

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR DIVISION**

INTRA AGENCY MEMORANDUM

TO: File

FROM: Mary E. Major
Environmental Program Manager

SUBJECT: Meeting Minutes - Technical Advisory Committee Concerning Emergency
Generation General Permit (Rev. Eg)

DATE: July 19, 2010

INTRODUCTION

A meeting of the technical advisory committee concerning peak shaving generator general permit was held in the 2nd Floor Conference Room C, Department of Environmental Quality, 629 E. Main Street, Richmond, Virginia. A record of meeting attendees is attached.

Start: 1:45 a.m.
End: 3:30 p.m.

Subcommittee Members Present:

Jerome A. Brooks
Terry Darton
Trisha R. Eyler
Mary E. Major
Rebekah Remick
William Scarpinato
Susan Stewart
Joe Suchecki (via conference call)

Subcommittee Members Absent:

Walid M. Daniel, PE, CEM
Michael W. Kendall, R.S.

Public Attendees:

None

SUMMARY OF DISCUSSION

Ms. Major reviewed the regulation adoption schedule, group agreed to reconvene on August 24, 2010.

Group reviewed the draft regulation by section. Consensus was achieved for the following:

Definitions:

Diesel fuel will include meet specifications for ultra low-sulfur fuel.

"Routine testing and maintenance" was deleted.

The term "emergency generation source" will be defined according to the language used in the enabling legislation; the term affected unit will reference the term "emergency generation source".

Will include the following terms:

"Modified facility

"New facility".

Applicability:

Group had concurrence regarding:

1. The organization of the section; CI engine standards for both new and modified units in sections A and B; SI engine standards in section C and D.

2. Values for the horsepower (hp) to kW conversion figures.

3. The use of the terms new facility and modified facility to reference the source applying for the gp.

General:

The requirement for "spare parts" will pertain only to pollution control equipment.

Monitoring requirements:

References to fugitive dust and odor were determined unnecessary

Operating limits:

Clarity was provided for the titles of tables containing the emissions limits for various sized generators.

Recordkeeping requirements:

Sources will have no more than three business days to submit any records of emission or operating data once requested by DEQ.

NEXT MEETING DATE

The next meeting is scheduled for Tuesday, August 24, 2010, 2nd Floor Conference Room A, Department of Environmental Quality, 629 E. Main Street, Richmond, Virginia.

DOCUMENT DISTRIBUTION

The following documents were distributed to the committee prior to or at the meeting:

1. Copy of Meeting attendees
3. Emergency Generation General Permit Draft # 5

TEMPLATES\GEN-PERMIT\GP08
REG\GEN-DEV\Dg-GP08-5

Attachments

**COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD**

**TECHNICAL ADVISORY COMMITTEE MEETING
ATTENDANCE RECORD**

July 19, 2010

SUBJECT: Peak Shaving/Emergency Generator GP (Revision DG/EG)

LOCATION: 11th Floor Conference Room, Department of Environmental Quality, 629 East Main Street, Richmond, Virginia

PRINTED NAME	SIGNATURE
Rebekah Remick	Rebekah Remick
Terry Dorton	Terry Dorton
Bill Scarpinato	William Scarpinato
Susan Stewart	Susan Stewart
Joseph Suchecki	- via conference call
MARY E. MAJOS	M. E. Majos DEQ -

EMERGENCY GENERAL PERMIT (9VAC5-CHAPTER 540)

9VAC5 CHAPTER 540.
EMERGENCY GENERAL PERMIT

Part I Definitions.

- 9VAC5-540-10. General.
- 9VAC5-540-20. Terms defined.

Part II General Provisions.

- 9VAC5-540-30. Purpose and basis.
- 9VAC5-540-40. Applicability.
- 9VAC5-540-50. General.
- 9VAC5-540-60. Circumvention, Suspension or Revocation.
- 9VAC5-540-70. Compliance.
- 9VAC5-540-80. Enforcement of a general permit.

Part III General Permit Administrative Procedures.

