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

Generators General Permit (Rev. Eg)

DATE: August 24, 2010

INTRODUCTION

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

Start: 12:35 a.m. **End:** 4:00 p.m.

Subcommittee Members Present:

Elizabeth Aiken
Jerome A. Brooks
Terry Darton (via conference call)
Michael W. Kendall, R.S.
Mary E. Major
Rebekah Remick
William Scarpinato
Susan Stewart
Joe Suchecki

Subcommittee Members Absent:

Walid M. Daniel, PE, CEM

Public Attendees:

None

SUMMARY OF DISCUSSION

Ms. Major explained that the draft regulation had been forwarded to the DEQ Regional Offices for comment and that several issues raised by the regions needed to be reviewed by the TAC. Ms Rebekah Remick provided a summary of those issues. The TAC reached consensus on the following issues:

Questions for the TAC on DRAFT Generator GPs August 24, 2010

1. <u>Peak Shaver and Emergency GP:</u> Testing requirements: Why do the peak shavers have to test and the emergency generators do not when they are both limited to approximately the same amount of runtime? What is our reasoning for not testing the emergency generators?

The emissions are certified by the engine manufacturer and it does not make economic sense to have every owner and operator of an emergency engine to do a performance test on certified emergency engines that are not likely to operate more than 30-50 hours per year. Peak shavers will operate more often and therefore, testing is appropriate for those sources.

2. <u>Definitions:</u> Do we want to define terms that are already defined in other regulations (i.e. spell it out and copy/paste) or do we not want to do this (i.e. the public/sources would just have to find the definitions in other regs)? What would be easier for the public/sources?

No need to redefine terms already defined in other parts of the Board's regulations.

3. <u>Definitions:</u> Diesel Fuel (Question for Bill from Dominion) – What does ASTM D975 actually say? We received a comment that D975 does not use the descriptor "ultra low sulfur diesel fuel" and that it uses the grade followed by "S15", "S500", or "S5000" to distinguish diesels of different sulfur contents. We need to be consistent with the ASTM or just reference the ASTM and delete the extra wording.

Bill will provide information about the ASTM.

"Diesel fuel" means any liquid that meets the specifications of ultra-low sulfur diesel fuel as defined by the American Society for Testing and Materials in ASTM D975.

4. <u>Definitions:</u> Biodiesel Blends (Question for Joe from Chicago) - So an engine can't use B21 through B99? (Joe, didn't you say that anything higher than that wouldn't run the engine or wouldn't be good for the engine?)

"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.

Correct. The engine manufacturers will not use greater than B20 in their engines for warranty purposes since biodiesel breaks down and can harm the engine.

5. <u>Transfer for authorizations:</u> It was suggested to delete the last part of this condition from the general permit since the GP is only for the affected units. What other "pieces of equipment" would there be? The only thing that we could think of was control equipment. Can control equipment be moved i.e. is it add on or internal?

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.

Yes

6. <u>General Question:</u> LPG, liquid propane gas (wording comes from legislation), and liquid petroleum gas (what LPG actually means), propane...which one do we want?

Liquid petroleum gas

7. <u>General Question:</u> What happens if the source starts out non-major, gets the GP, and then becomes a major source in the future. Is the General Permit no longer valid?

The facility would have to get an individual permit that supersedes the GP and the GP would be invalid.

The group also reviewed the draft regulation and identified many areas that need modification based upon the above-mentioned issues as well as other formatting and editorial changes. A revised draft will be distributed to the TAC.

NEXT MEETING DATE

No additional meetings are scheduled at this time.

DOCUMENT DISTRIBUTION

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

- 1. Copy of Meeting attendees
- 2. Emergency Generator General Permit Draft # 6

TEMPLATES\GEN-PERMIT\GP08 REG\GEN-DEV\Eg-GP08-6

Attachments

COMMONWEALTH OF VIRGINIA STATE AIR POLLUTION CONTROL BOARD

TECHNICAL ADVISORY COMMITTEE MEETING ATTENDANCE RECORD

August 24, 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
Elizabeth, Aiken,	La Consequence Con
Mike Kendall	Melellandell
Jee Suchecki	The White A
Bill Scarpinato	W/M/1/1/
Rebekuh Kemick	Revelate Verhice
Both Major	M2 Map
Jerone a Brook,	Janua O Browken

TEMPLATES\GEN-PERMIT\TAC\TC05c REG\GP-DEV\CG-Tac-05c-4

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. 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 Generation Source

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.

