



## Exempt Action Proposed Regulation Agency Background Document

<b>Approving authority name</b>	State Air Pollution Control Board
<b>Virginia Administrative Code (VAC) citation</b>	9VAC5-520
<b>Regulation title</b>	Qualified Energy Generator General Permit for a Biomass Pilot Test Facility
<b>Action title</b>	Biomass Energy Generator General Permit (Rev. Cg)
<b>Date this document prepared</b>	September 10, 2010

When a regulatory action is exempt from executive branch review pursuant to § 2.2-4006 A 9 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 regulation will create a mechanism for sources to construct and test to determine the type and quantity of emissions from a qualified energy generator that meets the requirements of the regulation. It applies to qualified energy generators that generate no more than five megawatts of electricity, or produce the equivalent amount of energy in the form of fuel, steam, or other energy product per year from biomass. Biomass includes organic material available on a renewable or recurring basis, including:

1. Forest-related materials, including mill residues, logging residues, forest thinnings, slash, brush, low-commercial value materials or undesirable species, and woody material harvested for the purpose of forest fire fuel reduction or forest health and watershed improvement;
2. Agricultural-related materials, including orchard trees, vineyard, grain or crop residues, including straws, aquatic plants and agricultural processed co-products and waste products, including fats, oils, greases, whey, and lactose;
3. Animal waste, including manure and slaughterhouse and other processing waste;
4. Solid woody waste materials, including landscape trimmings, waste pallets, crates and manufacturing, construction, and demolition wood wastes, excluding pressure-treated, chemically treated or painted wood wastes and wood contaminated with plastic;
5. Crops and trees planted for the purpose of being used to produce energy;

- 6. Landfill gas, wastewater treatment gas, and biosolids, including organic waste byproducts generated during the wastewater treatment process; and
- 7. Municipal solid waste, excluding tires and medical and hazardous waste.

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.

**Legal basis**

*Please identify the state and/or federal legal authority to promulgate this proposed regulation, including (1) the most relevant law and/or regulation, including Code of Virginia citation and General Assembly chapter numbers, if applicable, and (2) promulgating entity, i.e., agency, board, or person. Describe the legal authority and the extent to which the authority is mandatory or discretionary.*

Section 10.1-1308 of the Virginia Air Pollution Control Law (Title 10.1, Chapter 13 of the Code of Virginia) authorizes the State Air Pollution Control Board to promulgate regulations abating, controlling and prohibiting air pollution in order to protect public health and welfare. Letters providing written assurance from the Office of the Attorney General that (i) the Board has statutory authority to promulgate the proposed regulation amendments and (ii) the amendments qualify as an exemption under § 2.2-4006 A 9 of the Administrative Process Act are available upon request.

Promulgating Entity

The promulgating entity for this regulation is the State Air Pollution Control Board.

Federal Requirements

Section 110(a) of the Clean Air Act (CAA) mandates that each state adopt and submit to EPA a plan which provides for the implementation, maintenance, and enforcement of each primary and secondary air quality standard within each air quality control region in the state. The state implementation plan shall be adopted only after reasonable public notice is given and public hearings are held. The plan shall include provisions to accomplish, among other tasks, the following:

- (1) establish enforceable emission limitations and other control measures as necessary to comply with the provisions of the CAA, including economic incentives such as fees, marketable permits, and auctions of emissions rights;
- (2) establish a program for the enforcement of the emission limitations and schedules for compliance; and
- (3) establish programs for the regulation and permitting of the modification and construction of any stationary source within the areas covered by the plan to assure the achievement of the ambient air quality standards.

40 CFR Part 51 sets out requirements for the preparation, adoption, and submittal of state implementation plans. These requirements mandate that any such plan shall include several provisions, as summarized below.

Subpart F (Procedural Requirements) specifies definitions of key terms, stipulations and format for plan submission, requirements for public hearings, and conditions for plan revisions and federal approval.