- 9VAC5-540-90. Requirements for granting an authorization to operate under the general permit.
- 9VAC5-540-100. Applications for coverage under the general permit.
- 9VAC5-540-110. Required information for initial applications.
- 9VAC5-540-120. Granting an authorization to operate under the general permit.
- 9VAC5-540-130. Transfer of authorization to operate under the general permit.

Part IV General Permit Terms and Conditions for Emergency Electric
Generating Units

- 9VAC5-540-140. General permit.
- 9VAC5-540-150. General terms and conditions.
- 9VAC5-540-160. Monitoring requirements.
- 9VAC5-540-170. Operating schedule.
- 9VAC5-540-180. Emission limits.
- 9VAC5-540-190. Testing requirements.
- 9VAC5-540-200. Recordkeeping requirements.
- 9VAC5-540-210. Reporting requirements.

PART I.
Definitions.

EMERGENCY GENERAL PERMIT (9VAC5-CHAPTER 540)

9VAC5-540-10. General.

A. Unless specifically defined in the Virginia Air Pollution Control Law or in this chapter, terms used shall have the meaning given them by 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 an electric generating unit subject to the provisions of this Chapter.

"Aggregate rated electrical power output" means the sum or total rated electrical power output for all engines involved in the initial application. It does not include all existing electric generating units at the facility.

"Bio-diesel 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%) 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 engine" or "CI" means relating to 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.

"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 diesel fuel oil numbers 1 or 2, 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).

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"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 facility including:

- 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:
 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" means

"Greenfield source" means

"Identical electric generating 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, 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 electric generating unit is started on site and ending when the electric

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generating unit is fully integrated with the facility's electrical system. In no case shall this period exceed 30 days.

"Kilowatt (kW) to horsepower (hp)" means the conversion of 1 kW = 1.341 hp

"Load curtailment" means similar to demand response, but referring specifically to 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.

"Nonattainment area" means as defined in 9 VAC 5-20-204.

"Operation" means burning 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.

"Routine testing and maintenance" means

"Spark ignition engine (SI)" 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 electric generating unit completes the integration period, unless an extension is approved by the DEQ. An extension request must be submitted 7 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.

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GENERAL PROVISIONS.

9VAC5-540-30. Purpose and basis.

This general permit is being issued under the authority of 9VAC5-80-1250.

9VAC5-540-40. Applicability.

A. The affected units to which this chapter applies is each emergency generation unit for which construction, installation, or operation is commenced after the date of this general permit and that meets the requirements stated below:

1. For new, greenfield compression ignition engines, located in an attainment area and have an aggregate rated electrical power output identified in Table 1 below:

TABLE 1.

AGGREGATE RATED ELECTRICAL POWER OUTPUT FOR NEW CI UNITS IN AN ATTAINMENT AREA

Greater than or equal to: Generator Size kW (hp)	And less than: Generator Size kW (hp)	With a Displacement of: (liters/cylinder)	With an Engine Year of:
7,888 (10,578)	8,634 (11,578)	Less than 10	2010
9,676 (12,976)	10,590 (14,201)	Less than 10	2011+
9,304 (12,477)	10,182 (13,654)	10.0 ≤ x < 15.0	2010+

2. For new, greenfield compression ignition engines, located in a nonattainment attainment area and have an aggregate rated electrical power output identified in Table 2 below:

TABLE 2

AGGREGATE RATED ELECTRICAL POWER OUTPUT FOR NEW CI UNITS IN A NONATTAINMENT AREA

Greater than or equal to: Generator Size kW (hp)	And less than: Generator Size kW (hp)	With a Displacement of: (liters/cylinder)	With an Engine Year of:
450 (603)	4,812 (6,453)	Less than 10	2010
552 (740)	5,902 (7,915)	Less than 10	2011+
531 (712)	5,675 (7,610)	10.0 ≤ x < 15.0	2010+

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3. For modified compression ignition engines, located in an attainment area and have an aggregate rated electrical power output identified in Table 3 below:

TABLE 3.