9VAC5-540-10. General.

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 source.

"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 as designated under § 107 of the federal Clean Air Act.

"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.

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

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

"Construction" means fabrication, erection or installation of an emissions unit.

"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 number 1 or number 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.

"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:

- 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 source" means a stationary internal combustion engine that operates according to the procedures in the ISO's emergency operations manual during an ISO-declared emergency only during an emergency.

"Emissions unit" means any part of a stationary source which emits or would have the potential to emit any regulated air pollutant.

"Facility" means something that is built, installed or established to serve a particular purpose; includes, but is not limited to, buildings, installations, public works, businesses, commercial and industrial plants, shops and stores, heating and power plants, apparatus, processes, operations, structures, and equipment of all types.

"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 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 electric generating unit is started on site and ending when the electric generating 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 <u>break</u> horsepower (bhp)" means the conversion of 1 kW = 1.341 bhp

"Load curtailment" means similar to demand response, but 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 3 (9VAC5-360 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 of 9VAC5-80 (Permits for Stationary Sources).

"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.

"Modification" means any physical change in, change in the method of operation of, or addition to, a stationary source that would result in a net emissions increase of any regulated air pollutant emitted into the atmosphere by the source or which results in the emission of any regulated air pollutant into the atmosphere not previously emitted, except that the following shall not, by themselves (unless previously limited by permit conditions), be considered modifications under this definition:

- 1. Maintenance, repair and replacement which the board determines to be routine for a source type and which does not fall within the definition of "reconstruction";
- 2. An increase in the production rate of a unit, if that increase does not exceed the operating design capacity of that unit;
 - 3. An increase in the hours of operation;
- 4. Use of an alternative fuel or raw material if, prior to the date any provision of the regulations of the board becomes applicable to the source type, the source was designed to accommodate that alternative use. A source shall be considered to be designed to accommodate an alternative fuel or raw material if provisions for that use were included in the final construction specifications;
- 5. The addition, replacement or use of any system or device whose primary function is the reduction of air pollutants, except when a system or device that is necessary to comply with applicable air pollution control laws and regulations is replaced by a system or device which the board considers to be less efficient in the control of air pollution emissions; or
- 6. The removal of any system or device whose primary function is the reduction of air pollutants if the system or device is not necessary for the source to comply with any applicable air pollution control laws or regulations.

"Nonattainment area" means any area that does not meet the national ambient air quality standards for any pollutant as designated under § 107 of the federal Clean Air Act and listed in 9 VAC 5-20-204. Jed: means any location listed in 9VAC5-20-204 for any one pollutant. For purposes of this general permit, a location cannot be classified as both nonattainment and attainment.

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

"Owner" means any person, including bodies politic and corporate, associations, partnerships, personal representatives, trustees and committees, as well as individuals, who owns, leases, operates, controls or supervises a source.

"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.

"Reconstruction" means the replacement of an affected unit or its components to such an extent that:

- 1. The fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new unit;
- 2. The replacement significantly extends the life of the emissions unit; and
- 3. It is technologically and economically feasible to meet the applicable emission standards prescribed under regulations of the board.

Any determination by the board as to whether a proposed replacement constitutes reconstruction shall be based on:

- 1. The fixed capital cost of the replacements in comparison to the fixed capital cost of the construction of a comparable entirely new unit;
- 2. The estimated life of the unit after the replacements compared to the life of a comparable entirely new unit;

3. The extent to which the components being replaced cause or contribute to the emissions from the unit; and

4. Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.

"Spark ignition (SI) engine" 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. Dualfuel 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 operational period, unless an extension is approved by the department. (potential conflict with definition of integration operational period) 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.

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

"Volatile organic compound" or "VOC" means volatile organic compound as defined in 9VAC5-10.

PART II. GENERAL PROVISIONS.

9VAC5-540-30. Basis.