Subpart G (Control Strategy) specifies the description of emissions reductions estimates sufficient to attain and maintain the standards, the description of control measures and schedules for implementation,

time periods for demonstrations of the control strategy's adequacy, an emissions inventory, an air quality data summary, data availability, special requirements for lead emissions, stack height provisions, and intermittent control systems.

Subpart I (Review of New Sources and Modifications) specifies legally enforceable procedures, public availability of information on sources, identification of responsible agency, and administrative procedures.

Section 51.160 of Subpart I specifies that the plan must stipulate legally enforceable procedures that enable the permitting agency to determine whether the construction or modification of a facility, building, structure or installation, or combination of these will result in either a violation of any part of a control strategy or interference with attainment or maintenance of a national standard and, if such violation or interference would occur, the means by which the construction or modification can be prevented. The procedures must identify types and sizes of facilities, buildings, structures or installations which will be subject to review and discuss the basis for determining which facilities will be subject to review. The procedures must provide that owners of facilities, buildings, structures or installations must submit information on the nature and amounts of emissions and on the location, construction and operation of the facility. The procedures must ensure that owners comply with applicable control strategies after permit approval. The procedures must discuss air quality data and modeling requirements on which applications must be based.

Section 51.161 of Subpart I specifies that the permitting agency must provide opportunity for public comment on information submitted by owners and on the agency's analysis of the effect of construction or modification on ambient air quality, including the agency's proposed approval or disapproval. Section 51.161 also specifies the minimum requirements for public notice and comment on this information.

Section 51.162 of Subpart I specifies that the responsible agency must be identified in the plan.

Section 51.163 of Subpart I specifies that the plan must include administrative procedures to be followed in determining whether the construction or modification of a facility, building, structure or installation will violate applicable control strategies or interfere with the attainment or maintenance of a national standard.

Subpart L (Legal Authority) specifies identification of legal authority to implement plans and assignment of legal authority to local agencies.

Section 51.230 of Subpart L specifies that each state implementation plan must show that the state has the legal authority to carry out the plan, including the authority to perform the following actions:

- (1) adopt emission standards and limitations and any other measures necessary for the attainment and maintenance of the national ambient air quality standards;
- (2) enforce applicable laws, regulations, and standards, and seek injunctive relief;
- (3) obtain information necessary to determine whether air pollution sources are in compliance with applicable laws, regulations, and standards, including authority to require recordkeeping and to make inspections and conduct tests of air pollution sources; and
- (4) prevent construction, modification, or operation of a facility, building, structure, or installation, or combination thereof, which directly or indirectly results or may result in emissions of any air pollutant at any location which will prevent the attainment or maintenance of a national standard.

Section 51.231 of Subpart L requires the identification of legal authority as follows:

- (1) the provisions of law or regulation which the state determines provide the authorities required under § 51.231 must be specifically identified, and copies of such laws or regulations must be submitted with the plan; and

(2) the plan must show that the legal authorities specified in Subpart L are available to the state at the time of submission of the plan.

### State Requirements

Section 10.1-1308.1 of the Virginia Air Pollution Control Law (Title 10.1, Chapter 13 of the Code of Virginia) establishes the requirement to develop a general permit(s) authorizing a streamlined permitting process for qualified energy generators.

## Purpose

*Please explain the need for the new or amended regulation by (1) detailing the specific reasons why this regulatory action is essential to protect the health, safety, or welfare of citizens, and (2) discussing the goals of the proposal, the environmental benefits, and the problems the proposal is intended to solve.*

The purpose of the regulation is to provide a streamlined process for permitting electric generating units that use biomass as a fuel for electricity generation such that the emissions from the units in no way endangers the public health. The proposed amendments are being made to develop a general permit with terms and conditions as may be necessary to form the legally enforceable basis for the implementation of all regulatory and statutory requirements applicable to new emissions units that meet the requirements of a qualified energy generator as defined in §10.1-1308.1 of the Code of Virginia. Such sources generate no more than five megawatts of electricity, or produce the equivalent amount of energy in the form of fuel, stream, or other energy product.