AGGREGATE RATED ELECTRICAL POWER OUTPUT FOR MODIFIED CI UNITS IN AN ATTAINMENT AREA

Greater than or equal to: Generator Size kW (hp)	And less than: Generator Size kW (hp)	With a Displacement of: (liters/cylinder)	With an Engine Year of:
1,970 (2,642)	8,634 (11,578)	Less than 10	2010
2,420 (3,245)	10,590 (14,201)	Less than 10	2011+
2,323 (3,115)	10,182 (13,654)	10.0 ≤ x < 15.0	2010+

4. For modified compression ignition engines, located in a nonattainment area and have an aggregate rated electrical power output identified in Table 4 below:

TABLE 4.

AGGREGATE RATED ELECTRICAL POWER OUTPUT FOR MODIFIED CI UNITS IN A NONATTAINMENT AREA

Greater than or equal to: Generator Size kW (hp)	And less than: Generator Size kW (hp)	With a Displacement of: (liters/cylinder)	With an Engine Year of:
113 (152)	4,812 (6,453)	Less than 10	2010
138 (185)	5,902 (7,915)	Less than 10	2011+
133 (178)	5,675 (7,610)	10.0 ≤ x < 15.0	2010+

5. For new, greenfield spark ignition engines located in an attainment area and have an aggregate rated electrical power output greater than or equal to 26, 870 kW (36,033 hp) and less than 29,420 kW (39,452 hp).

6. For new, greenfield spark ignition engines located in a nonattainment area and have an aggregate rated electrical power output greater than or equal to 1,534 kW (2,057 hp) and less than 16,399 kW (21,991 hp).

7. For modified spark ignition engines located in an attainment area and have an aggregate rated electrical power output greater than or equal to 6,710 kW (8,998 hp) and less than 29,420 kW (39,452 hp).

8. For modified spark ignition engines located in a nonattainment

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area and have an aggregate rated electrical power output greater than or equal to 383 kW (514 hp) and less than 16,399 kW (21,991 hp).

B. This chapter applies throughout the Commonwealth of Virginia.

C. Any electric generating unit that is a major source or is located at a major source, as defined in Articles 1, 7, 8, or 9 of Part II of 9 VAC 5-80 (Permits for Stationary Sources) shall not be eligible for this general permit.

D. Any emergency generation source that operates voluntarily for the purpose of peak-shaving, demand response, or as part of any other interruptible power supply arrangement with a power provider, other market participant, or system operator is not eligible for this general permit

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 permittee shall, upon request of the DEQ, reduce the level of operation or shut down a 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, install, or operate each affected unit shall become invalid, unless an extension is granted by the DEQ, if:

1. A program of continuous construction is not commenced within the latest of the following:

a. Eighteen months from the date that this general permit is issued to the permittee;

b. Nine months from the date that the last permit or other authorization was issued from any other governmental entity;

c. Nine months from the date of the last resolution of any litigation concerning any such permits or authorization; or

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

E. At all times, including periods of start-up, shutdown, and malfunction, the permittee 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 permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to process equipment which affect such emissions:

1. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

2. Maintain an inventory of spare parts.

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

H. 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.

1. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

2. Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

I. The permittee shall keep a copy of this permit on the premises of the facility to which it applies.

9VAC5-540-60. Circumvention, Suspension or Revocation.

A. No permittee 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.

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

1. Knowingly makes material misstatements in the 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 a permitted emissions 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, in the State Implementation Plan in effect at the time an application for this 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 facility 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 permittee 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 permit.
2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring equipment), practices, or operations regulated or required under this permit.

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4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this 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. A permittee 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 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.

D. The permittee shall comply with all conditions of this 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.

E. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

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

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

I. The permittee 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 permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the department copies of records required to be kept by this permit and, for information claimed to be confidential, the permittee shall furnish such records to the department along with a claim of confidentiality meeting the requirements of 9VAC5-170-60 et.seq.

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 9VAC5-530-40 and the operating limitations in 9VAC5-540-170.

B. The general permit will be issued in accordance with § 2.2-4006 A 9 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 9VAC5-30-230.

