



Exempt Action Final Regulation Agency Background Document

Agency name	State Air Pollution Control Board
Virginia Administrative Code (VAC) citation	Primary action: 9VAC5-540 Secondary action: none
Regulation title	Emergency Generator General Permit
Action title	Emergency Generator General Permit (Rev. Eg)
Date this document prepared	June 14, 2011

When a regulatory action is exempt from executive branch review pursuant to § 2.2-4002 or § 2.2-4006 A of the Administrative Process Act (APA), the agency is encouraged to provide information to the public on the Regulatory Town Hall using this form.

Note: While posting this form on the Town Hall is optional, the agency must comply with requirements of the Virginia Register Act, the *Virginia Register Form, Style, and Procedure Manual*, and Executive Orders 14 (2010) and 58 (99).

Summary

Please provide a brief summary of all regulatory changes, including the rationale behind such changes. Alert the reader to all substantive matters or changes. If applicable, generally describe the existing regulation.

The General Assembly adopted legislation (§ 10.1-1307.02 B) which mandates that the Board develop a general permit for the use of back-up generation to authorize the construction, installation, reconstruction, modification, and operation of emergency generation sources during independent service operator (ISO) declared emergencies. It includes the definition of "emergency generation source" as a stationary internal combustion engine that operates according to the procedures in the ISO's emergency operations manual during an ISO-declared emergency. It includes emissions limits for both compression ignition (CI) and spark ignition (SI) emergency generation sources and provides more stringent emission limits for those sources operating in nonattainment areas (i.e., Northern Virginia) than for sources operating in attainment areas.

The regulation does not require any owner to apply for coverage under the general permit but provides the opportunity for an owner to apply for coverage if the source meets the requirements of the regulation.

The only substantive change to the regulation was a modification of the definition of "demand response" by clarifying that demand response participants do not include affected units that are participating in an ISO's Manual 13 Emergency Operations program.

Statement of final agency action

Please provide a statement of the final action taken by the agency, including (1) the date the action was taken, (2) the name of the agency taking the action, and (3) the title of the regulation.

On June 10, 2011, the State Air Pollution Control Board adopted a final regulation entitled "Emergency General Permit" (9 VAC 5 Chapter 540). The regulation is to be effective as provided in the Administrative Process Act.

General permits are exempt from certain provisions of the state administrative procedures for the adoption of regulations as provided in § 2.2-4006 A 8 of the Code of Virginia.

Changes made since the proposed stage

Please describe all changes made to the text of the proposed regulation since the publication of the proposed stage. For the Registrar's office, please put an asterisk next to any substantive changes.

Section number	Requirement at proposed stage	What has changed	Rationale for change
*9VAC5-540-20	"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.	Added the following clarifying language: "Demand response participants do not include affected units that are participating in an ISO's Manual 13 Emergency Operations program."	Provides clarity.
9VAC5-540-180	Table IX: Instead of meeting the limits stated above, the owner may meet the alternative standards below: (ppm at 15 percent O ₂)	Table IX: Instead of meeting the limits stated above, the owner may meet the alternative standards below: (ppm ppmvd] at 15 percent O ₂)	Technical correction

Public comment

Please summarize all comments received during the public comment period following the publication of the proposed stage, and provide the agency response. If no comment was received, please so indicate.

Commenter	Comment	Agency response
<p>Richard H. Counihan, Vice President Government Affairs, EnerNOC, Inc.</p>	<p>EnerNOC strongly supports the DEQ's proposal to allow new emergency engines to participate in emergency demand response (DR) programs such as PJM's Emergency Load Response Program (ELRP) via its definition of emergency in the proposed rules. Numerous states have similarly changed their definition of emergency, in order to allow the use of emergency engines in emergency DR programs (e.g., to use the engines just before lights out rather than waiting for a blackout).</p>	<p>Support for the proposal is appreciated.</p>
<p>Donald C. DiCristofaro, CCM, President, Blue Sky Environmental LLC .</p>	<p>Blue Sky strongly endorses the VA DEQ's intent to include in its definition of emergency to allow emergency engines to include situations when emergency demand response (DR) events are activated. The entity that controls much of the electric grid in Virginia is Pennsylvania Jersey Maryland Interconnection, LLC (PJM). PJM has implemented the Emergency Load Response Program ("ELRP") as its last panic button to be used to prevent brownouts and blackouts. The ELRP for emergency engines is only implemented once PJM notifies electric distributors that an emergency exists or may occur and it is necessary to implement the procedures in the PJM Manual 13 Emergency Operations. In the eastern portion of PJM (including parts of Virginia), the ELRP has only been called a total of 20 hours from 2003 thru 2009. In 2010, the ELRP was called in the Dominion portion of Virginia for 5.3 hours. The ELRP has never been called in the western portion of PJM. The emergency DR program is truly reserved for severe, emergency conditions.</p>	<p>Support for the proposal is appreciated.</p>
<p>Richard H. Counihan, Vice President Government Affairs, EnerNOC, Inc.</p>	<p>EnerNOC strongly supports the DEQ's proposal to allow new emergency engines to participate in emergency demand response (DR) programs such as PJM's Emergency Load Response Program (ELRP) via its definition of emergency in the proposed rules. Numerous states have similarly changed their definition of emergency, in order to allow the use of emergency engines in emergency DR programs (e.g., to use the engines just before lights out rather than waiting for a</p>	<p>Support for the proposal is appreciated.</p>