## Substance

*Please briefly identify and explain the new substantive provisions (for new regulations), the substantive changes to existing sections, or both where appropriate. (More detail about these changes is requested in the "Detail of changes" section.)*

1. Definitions used in the regulation are identified.
2. General provisions are established which cover the overall basis, applicability and general requirements of the general permit.
3. Procedures for obtaining the general permit are described and provide requirements for granting an authorization to operate under the general permit, applications for coverage under the general permit, required information for initial applications, authorization to construct and test, and transfer of authorization to construct and test.
4. General permit terms and conditions are established. They include process requirements, a permit emissions threshold, a testing schedule, compliance determination and verification, recordkeeping and reporting requirements and compliance and enforcement provisions.
5. The permit pertains to new sources only as the requirements for modified sources adds excessive complexities to an already complex process; the permitting threshold limits for modified sources are different than for new sources.

6. The permit requires a certified fuel test for all feed-stock used in the process as well as a certified stack test. The fuel analysis provides a good basis to estimate which pollutants might be coming out of the stack; the stack test verifies the emissions.

7. A source is exempt from permitting if the uncontrolled emissions are below the permitting emission threshold limits listed in the regulation.

**Issues**

*Please identify the issues associated with the proposed regulatory action, including: (1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions; (2) the primary advantages and disadvantages to the agency or the Commonwealth; and (3) other pertinent matters of interest to the regulated community, government officials, and the public. If the regulatory action poses no disadvantages to the public or the Commonwealth, please so indicate.*

1. Public: The primary advantage to the public is a streamlined process for permitting small electric generating facilities using biomass fuels. This will encourage the development of alternative energy sources resulting in more options for electricity available to commercial facilities and the citizens of Virginia. Some facilities may utilize heretofore unused organic materials to supplement their own electrical needs and not put the material into a landfill.

2. Department: The benefit to the department will be a more efficient permitting process for small biomass facilities and a reduction in the number of permits that need to be modified or changed due to incorrect emissions data provided prior to the construction of the facility.

**Requirements more restrictive than federal**

*Please identify and describe any requirement of the proposal which are more restrictive than applicable federal requirements. Include a rationale for the need for the more restrictive requirements. If there are no applicable federal requirements or no requirements that exceed applicable federal requirements, include a statement to that effect.*

The proposed regulation amendments are not more restrictive than the applicable legal requirements.

**Localities particularly affected**

*Please identify any locality particularly affected by the proposed regulation. Locality particularly affected means any locality which bears any identified disproportionate material impact which would not be experienced by other localities.*

There is no locality which will bear any identified disproportionate material air quality impact due to the proposed regulation which would not be experienced by other localities.

## Public participation

*Please include a statement that in addition to any other comments on the proposal, the agency is seeking comments on the costs and benefits of the proposal, the potential impacts of the regulation on the regulated community, and the impacts of the regulation on farm or forest land preservation.*

In addition to any other comments, the Department is seeking comments on the costs and benefits of the proposal, the potential impacts on the regulated community, and impacts of the regulation on farm and forest land preservation. Also, the Department is seeking information on impacts to small businesses as defined in § 2.2-4007.1 of the Code of Virginia. Information may include (1) projected reporting, recordkeeping and other administrative costs, (2) probable effect of the proposal on affected small businesses, and (3) description of less intrusive or costly alternative methods of achieving the purpose of the proposal.

The department also seeks comment on the following issues:

1. The interpretation of the phrase “capacity annually to generate no more than 5 megawatts (MW) of electricity” used in the definition of “Qualified energy generator”: Is the intent to limit the rated capacity of the generator or to limit the total amount of electricity generated over a 12 month period? If it is the latter, how would the output be monitored to ensure 5 megawatts is not exceeded and what are the consequences if it is?

2. Should the timeframe for testing be extended beyond 12 months, and is the regulatory language sufficiently clear to expressly authorize facility operations during that timeframe to only conduct testing?

3. Fuel testing is currently required one time prior to emissions testing. Should there be a requirement that fuel be reevaluated periodically for sources that receive a permit; for sources that are exempt from permitting, or for both?