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

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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 electric generating unit as determined by the regional office

2. A document certification with all applicable requirements completed 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 a unit covered by the general permit is not subject to the public participation procedures.

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 electric generating unit to another or from one piece of equipment to another.

B. In the case of a transfer of ownership of an electric generating 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 electric generating 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 EMERGENCY ELECTRIC
GENERATING UNITS.

9VAC5-540-140. General permit.

A. Any owner whose application is approved by the director shall receive the following permit and shall comply with the requirements in it and be subject to

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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 electric generating units are authorized to operate under the authority of this permit, except those where board regulations or policies prohibit such operation.

C. The authorization to operate under this 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 and (Reporting requirements), 9VAC5-540-220.

9VAC5-540-150. General terms and conditions.

A. The permittee 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 permit except where board regulations or policies prohibit such activities.

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

9VAC5-540-160. Monitoring requirements

A. The permittee shall install and use a non-resettable hour metering device to monitor the monthly and yearly operating hours for each affected emergency generator source, calculated monthly as the sum of each consecutive 12-month period. Each metering 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.

B. Each affected unit shall comply with visible emissions and fugitive dust/emissions standards of Article 1 of Part II of 9VAC5-50 (New and Modified Stationary Sources). No owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Is this section necessary?

D. Each affected unit shall comply with the odor standards Article 2 of Part II of 9VAC5-50 (New and Modified Stationary Sources). Under no circumstances shall the affected unit operate in such a manner as to cause an odor objectionable to individuals of ordinary sensibility. Is this section necessary?

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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 twelve 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 **(listed as condition 9 but I think it should be 10).**

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 twelve month period, calculated as the sum of all emissions from operations under this condition, shall not exceed the limits stated in 9VAC5-540-170.

C. The approved fuels for each compression ignition 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 numbers 1 or 2 fuel oil; maximum sulfur content per shipment, 0.0015%.

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

D. The approved fuels for each spark ignition affected unit are natural gas and liquid propane gas. 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 a DEQ-approved equivalent method.

2. Liquid propane gas, including butane and propane, which meets

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ASTM specification D1835.

E. For units using diesel fuel or bio-diesel fuel the permittee shall obtain a certification from the fuel supplier with each shipment of diesel fuel or bio-diesel fuel. Each fuel supplier certification shall include the following:

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

9VAC5-540-180. Emissions limits.

A. Emissions from the operation of each compression ignition affected unit located in an attainment area shall not exceed the limits specified in Table 5 below.

TABLE 5

Emissions Limits for CI Engines Located in Attainment Areas

Generator Size	Displacement (liters/cylinder)	Engine Year	Emission Limits g/kW-hr (g/hp-hr)						
			PM	PM-10	PM 2.5	CO	VO C	NO _x	
x < 8 kW (x < 11 hp)	Less than 10	2010+	0.4	0.4	0.4	8.0		7.5*	
			(0.30)	(0.30)	(0.30)	(6.0)		(5.6*)	
8 kW ≤ x < 19 kW (11 hp ≤ x < 25 hp)	Less than 10	2010+	0.4	0.4	0.4	6.6		7.5*	
			(0.30)	(0.30)	(0.30)	(4.9)		(5.6*)	

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

*Combined limit for VOC and NO_x

B The permittee shall not exceed the limits specified in Table 6 below when testing.

TABLE 6

Emissions Limits During Testing for CI Engines Located in Attainment Areas

Generator Size (kW)	Displacement (liters/cylinder)	Engine Year	Emission Limits (g/kW-hr)					
			PM	PM-10	PM 2.5	CO	VOC	NO _x
x < 8 kW (x < 11 hp)	Less than 10	2010+	0.5 (0.4)	0.5 (0.4)	0.5 (0.4)	10.0 (7.5)	9.4* (7.0*)	

