

COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD

9VAC5 CHAPTER 520.
BIOMASS ENERGY GENERATOR GENERAL PERMIT FOR A PILOT TEST
FACILITY.

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PART I.
Definitions.

9VAC5-520-10. General.

A. For the purpose of this chapter in the context of regulations of the board and related uses, the words or terms shall have the meanings given them in 9VAC5-520-20.

B. Unless specifically defined in the Virginia Air Pollution Control Law or in this chapter, terms used shall have the meanings given them by 9VAC5-80-1110 (definitions, Permits for New and Modified Stationary Sources) 9VAC5-10-20 (general definitions, Regulations for the Control and Abatement of Air Pollution), 9VAC5-170-20 (definitions, Regulation for General Administration), or commonly ascribed to them by recognized authorities, in that order of priority.

9VAC5-520-20. Terms defined.

"Agricultural processed co-products" means residual plant materials or products extracted from plant materials. This does not include products created as a result of a chemical reaction in which the plant materials have been intentionally chemically altered such as, but not limited to, biodiesel or glycerin.

"Biomass" means organic material that is available on a renewable or recurring basis, including:

1. Forest-related materials, including uncontaminated mill residues, logging residues, forest thinning, 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 animal 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.

"Biomass pilot test facility" means a facility that (i) is being operated [using biomass as a fuel] to obtain emissions testing data in order to determine if a source is subject to any new source review permit program, and (ii) includes the qualified energy generator and any fuel preparation, storage, and handling emission units.

"Biosolids" means a sewage sludge that has received an established treatment for required pathogen control and is treated or managed to reduce vector attraction to a satisfactory level and contains acceptable levels of pollutants, such that it is acceptable for use for land application, marketing, or distribution in accordance with 9VAC25-32 (Virginia Pollution Abatement Permit Program Regulation).

"Clean wood" means uncontaminated natural wood. Clean wood includes, but is not limited to, byproducts of harvesting activities conducted for forest management or commercial logging, or uncontaminated mill residues consisting of bark, chips, edgings, sawdust, shavings or slabs. It does not include wood that has been treated with glues, binders or resins.

"Construct and test" means to construct a biomass pilot test facility and associated equipment including a qualified energy generator, and to then conduct appropriate testing in accordance with 9VAC5-520-180 in order to determine the uncontrolled emissions rate from the facility. If the facility is determined to be exempt from all new source review permit programs in accordance with 9VAC5-520-170, the biomass pilot test facility may continue to operate in accordance with the terms and conditions of 9VAC5-520-180 J 2.

"Construction wood waste" means solid wood waste that is produced or generated during construction, renovation, remodeling, or repair of houses, commercial buildings and other structures.

"Contaminated" means, in reference to wood, wood products or wood residues, those that are painted, pigment-stained, chemically treated (other than with fungicide, glue, binder or resin), or pressure-treated with preservative compounds including, but not limited to chromate copper arsenate, pentachlorophenol, or creosote.

"Criteria pollutants" means any pollutant for which an ambient air quality standard is established under [9VAC5-30](#) (Ambient Air Quality Standards).

"Demolition wood waste" means solid woody waste resulting from the destruction of structures, and includes the same materials as construction wood waste.

"Exempt facility" means a biomass pilot test facility that has uncontrolled emissions below the permit emissions threshold values in 9VAC5-520-170 and is not required to obtain any new source review permit but must operate according to the terms and conditions set forth in 9VAC5-520-180 J 2.

"Garbage" means readily putrescible discarded materials composed of animal, vegetable or other organic matter.

"General permit" means, for a biomass pilot test facility, the terms and conditions in Part IV (9VAC5-520-160 et seq.) of this chapter that meet the requirements of Part II (9VAC5-520-30 et seq.) and Part III (9VAC5-520-90 et seq.) of this chapter and issued under the provisions of 9VAC5-80-1250.

"Hazardous waste" means a hazardous waste as defined in 9VAC20-60 (Hazardous Waste Management Regulations).

"Landfill" means a sanitary landfill, an industrial waste landfill, or a construction/demolition/debris landfill as defined in Part I (9VAC20-80-10 et seq.) of 9VAC20-80 (Solid Waste Management Regulations).

"Landscape trimmings" means trees, tree branches, bushes and shrubs, and clippings from tree branches, bushes and shrubs that come from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Landscape trimmings do not include collected leaves, grass, or grass clippings.

"Major new source review (NSR) permit" means a permit issued under the major new source review program.

"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 (9VAC5-80-360 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).

"Manufacturing wood waste" means uncontaminated solid woody waste and wood residue that is generated by one or more manufacturing processes. Such waste includes but is not limited to bark, sawdust, chips, scraps, slabs, millings, and shavings, but does not include process waste, by-product or co-product in which the wood or

residue has been chemically treated, such as that resulting from pulp and paper production or from cellulose production.

"Minor new source review (NSR) permit" means a permit issued under the minor new source review program.