Anyone wishing to submit written comments may do so at the public hearing or by mail, email, or fax to the staff contact listed below. Comments may also be submitted through the Public Forum feature of the Virginia Regulatory Town Hall web site at [www.townhall.virginia.gov](http://www.townhall.virginia.gov). Written comments must include the full name, address and telephone number of the commenter and be received by the Department on the date established as the close of the comment period. Commenters submitting faxes are encouraged to provide the signed original by postal mail within one week.

A public hearing will be held and notice of the public hearing will appear on the Virginia Regulatory Town Hall web site ([www.townhall.virginia.gov](http://www.townhall.virginia.gov)) and in the Virginia Register of Regulations. Both oral and written comments may be submitted at that time. All testimony, exhibits and documents received are part of the public record.

All comments requested by this document must be submitted to the agency contact: Mary Major, Environmental Program Manager, Office of Regulatory Affairs, Department of Environmental Quality, P.O. Box 1105, Richmond, Virginia, 23218 (email [mary.major@deq.virginia.gov](mailto:mary.major@deq.virginia.gov), fax 804-698-4510).

## Economic impact

*Please identify the anticipated economic impact of the proposed new regulations or amendments to the existing regulation. When describing a particular economic impact, please specify which new requirement or change in requirement creates the anticipated economic impact.*

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Under the traditional concept of an air permit program the enabling requirements (legal authority, processing requirements, permit content requirements, etc.) are promulgated in law or regulation and the permit itself (the legally binding document containing the terms and conditions placed upon the permittee) is promulgated in a letter, certificate or other document issued by the department. This is in contrast to the general permit (GP) program in which both the enabling requirements and the permit are promulgated in regulation. The main difference between the two is that the GP by state law must be promulgated in regulation, while the regular permit can be issued by the state agency as a case decision.

The issuance of a general permit will reduce the staff time involved in the review of each case decision; a significant portion of that review will occur during the development of the regulation for the general permit. In addition, the issuance of this general permit will allow the permittee to construct and test the emissions from the facility, thus encouraging the development of biomass energy generation. Under the traditional approach, the specific emissions from a source are required prior to issuing a permit. There is a cost associated with conducting a fuel analysis and the stack test, however, a fuel analysis will provide a good basis to estimate which pollutants might be coming out of the stack; the stack test will verify the emissions thus ensuring the protection of health.

The development of alternative energy sources is particularly important as a way to encourage economic growth and reduce the energy costs for the Commonwealth. The use of waste material from logging, manufacturing, agricultural or municipal operations as well as energy crops and other biomass fuel will provide the catalyst for significant economic impact benefit to the Commonwealth and also reduce the use of traditional fuels, reduce waste disposal cost and other environmental impacts and provide additional revenue crops for farmers and loggers.

## Alternatives

*Please describe any viable alternatives to the proposal considered and the rationale used by the agency to select the least burdensome or intrusive alternative that meets the essential purpose of the action. Also, include discussion of less intrusive or less costly alternatives for small businesses, as defined in §2.2-4007.1 of the Code of Virginia, of achieving the purpose of the regulation.*

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As provided in the public participation procedures of the State Air Pollution Control Board, the department included, in the Notice of Intended Regulatory Action, a description of the department's alternatives and a request for comments on other alternatives and the costs and benefits of the department's alternatives or any other alternatives that the commenters provided.

Following the above, alternatives to the proposal were considered by the department. The department determined that the first alternative is appropriate, as it is the least burdensome and least intrusive alternative that fully meets the purpose of the proposal. The alternatives considered by the department, along with the reasoning by which the department has rejected any of the alternatives being considered, are discussed below.

1. Develop a regulation to satisfy the provisions of the law and associated regulations and policies. This option is being selected because it meets the stated purpose of the regulatory action: to develop a general permit with terms and conditions as may be necessary to form the legally enforceable basis for the implementation of all regulatory and statutory requirements applicable to new emissions units that meet the requirements of a qualified energy generator as defined in §10.1-1308.1 of the Code of Virginia.