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8 kW ≤ x < 19 kW (11 hp ≤ x < 25 hp)	Less than 10	2010+	0.5 (0.4)	0.5 (0.4)	0.5 (0.4)	8.3 (6.2)	9.4* (7.0*)	
19 kW ≤ x < 37 kW (25 hp ≤ x < 50 hp)	Less than 10	2010+	0.38 (0.28)	0.38 (0.28)	0.38 (0.28)	6.9 (5.1)	9.4* (7.0*)	
37 kW ≤ x < 75 kW (50 hp ≤ x < 100 hp)	Less than 10	2010+	0.5 (0.4)	0.5 (0.4)	0.5 (0.4)	6.3 (4.7)	5.9* (4.4*)	
75 kW ≤ x < 130 kW (100 hp ≤ x < 174 hp)	Less than 10	2010+	0.38 (0.28)	0.38 (0.28)	0.38 (0.28)	6.3 (4.7)	5.0* (3.7*)	
130 kW ≤ x < 560 kW (174 hp ≤ x < 751 hp)	Less than 10	2010+	0.25 (0.19)	0.25 (0.19)	0.25 (0.19)	4.4 (3.3)	5.0* (3.7*)	
560 kW ≤ x < 2,237 kW (751 hp ≤ x < 3,000 hp)	Less than 10	2010+	0.25 (0.19)	0.25 (0.19)	0.25 (0.19)	4.4 (3.3)	8.0* (6.0*)	
x ≥ 2,237 kW (x ≥ 3,000 hp)	Less than 10	2010	0.68 (0.51)	0.68 (0.51)	0.68 (0.51)	14.3 (10.7)	1.6 (1.2)	11.5 (8.6)
		2011+	0.25 (0.19)	0.25 (0.19)	0.25 (0.19)	4.4 (3.3)	8.0* (6.0*)	
x ≥ 2,237 kW (x ≥ 3,000 hp)	10.0 ≤ x < 15.0	2010+	0.34 (0.25)	0.34 (0.25)	0.34 (0.25)	6.3 (4.7)	9.8* (7.3*)	

*Combined limit for VOC and NO_x

C. Emissions from the operation of each compression ignition affected unit located in an attainment area shall not exceed the limits specified in Table 7 below.

TABLE 7

Emissions Limits for CI Engines Located in Nonattainment Areas

Generator Size	Displacement (liters/cylinder)	Engine Year	Emission Limits g/kW-hr (g/hp-hr)				VOC	NO _x
			PM	PM-10	PM 2.5	CO		
x < 8 kW (x < 11 hp)	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 hp ≤ x < 25 hp)	Less than 10	2010+	0.4 (0.30)	0.4 (0.30)	0.4 (0.30)	6.6 (4.9)	6.4* (4.8*)	

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19 kW ≤ x < 37 kW (25 hp ≤ x < 50 hp)	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 hp ≤ x < 100 hp)	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 hp ≤ x < 174 hp)	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 < 560 kW (174 hp ≤ x < 751 hp)	Less than 10	2010+	0.2 (0.15)	0.2 (0.15)	0.2 (0.15)	3.5 (2.6)	4.0*	
							(3.0*)	
560 kW ≤ x < 2,237 kW (751 hp ≤ x < 3,000 hp)	Less than 10	2010+	0.2 (0.15)	0.2 (0.15)	0.2 (0.15)	3.5 (2.6)	6.4*	
							(4.8*)	
x ≥ 2,237 kW (x ≥ 3,000 hp)	Less than 10	2010	0.54 (0.40)	0.54 (0.40)	0.54 (0.40)	11.4 (8.5)	1.3	6.4
							(1.0)	(4.8)
		2011+	0.2 (0.15)	0.2 (0.15)	0.2 (0.15)	3.5 (2.6)	6.4*	
							(4.8*)	
x ≥ 2,237 kW (x ≥ 3,000 hp)	10.0 ≤ x < 15.0	2010+	0.27 (0.20)	0.27 (0.20)	0.27 (0.20)	5.0 (3.7)	6.4*	
							(4.8*)	

*Combined limit for VOC and NO_x

D The permittee shall not exceed the limits specified in Table 8 below when testing.