This general permit is being issued under the authority of §10.1-1308.1 of the Code of Virginia and 9VAC5-80-1250.

9VAC5-540-40. Applicability.

- A. The affected unit to which this chapter applies is each emergency generation unit for which construction, installation, or operation relocation or modification is commenced on or after the date of this general permit [insert effective date of this chapter] and that meets the requirements stated below:
- 1. New, greenfield new stationary source CI engines, located in an attainment area with an aggregate rated electrical power output identified in Table I below:

TABLE I.

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

Greater than or equal to: Generator Size kW (bhp)	And less than: Generator Size kW (bhp)	With a Displacement of: (liters/cylinder)	With an Engine Model 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. New, greenfield stationary source CI engines, located in a nonattainment area with an aggregate rated electrical power output identified in Table II:

TABLE II.

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

Greater than or equal to:	And less than:	With a	With an
Generator Size	Generator Size	Displacement of:	Engine
kW (bhp)	kW (bhp)	(liters/cylinder)	Model 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)	$10.0 \le x < 15.0$	2010+

3. Modified (Jed's concern with modified) CI engines, located in an attainment area with an aggregate rated electrical power output identified in Table III:

TABLE III.

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

Greater than or equal to:	And less than:	With a	With an
Generator Size	Generator Size	Displacement of:	Engine
kW (bhp)	kW (bhp)	(liters/cylinder)	Model
			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)	$10.0 \le x < 15.0$	2010+

4. Modified CI engines, located in a nonattainment area with an aggregate rated electrical power output identified in Table IV:

TABLE IV.

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

Greater than or equal to: Generator Size kW (bhp)	And less than: Generator Size kW (bhp)	With a Displacement of: (liters/cylinder)	With an Engine Model 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. New, greenfield stationary source SI engines located in an attainment area with an aggregate rated electrical power output greater than or equal to 26,870 kW (36,033 bhp) and less than 29,420 kW (39,452 bhp).
- 6. New, greenfield stationary source SI engines located in a nonattainment area with an aggregate rated electrical power output greater than or equal to 1,534 kW (2,057 bhp) and less than 16,399 kW(21,991 bhp).
- 7. Modified (Jed's issue) SI engines located in an attainment area which with an aggregate rated electrical power output greater than or equal to 6,710 kW (8,998 bhp) and less than 29,420 kW (39,452 bhp).
- 8. Modified SI engines located in a nonattainment area which have an aggregate rated electrical power output greater than or equal to 383 kW (514 bhp) and less than 16,399 kW(21,991 bhp).
 - 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 <u>subject to the provisions</u> of Articles 1, 7, 8, or 9 of Part II of 9VAC5-80 (Permits for Stationary Sources) shall not be eligible for this general permit.
- C. The following electric generating unit or units shall not be eligible for this general permit:
- 1. Any electric generating unit that is a major source or is located at a major source, and subject to the provisions of the major new source review program and codified in Articles 1, 7, 8, or 9 of Part II of 9 VAC 5-80(Permits for Stationary Sources).
- 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 2. Any 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 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 department, 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 owner;
- 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
- 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 department approved period between phases of a phased construction project.
- E. At all times, including periods of start-up, 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 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. 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.
- J. The owner shall keep a copy of this permit on the premises of the affected unit to which it applies. Not always possible?

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 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 an affected unit 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 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 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.
- 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. 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 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 owner 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 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 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 an owner 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.
- H. This permit does not convey any property rights of any sort, or any exclusive privilege.
- I. 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 permit or to determine compliance with this 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.

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 electric generating unit as determined by the regional office
- 2. A document certification with all applicable requirements completed 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 a 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 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 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 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), and 9VAC5-540-210 (Reporting requirements).

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 permit except where board regulations or policies prohibit such activities.
- B. The owner 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 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 monthly and yearly operating hours for each affected unit or source, calculated monthly as the sum of each consecutive 12-month period.
- B. Each metering 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.

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.
- 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 9VAC5-540-170.
- C. The approved fuels for each CI affected unit are diesel fuel, bio-diesel fuel and bio-diesel blends. These fuels shall meet the following specifications:
- 1. Diesel fuel which meets the ASTM D975 specification for number 1 or number 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 SI affected unit are natural gas and liquid propane 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.
- E. For units using diesel fuel or bio-diesel fuel, the owner 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 diesel 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 number 1 or number 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 CI affected unit located in an attainment area shall not exceed the limits specified in Table V.

