19)	(0.19)	(0.19)	(3.3)	(6.0*)	
x ≥ 2,237 kW (x ≥ 3,000 bhp)	Less than 10	2010	0.68	0.68	0.68	14.3	1.6	11.5
			(0.51)	(0.51)	(0.51)	(10.7)	(1.2)	(8.6)

x ≥ 2,237 kW (x ≥ 3,000 bhp)	10.0 ≤ x < 15.0	2011+	0.25 (0.19)	0.25 (0.19)	0.25 (0.19)	4.4 (3.3)	8.0* (6.0*)
		2010+	0.34 (0.25)	0.34 (0.25)	0.34 (0.25)	6.3 (4.7)	9.8* (7.3*)

C. Manufacturer certified emissions of each CI affected unit located in a nonattainment attainment area shall not exceed the limits specified in Table VII.

TABLE VII.

Emissions Limits for CI Units Located in Nonattainment Areas.

Generator Size	Displacement liters/cylinder	Model Year	Emission Limits g/kW-hr (g/bhp-hr)					NO _x
			PM	PM ₁₀	PM _{2.5}	CO	VOC	
x < 8 kW (x < 11 bhp)	Less than 10	2010+	0.4 (0.30)	0.4 (0.30)	0.4 (0.30)	8.0 (6.0)	6.4* (4.8*)	
8 kW ≤ x < 19 kW (11 bhp ≤ x < 25 bhp)	Less than 10	2010+	0.4 (0.30)	0.4 (0.30)	0.4 (0.30)	6.6 (4.9)	6.4* (4.8*)	
19 kW ≤ x < 37 kW (25 bhp ≤ x < 50 bhp)	Less than 10	2010+	0.3 (0.22)	0.3 (0.22)	0.3 (0.22)	5.5 (4.1)	6.4* (4.8*)	
37 kW ≤ x < 75 kW (50 bhp ≤ x < 100 bhp)	Less than 10	2010+	0.4 (0.30)	0.4 (0.30)	0.4 (0.30)	5.0 (3.7)	4.7* (3.5*)	
75 kW ≤ x < 130 kW (100 bhp ≤ x < 174 bhp)	Less than 10	2010+	0.3 (0.22)	0.3 (0.22)	0.3 (0.22)	5.0 (3.7)	4.0* (3.0*)	
130 kW ≤ x <	Less than 10	2010+	0.2	0.2	0.2	3.5	4.0*	

560 kW (174 bhp ≤ x < 751 bhp)			(0.15)	(0.15)	(0.15)	(2.6)	(3.0*)	
560 kW ≤ x < 2,237 kW (751 bhp ≤ x < 3,000 bhp)	Less than 10	2010+	0.2	0.2	0.2	3.5	6.4*	
			(0.15)	(0.15)	(0.15)	(2.6)	(4.8*)	
x ≥ 2,237 kW (x ≥ 3,000 bhp)	Less than 10	2010	0.54	0.54	0.54	11.4	1.3	6.4
			(0.40)	(0.40)	(0.40)	(8.5)	(1.0)	(4.8)
		2011+	0.2	0.2	0.2	3.5	6.4*	
			(0.15)	(0.15)	(0.15)	(2.6)	(4.8*)	
x ≥ 2,237 kW (x ≥ 3,000 bhp)	10.0 ≤ x < 15.0	2010+	0.27	0.27	0.27	5.0	6.4*	
			(0.20)	(0.20)	(0.20)	(3.7)	(4.8*)	

*Combined limit for VOC and NO_x

D. Emissions from the operation of each CI affected unit located in a nonattainment area during testing shall not exceed the limits specified in Table VIII.

TABLE VIII.

Emissions Limits During Testing for CI Units Located in Nonattainment Areas.

Generator Size (kW)	Displacement liters/cylinder	Model Year	Emission Limits g/kW-hr (g/bhp-hr)					
			PM	PM ₁₀	PM _{2.5}	CO	VOC	NO _x
x < 8 kW (x < 11 bhp)	Less than 10	2010+	0.5	0.5	0.5	10.0	8.0*	
			(0.4)	(0.4)	(0.4)	(7.5)	(6.0*)	
8 kW ≤ x < 19 kW (11 bhp ≤ x < 25 bhp)	Less than 10	2010+	0.5	0.5	0.5	8.3	8.0*	
			(0.4)	(0.4)	(0.4)	(6.2)	(6.0*)	
19 kW ≤ x < 37 kW (25 bhp ≤ x < 50 bhp)	Less than 10	2010+	0.38	0.38	0.38	6.9	8.0*	
			(0.28)	(0.28)	(0.28)	(5.1)	(6.0*)	