TABLE 8

Emissions Limits During Testing for CI Engines Located in Nonattainment Areas

Generator Size (kW)	Displacement (liters/cylinder)	Engine Year	Emission Limits (g/kW-hr)					VOC	NO _x
			PM	PM-10	PM 2.5	CO			
x < 8 kW (x < 11 hp)	Less than 10	2010+	0.5 (0.4)	0.5 (0.4)	0.5 (0.4)	10.0 (7.5)	8.0*		
							(6.0*)		
8 kW ≤ x < 19 kW (11 hp ≤ x < 25 hp)	Less than 10	2010+	0.5 (0.4)	0.5 (0.4)	0.5 (0.4)	8.3 (6.2)	8.0*		
							(6.0*)		
19 kW ≤ x < 37 kW (25 hp ≤ x < 50 hp)	Less than 10	2010+	0.38 (0.28)	0.38 (0.28)	0.38 (0.28)	6.9 (5.1)	8.0*		
							(6.0*)		
37 kW ≤ x < 75 kW (50 hp ≤ x < 100 hp)	Less than 10	2010+	0.5 (0.4)	0.5 (0.4)	0.5 (0.4)	6.3 (4.7)	5.9*		
							(4.4*)		
75 kW ≤ x < 130 kW (100 hp ≤ x < 174 hp)	Less than 10	2010+	0.38 (0.28)	0.38 (0.28)	0.38 (0.28)	6.3 (4.7)	5.0*		
							(3.7*)		
130 kW ≤ x < 560 kW (174 hp ≤ x < 751 hp)	Less than 10	2010+	0.25 (0.19)	0.25 (0.19)	0.25 (0.19)	4.4 (3.3)	5.0*		
							(3.7*)		

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560 kW ≤ x < 2,237 kW (751 hp ≤ x < 3,000 hp)	Less than 10	2010+	0.25	0.25	0.25	4.4 (3.3)	8.0*
			(0.19)	(0.19)	(0.19)		(6.0*)
x ≥ 2,237 kW (x ≥ 3,000 hp)	Less than 10	2010	0.68	0.68	0.68	14.3 (10.7)	1.6 (1.2)
			(0.51)	(0.51)	(0.51)		8.0 (6.0)
		2011+	0.25	0.25	0.25	4.4 (3.3)	8.0*
			(0.19)	(0.19)	(0.19)		(6.0*)
x ≥ 2,237 kW (x ≥ 3,000 hp)	10.0 ≤ x < 15.0	2010+	0.34	0.34	0.34	6.3 (4.7)	8.0*
			(0.25)	(0.25)	(0.25)		(6.0*)

*Combined limit for VOC and NO_x

E. Emissions from the operation of each spark ignition affected unit shall not exceed the limits specified in Table 9 below.

TABLE 9

Emissions Limits for SI Engines

Engine Year	Emission Limits g/kW-hr (g/hp-hr)					NO _x
	PM	PM-10	PM 2.5	CO	VOC	
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 permittee may meet the alternative standards below: (ppm at 15% O ₂)		
				540	86	160

F. Combined facility wide emissions from the operation of the affected emergency generation unit shall not exceed the limits specified in Table 10 below.

TABLE 10

Combined Facility-Wide Emissions Limits for Affected Units

Pollutant	Nonattainment Areas Emissions (tons/yr)	Attainment Areas Emissions (tons/yr)
PM	1.4	2.3
PM-10	1.4	2.3
PM 2.5	1.4	2.3
NO _x	24.4	39.4

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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 (5) percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A)**. 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 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 10 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). 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 permittee shall maintain **on site** records of emission data and operating parameters as necessary to demonstrate compliance with this general permit.

B. The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility 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-

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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 permittee for each electric generating facility. The written standard operating procedures prepared by the permittee cannot be less stringent than the written manufacturer specifications.

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

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

9VAC5-540-210. Reporting requirements.

A. The permittee shall furnish written notification to the Regional Office of the following:

1. The actual date on which construction or modification or reconstruction 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 start-up date of each affected unit postmarked not more than 60 days nor less than 30 days prior to such date.

4. The actual start-up date of each affected unit within 15 days after such date.

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

B. The permittee 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 permittee 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 permittee shall notify the regional office.