TABLE V.

Emissions Limits for CI Engines Located in Attainment Areas

Generator Size	Displacement	Engine	Emission Limits g/kW-hr (g/bhp-hr)				
	liters/cylinder	Model Year	PM	PM ₁₀	PM _{2.5}	СО	VOC NO _X
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)	7.5* (5.6*)
8 kW ≤ x < 19 kW	Less than 10	2010+	0.4	0.4	0.4	6.6	7.5*
(11 bhp ≤ x < 25 bhp)			(0.30)	(0.30)	(0.30)	(4.9)	(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*
$(751 \text{ bhp} \le x < 3,000 \text{ bhp})$			(0.15)	(0.15)	(0.15)	(2.6)	(4.8*)
$x \ge 2,237 \text{ kW}$ (x \ge 3,000 bhp)	Less than 10	2010	0.54 (0.40)	0.54 (0.40)	0.54 (0.40)	11.4 (8.5)	1.3 9.2 (1.0) (6.9)
(x = 0,000 2p)		2011+	0.2 (0.15)	0.2 (0.15)	0.2 (0.15)	3.5 (2.6)	6.4*
			, ,	, ,	, ,		,
$x \ge 2,237 \text{ kW}$	$10.0 \le x < 15.0$	2010+	0.27 (0.20)	0.27 (0.20)	0.27 (0.20)	5.0 (3.7)	7.8* (5.8*)
$(x \ge 3,000 \text{ bhp})$			(0.20)	(0.20)	(0.20)	(3.7)	(5.6)

^{*}Combined limit for VOC and NO_X

B Emissions from the operation of each affected unit during testing shall not exceed the limits specified in Table VI.

TABLE VI.

Emissions Limits During Testing for CI Engines Located in Attainment Areas

Generator Size	Displacement	Engine		[Emission (g/kW-		
(kW)	liters/cylinder	Model Year	PM	PM ₁₀	PM _{2.5}	[°] CO	VO NO _X
x < 8 kW (x < 11 bhp)	Less than 10	2010+	0.5 (0.4)	0.5 (0.4)	0.5 (0.4)	10.0 (7.5)	9.4* (7.0*)
8 kW ≤ x < 19 kW (11 bhp ≤ x < 25 bhp)	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 bhp ≤ x < 50 bhp)	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 bhp ≤ x < 100 bhp)	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 bhp ≤ x < 174 bhp)	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	Less than 10	2010+	0.25	0.25	0.25	4.4	5.0*
kW (174 bhp ≤ x < 751 bhp)			(0.19)	(0.19)	(0.19)	(3.3)	(3.7*)
560 kW ≤ x < 2,237 kW	Less than 10	2010+	0.25	0.25	0.25	4.4	8.0*
(751 bhp \leq x < 3,000 bhp)			(0.19)	(0.19)	(0.19)	(3.3)	(6.0*)
x ≥ 2,237 kW (x ≥ 3,000 bhp)	Less than 10	2010 2011+	0.68 (0.51) 0.25 (0.19)	0.68 (0.51) 0.25 (0.19)	0.68 (0.51) 0.25 (0.19)	14.3 (10.7) 4.4 (3.3)	1.6 11.5 (8.6) 8.0* (6.0*)
$x \ge 2,237 \text{ kW}$ (x \ge 3,000 bhp)	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 CI affected unit located in an attainment area shall not exceed the limits specified in Table VII.

TABLE VII.