37 kW ≤ x < 75 kW (50 bhp ≤ x < 100 bhp)	Less than 10	2010+	0.5	0.5	0.5	6.3	5.9*	
			(0.4)	(0.4)	(0.4)	(4.7)	(4.4*)	
75 kW ≤ x < 130 kW (100 bhp ≤ x < 174 bhp)	Less than 10	2010+	0.38	0.38	0.38	6.3	5.0*	
			(0.28)	(0.28)	(0.28)	(4.7)	(3.7*)	
130 kW ≤ x < 560 kW (174 bhp ≤ x < 751 bhp)	Less than 10	2010+	0.25	0.25	0.25	4.4	5.0*	
			(0.19)	(0.19)	(0.19)	(3.3)	(3.7*)	
560 kW ≤ x < 2,237 kW (751 bhp ≤ x < 3,000 bhp)	Less than 10	2010+	0.25	0.25	0.25	4.4	8.0*	
			(0.19)	(0.19)	(0.19)	(3.3)	(6.0*)	
x ≥ 2,237 kW (x ≥ 3,000 bhp)	Less than 10	2010	0.68	0.68	0.68	14.3	1.6	8.0
			(0.51)	(0.51)	(0.51)	(10.7)	(1.2)	(6.0)
		2011+	0.25	0.25	0.25	4.4	8.0*	
			(0.19)	(0.19)	(0.19)	(3.3)	(6.0*)	
x ≥ 2,237 kW (x ≥ 3,000 bhp)	10.0 ≤ x < 15.0	2010+	0.34	0.34	0.34	6.3	8.0*	
			(0.25)	(0.25)	(0.25)	(4.7)	(6.0*)	

*Combined limit for VOC and NO_x

E. Emissions from the operation of each SI affected unit shall not exceed the limits specified in Table IX.

TABLE IX.

Emissions Limits for SI Units.

Model Year	Emissions Limits g/kW-hr (g/bhp-hr)					
	PM	PM ₁₀	PM _{2.5}	CO	VOC	NO _x
2010+	0.015 (0.011)	0.015 (0.011)	0.015 (0.011)	5.3 (4.0)	1.3 (1.0)	2.7 (2.0)

	Instead of meeting the limits stated above, the owner may meet the alternative standards below: (ppmvd at 15 percent O ₂)		
	540	86	160

F. Combined source-wide emissions from the operation of affected units shall not exceed the limits specified in Table X.

TABLE X.

Combined Source-Wide Emissions Limits for Affected Units.

Pollutant	Nonattainment Areas Emissions (tons/year)	Attainment Areas Emissions (tons/year)
PM	1.4	2.3
PM ₁₀	1.4	2.3
PM _{2.5}	1.4	2.3
NO _x	24.4	39.4
SO ₂	0.5	0.5
CO	48.0	77.4
VOC	11.8	19.0

G. Visible emissions from each affected unit located in an attainment area shall not exceed 10 percent opacity except during one 6-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by Reference Method 9. This condition applies at all times except during startup, shutdown, and malfunction.

H. Visible emissions from each affected unit located in a nonattainment area shall not exceed 5.0 percent opacity except during one 6-minute period in any one hour in which visible emissions shall not exceed 10 percent opacity as determined by Reference Method 9. This condition applies at all times except during startup, shutdown, and malfunction.

9VAC5-540-190 Testing requirements

Each affected unit shall be constructed, or modified and installed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods.

1. Sampling ports shall be provided when requested at the appropriate locations.

2. Safe sampling platforms and access shall be provided.

9VAC5-540-200 Recordkeeping requirements

A. The owner shall maintain on site records of emission data and operating parameters as necessary 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 source 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 (affected 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 annual hours of operation for each affected unit, 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. Records when each affected unit is used for an ISO-declared emergency, including, but not limited to, the date, cause of the emergency, the ISO-declared emergency notification, and the hours of operation.

3. Records when each affected unit is used for an emergency that is not an ISO-declared emergency, including, but not limited to, the date, cause of the emergency, and the hours of operation.

4. All fuel supplier certifications.

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

6. 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.

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.

9VAC5-540-210 Reporting requirements

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

1. The actual date on which construction or modification 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 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.

9VAC5-540-220 Enforcement

A Violation of this general 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.

B. 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 permit.

C. The owner shall comply with all conditions of this general permit. Any noncompliance with this 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 permit.

D. 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.

E. The authorization to operate under this permit may be suspended or revoked for cause as specified in 9VAC5-540-80. 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.

F. This general permit does not convey any property rights of any sort, or any exclusive privilege.

G. 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 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.

DOCUMENTS INCORPORATED BY REFERENCE

American Society for Testing and Materials

- (1) D975-10b, "Standard Specification for Diesel Fuel Oils."
- (2) D1826-94 (2010), "Standard Test Method for Caloric (heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter."
- (3) D1835-05, "Standard Specification for Liquefied Petroleum (LP) Gases."
- (4) D4809, "Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method)."
- (5) D6751, "Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels."
- (6) D7467, "Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20)."

HISTORICAL NOTES:

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