<p>Donald C. DiCristofaro, CCM, President, Blue Sky Environmental LLC and Richard H. Counihan, Vice President Government Affairs, EnerNOC, Inc.</p>	<p>blackout). Since the ELRP is often referred to as "emergency DR" and peak shaving is referred to as "nonemergency DR" the DEQ may consider a modification to its definitions of demand response in both 9VAC5-530-20 and 9VAC5-540-20 to avoid any misconceptions. The DEQ may consider adding the following sentence to the definitions of "demand response" in both proposed General Permits: "Demand response does not include emergency engines participating in an ISO-declared emergency."</p>	<p>This comment is acceptable and appropriate changes reflecting the intent of the comment have been made to the proposal.</p>
<p>Donald C. DiCristofaro, CCM, President, Blue Sky Environmental LLC.</p>	<p>It is understood that the Proposed Emergency Engine General Permit only affects newly installed or modified engines. This is recommended since the DEQ should not be required to permit existing emergency engines which would be a waste of valuable DEQ resources.</p>	<p>The commenter's understanding is correct. Section 9VAC5-540-40, Applicability, stipulates that the regulation applies only to units constructed or modified after the effective date of the regulation. No changes have been made to the proposal based on this comment.</p>
<p>Donald C. DiCristofaro, CCM, President, Blue Sky Environmental LLC.</p>	<p>In the proposed Emergency Generator General Permit, 9VAC5-540-170 A allows each affected unit located in an attainment area to operate up to 450 hours per year and 9VAC5-540-170 B allows each affected unit located in a non-attainment area to operate up to 500 hours per year. It is believed the DEQ has the hours mixed up and meant 450 hours for nonattainment areas and 500 hours for attainment areas.</p>	<p>DEQ does not disagree that it appears that the allowable hours of operation are reversed for permitting thresholds in attainment and nonattainment areas. Attainment areas and nonattainment areas have different hours of operation throughputs because of permit applicability. In a nonattainment area, permit applicability for emergency generators is based on 8,760 hours of operation per year (hrs/yr). The large number for hours of operation results in lower size applicability thresholds which, in turn, results in more engines being permitted in nonattainment areas. In an attainment area, permit applicability for emergency generators is based on 500 hours of operation per year (hrs/yr). The smaller number for hours of operation results in a higher size applicability threshold. The Technical Advisory Committee (TAC) considered several other factors when</p>

		<p>determining the maximum number of hours that would be allowed for operation of emergency units including the year the regulation would become effective (2011) and the maximum emission rates listed in the New Source Performance Standards (NSPS) Subpart IIII and JJJJ of 40 CFR Part 60. Calculations using the annual permit emission limits, hours of operation and the NSPS emissions rates resulted in establishing the maximum aggregate horsepower rating (MAHR) for both SI and CI engines in nonattainment and attainment areas. The MAHR establishes the emission level above which the general permit does not apply.</p> <p>The Technical Advisory Committee (TAC) also established the annual emission limit for NO_x at a level such that modeling is not required (according to current agency policy) which, for an attainment area, is an annual emission limit of 39.4 tons/yr. However, the permitting exemption level for NO_x is 40 tons/yr. Based on operations of 500 hr/yr in an attainment area, an emergency generator would not qualify for both the permitting threshold limit of 40 tons of NO_x/yr and meet the NO_x emission limit of 39.4 tons/yr because operating at 500 hours would exceed the maximum emissions limit. As a result, the TAC decided to limit the emergency generators in attainment areas to 450 hrs/yr, thereby ensuring that emergency generators could qualify for a general permit.</p> <p>No changes have been made to the proposal based on this comment.</p>
<p>Donald C. DiCristofaro, CCM,</p>	<p>Table V of 9VAC5-540-170 provides the emission limits for CI units located in</p>	<p>Emission limits were split into an attainment area and a</p>