Emissions Limits for CI Engines Located in Nonattainment Areas

Generator Size	Displacement	Engine	Emission Limits g/kW-hr (g/bhp-hr)					
	liters/cylinder	<u>Model</u> Year	PM	PM ₁₀	PM _{2.5}	co	VOC	NO _X
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)		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)		4* 8*)
19 kW \leq x $<$ 37 kW (25 bhp \leq x $<$ 50 bhp)	Less than 10	2010+	0.3 (0.22)	0.3 (0.22)	0.3 (0.22)	5.5 (4.1)		4* 8*)
37 kW \leq x < 75 kW (50 bhp \leq x < 100 bhp)	Less than 10	2010+	0.4 (0.30)	0.4 (0.30)	0.4 (0.30)	5.0 (3.7)		7* 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)	(3.0	
130 kW ≤ x < 560 kW (174 bhp ≤ x < 751 bhp)	Less than 10	2010+	0.2 (0.15)	0.2 (0.15)	0.2 (0.15)	3.5 (2.6)	4.0	
560 kW ≤ x < 2,237 kW (751 bhp ≤ x < 3,000 bhp)	Less than 10	2010+	0.2 (0.15)	0.2 (0.15)	0.2 (0.15)	3.5 (2.6)	6.4.8	
x ≥ 2,237 kW (x ≥ 3,000 bhp)	Less than 10	2010 2011+	0.54 (0.40) 0.2 (0.15)	0.54 (0.40) 0.2 (0.15)	0.54 (0.40) 0.2 (0.15)	11.4 (8.5) 3.5 (2.6)	1.3 (1.0) 6.4 (4.8	
$x \ge 2,237 \text{ kW}$ (x \ge 3,000 bhp)	10.0 ≤ x < 15.0	2010+	0.27 (0.20)	0.27 (0.20)	0.27 (0.20)	5.0 (3.7)	6.4	

^{*}Combined limit for VOC and NO_X

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

TABLE VIII.

Emissions Limits During Testing for CI Engines Located in Attainment Areas

Generator Size	Displacement	Engine	Emission Limits (g/kW-hr)					
(kW)	liters/cylinder	<u>Model</u> Year	PM	PM ₁₀	PM _{2.5}	['] CO	VOC	NO _X
x < 8 kW (x < 11 bhp)	Less than 10	2010+	0.5 (0.4)	0.5 (0.4)	0.5 (0.4)	10.0 (7.5)	8. (6.	_
8 kW ≤ x < 19 kW (11 bhp ≤ x < 25 bhp)	Less than 10	2010+	0.5 (0.4)	0.5 (0.4)	0.5 (0.4)	8.3 (6.2)	8.	
19 kW \leq x < 37 kW (25 bhp \leq x < 50 bhp)	Less than 10	2010+	0.38 (0.28)	0.38 (0.28)	0.38 (0.28)	6.9 (5.1)	8.(6.	
$37 \text{ kW} \le x < 75 \text{ kW}$ (50 bhp $\le x < 100 \text{ bhp}$)	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 bhp ≤ x < 174 bhp)	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 bhp ≤ x < 751 bhp)	Less than 10	2010+	0.25 (0.19)	0.25 (0.19)	0.25 (0.19)	4.4 (3.3)	5.(3.	

560 kW \leq x $<$ 2,237 kW (751 bhp \leq x $<$ 3,000 bhp)	Less than 10	2010+	0.25 (0.19)	0.25 (0.19)	0.25 (0.19)	4.4 (3.3)	8.0*	
$x \ge 2,237 \text{ kW}$ (x \ge 3,000 bhp)	Less than 10	2010 2011+	0.68 (0.51) 0.25 (0.19)	0.68 (0.51) 0.25 (0.19)	0.68 (0.51) 0.25 (0.19)	14.3 (10.7) 4.4 (3.3)		8.0 (6.0) 0* 0*)
$x \ge 2,237 \text{ kW}$ (x \ge 3,000 bhp)	10.0 ≤ x < 15.0	2010+	0.34 (0.25)	0.34 (0.25)	0.34 (0.25)	6.3 (4.7)		0* 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 Engines

Engine	Emission Limits g/kW-hr (g/bhp-hr)					
Model Year	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: (ppm at 15% 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	Attainment	
	Areas	Areas	
	Emissions	Emissions	
	(tons/year)	(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 5.0% opacity except during one 6-minute period in any one hour in which visible emissions shall not exceed 20% 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% opacity except during one 6-minute period in any one hour in which visible emissions shall not exceed 10% opacity as determined by the 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 (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. 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.
- 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.
- 9VAC5-540-210. 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 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.

Rev 6