2. Make alternative regulatory changes to those required by the provisions of the law and associated regulations and policies. This option is not being selected because it would be contrary to the requirements of in §10.1-1308.1 of the Code of Virginia.

3. Take no action to amend the regulations and continue to operate under the existing regulatory program. This option is not being selected because it would also be contrary to the requirements of in §10.1-1308.1 of the Code of Virginia.

**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 any qualified energy generator using biomass as a fuel that meet the requirements as stipulated, including 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 qualified energy generators achieves this balance.

**Public comment**

*Please summarize all comments received during public comment period following the publication of the NOIRA, and provide the agency response.*

<b>Commenter</b>	<b>Comment</b>	<b>Agency response</b>
Tony Banks Virginia Farm Bureau	It is very important that biomass feedstocks and technologies be allowed to compete with one another in an equitable manner. It is necessary that any requirements remain neutral.	The agency concurs with the comment
Tony Banks Virginia Farm Bureau	It is requested that the general permit require the generator/technologies meet performance criteria necessary to comply with established air quality standards as opposed to the permit requiring the use of	The agency concurs with the comment



	specific types of equipment or technology processes.	
Tony Banks Virginia Farm Bureau	Every attempt should be made to streamline the permit application itself.	Every effort will be made to comply with state and federal air quality permitting requirements in an efficient manner.
Tony Banks Virginia Farm Bureau	DEQ should seek input from farm and forest owners and other stakeholders.	The agency concurs with the comment
Ian Heatwole	Biomass energy generation projects will benefit from the existence of a General Permit so long as the Permit covers not only the "energy generation" aspects, but also the "biomass handling" aspects of such projects. Otherwise a site specific permit would still be required	The agency concurs with the comment
Virginia Forestry Association	To inform public dialog on the benefits of using woody biomass as an energy source, it is imperative to pursue basic research identifying the actual quantity of recoverable biomass and net potential energy recovery. VFA calls for sound science as a basis for any positions or decisions related to utilization of woody biomass and promotion of wood use for energy or fuel production.	The agency concurs with the comment
Virginia Forestry Association	Free market forces should be the primary stimulant for the use of woody biomass as a renewable fuel source and for determining the optimum fuel choices for energy generation.	The agency concurs with the comment
Virginia Forestry Association	Governments should not directly subsidize businesses and industries, but VFA recognizes that extending certain incentives is a common practice by state and local governments in economic development. Such incentives should not be used if the result would be a significant and demonstrable adverse impact on existing businesses and sustainability of forest resources.	The agency concurs with the comment
Virginia Forestry Association	VFA supports government actions to promote energy production from woody biomass that is removed from public lands to reduce the threat of wildfire and insect infestation and to enhance wildlife diversity. VFA also supports the timely clean up, removal and use of woody biomass debris resulting from natural disasters	The agency concurs with the comment
Katie Frazier Virginia Agribusiness Council	Members believe that this regulatory action will help further encourage the generation of alternative energy from agricultural and forestal products.	The agency concurs with the comment

Katie Frazier Virginia Agribusiness Council	Members support the production of alternative energy generation as a means to diversity energy portfolios and the agribusiness economy as well as effort to minimize regulatory requirements or other barriers which may inhibit the successful growth of alternative energy generation.	The agency concurs with the comment
Hobey Bauhan Virginia Poultry Federation	VPF supports the proposed regulatory action because we hope that it will help facilitate waste to energy projects in the Commonwealth. The poultry industry produces certain waste streams that could potentially be converted to energy. Of particular relevance to this rulemaking is our interest in the use of poultry litter (manure and bedding material) as an energy source.	The agency concurs with the comment

**Family impact**

*Assess the impact of this regulatory action on the institution of the family and family stability including to what extent the regulatory action will: (1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; (2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one’s spouse, and one’s children and/or elderly parents; (3) strengthen or erode the marital commitment; and (4) increase or decrease disposable family income.*

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. Some family farms may use the general permit to utilize biomass generated by the farming operations it to generate electricity thus encouraging self-sufficiency and increase family income.

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