<p>President, Blue Sky Environmental LLC.</p>	<p>attainment areas and Table VII provides the emission limits in non-attainment areas. Since the EPA New Source Performance Standards (NSPS) for CI engines (Subpart IIII of 40 CFR Part 60) do not differentiate between attainment and nonattainment areas, it is unclear why the DEQ has decided to provide different emission limits. For example, see the >2,237 kW emission limits for less than 10 liters/cylinder for 2010 engines: The NO_x emission limit is 9.2 g/kW per hour for attainment areas and is 6.4 g/kW per hour for nonattainment areas.) Engine manufactures build engines to meet the NSPS requirements. Since the NSPS does not differentiate between attainment and nonattainment areas, in order to meet the requirements of Table VII, add-on emission controls would most likely be required adding a very large burden to the engine owner. It is recommended that both Tables V and VII be equivalent and they should match the NSPS. Likewise Tables VI and VIII should be equivalent.</p>	<p>nonattainment area because a state Best Available Control Technology (BACT) limit of 4.8 g NO_x/hp-hr has already been established for an emergency generator in a nonattainment area. Therefore, if the state BACT limit was more stringent than the NSPS limit, the more stringent state BACT limit was used.</p> <p>As to the "large burden" of add-on controls for the engine owner, the cost of any add on controls may be compensated for by the financial incentive contained in the agreement that the emission unit owner enters into with the power provider as a pass-through cost.</p> <p>No changes have been made to the proposal based on this comment.</p>
<p>Donald C. DiCristofaro, CCM, President, Blue Sky Environmental LLC.</p>	<p>In Table IX, it is unclear where the emission limits for SI units for PM, PM₁₀, and PM_{2.5} come from since the NSPS (Subpart JJJJ of 40 CFR Part 60) does not include emissions limits for these pollutants.</p>	<p>SI engines size thresholds were based on NSPS, Subpart JJJJ standards (NO_x, CO, and VOC) and AP-42 (PM, PM₁₀, and PM_{2.5}) for emission factors.</p>
<p>Donald C. DiCristofaro, CCM, President, Blue Sky Environmental LLC.</p>	<p>Limits presented in Table IX are appropriate for engines >130 hp and this should be added to the table.</p>	<p>Subpart JJJJ of 40 CFR Part 60, states that it is for engines "25 > x < 130 HP and x ≥ 130 HP." Therefore, the Technical Advisory Committee determined that no size limit was necessary as the NSPS applies to all size engines which are required to be permitted.</p> <p>No changes have been made to the proposal based on this comment.</p>
<p>Donald C. DiCristofaro, CCM, President, Blue Sky Environmental LLC.</p>	<p>Finally, Table IX, "ppm" should be changed to "ppmvd."</p>	<p>This comment is acceptable and appropriate changes reflecting the intent of the comment have been made to the proposal.</p>

All changes made in this regulatory action

Please detail all changes that are being proposed and the consequences of the proposed changes. Detail new provisions and/or all changes to existing sections.

Current section number	Proposed new section number, if applicable	Current requirement	Proposed change and rationale
9VAC5-540-20		"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.	Add the following sentence to the end of the definition: "Demand response participants do not include affected units that are participating in an ISO's Manual 13 Emergency Operations program. " The sentence provides additional clarity to the definition.
9VAC5-540-180	Table IX: Instead of meeting the limits stated above, the owner may meet the alternative standards below: (ppm at 15 percent O ₂)	Table IX: Instead of meeting the limits stated above, the owner may meet the alternative standards below: (ppm ppmvd] at 15 percent O ₂)	Technical correction

Regulatory flexibility analysis

Please describe the agency's analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: (1) the establishment of less stringent compliance or reporting requirements; (2) the establishment of less stringent schedules or deadlines for compliance or reporting requirements; (3) the consolidation or simplification of compliance or reporting requirements; (4) the establishment of performance standards for small businesses to replace design or operational standards required in the proposed regulation; and (5) the exemption of small businesses from all or any part of the requirements contained in the proposed regulation.

The regulation applies to emergency generation sources that operate during ISO-declared emergencies including any associated with small businesses. Any (1) establishment of less stringent compliance or reporting standards; (2) establishment of less stringent schedules or deadlines for compliance or reporting requirements; (3) consolidation or simplification of compliance or reporting requirements; (4) establishment of performance standards for small businesses to replace design or operational standards

required in the proposed regulation; or (5) exemption of small businesses from all or any part of the requirements contained in the proposed regulation for all small businesses would directly, significantly and adversely affect the benefits that would be achieved through the implementation of the regulations. The responsibility of ensuring health air quality for all citizens of the Commonwealth must be balanced with unnecessary regulatory burdens for small businesses. The formation of a general permit for emergency generation sources operating during ISO-declared emergencies achieves this balance.

Family impact

Assess the impact of this regulatory action on the institution of the family and family stability.

It is not anticipated that these regulation amendments will have a direct impact on families. However, there will be positive indirect impacts in that the regulation amendments will ensure that the Commonwealth's air pollution control regulations will function as effectively as possible, thus contributing to reductions in related health and welfare problems.

TEMPLATES\GEN-PERMIT\TH09-GP
REG\GP-DEV\Eg-10TF