"Minor new source review (minor NSR) program" means a preconstruction review and permit program (i) for regulated air pollutants from new stationary sources or projects that are not subject to review under the major new source review program, (ii) established to implement the requirements of §§ 110(a)(2)(C) and 112 of the federal Clean Air Act and associated regulations, and (iii) codified in Article 6 (9VAC5-80-1100 et seq.) of Part II of this chapter. The minor NSR program may also be used to implement the terms and conditions designated as state-only enforceable; however, those terms and conditions shall not be applicable federal requirements.

"Municipal solid waste" means household, commercial/retail, or institutional waste. Household waste includes garbage, trash and refuse discarded by residential dwellings, hotels, motels, and other similar permanent or temporary housing. Commercial/retail waste includes all solid waste discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes materials discarded by schools, by hospitals (nonmedical), by nonmanufacturing activities at prisons and government facilities, and other similar establishments or facilities. Household, commercial/retail, and institutional waste does include yard waste. Household, commercial/retail, and institutional waste does not include used oil; sewage sludge; wood pallets; construction and demolition wastes; clean wood; industrial process or manufacturing wastes; medical waste; or motor vehicles (including motor vehicle parts or vehicle fluff).

"New source review (NSR) permit" means a permit issued under the new source review program.

"New source review (NSR) program" means a preconstruction review and permit program (i) for new stationary sources or modifications (physical changes or changes in the method of operation), (ii) established to implement the requirements of §§ 110 (a)(2)(C), 112 (relating to permits for hazardous air pollutants), 165 (relating to permits in prevention of significant deterioration areas), and 173 (relating to permits in nonattainment areas) of the federal Clean Air Act and associated regulations, and (iii) codified in Article 6 (9VAC5-80-1100 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).

"Nitrogen oxides" or "NO_x" means all oxides of nitrogen except nitrous oxide, as measured by the applicable reference method, or an equivalent or alternative method.

"Particulate matter" or "PM" means any airborne finely divided solid or liquid

material with an aerodynamic diameter smaller than 100 micrometers.

"Particulate matter (PM) emissions" means all finely divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by the applicable reference method, or an equivalent or alternative method.

"Permit emission thresholds" means the value at which a permitting applicability determination can be made for a biomass pilot test facility based upon the quantity of emissions from that facility in accordance with the requirements of 9VAC5-520-170.

"Permittee" means the owner of an affected emissions unit covered under the general permit.

"PM_{2.5}" means fine particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured by the applicable reference method or an equivalent method.

"PM_{2.5} emissions" means finely divided solid or liquid material, with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers emitted to the ambient air as measured by the applicable reference method, or an equivalent or alternative method.

"PM₁₀" means particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the applicable reference method or an equivalent method.

"PM₁₀ emissions" means finely divided solid or liquid material, with an aerodynamic diameter less than or equal to a nominal 10 micrometers emitted to the ambient air as measured by the applicable reference method, or an equivalent or alternative method.

"Postmark" means an official mark on a piece of mail or date mark on electronic communications, which records the date and place of mailing or origination of an electronic communication.

"Potential to emit" means an emission rate based on the maximum capacity of a biomass pilot test facility to emit a toxic pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility to emit a toxic pollutant, including air pollution control equipment, and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limitation or its effect on emissions is state or federally enforceable. Fugitive emissions shall be included in determining a biomass pilot test facility's potential to emit.

"Qualified energy generator" means a commercial facility located in the Commonwealth (i) with the capacity annually to generate no more than five megawatts

(MW) of electricity, or that produces the equivalent amount of energy in the form of fuel, steam, or other energy product, (ii) that is generated or produced solely from biomass; and (iii) that is sold to an unrelated person or stationary source or used in a manufacturing process. For the purposes of this chapter the phrase "capacity annually to generate no more than 5 MW of electricity" shall mean a nameplate capacity equal to or less than five MW that is operated in conjunction with a biomass pilot test facility.

"Reasonable time" means business operating hours unless in response to a complaint.

"Reference method" means any method of sampling and analyzing for an air pollutant as described in the following EPA regulations:

1. For ambient air quality standards in [9VAC5-30](#) (Ambient Air Quality Standards): The applicable appendix of 40 CFR Part 50 or any method that has been designated as a reference method in accordance with 40 CFR Part 53, except that it does not include a method for which a reference designation has been canceled in accordance with 40 CFR 53.11 or 40 CFR 53.16.

2. For emission standards in [9VAC5-40](#) (Existing Stationary Sources) and [9VAC5-50](#) (New and Modified Stationary Sources): Appendix M of 40 CFR Part 51 or Appendix A of 40 CFR Part 60.

3. For emission standards in [9VAC5-60](#) (Hazardous Air Pollutant Sources): Appendix B of 40 CFR Part 61 or Appendix A of 40 CFR Part 63.

"Refuse" means all solid waste products having the characteristics of solids rather than liquids and which are composed wholly or partially of materials such as garbage, trash, rubbish, litter, residues from clean up of spills or contamination or other discarded materials.

"Sulfur dioxide" or "SO₂" means a colorless gas at standard conditions, having a molecular composition of one sulfur atom and two oxygen atoms, as measured by the applicable reference method, or an equivalent or alternative method.

"Solid waste" means a solid waste as described in [9VAC20-80](#) (Solid Waste Management Regulations).

"Solid woody waste" means waste consisting of uncontaminated wood and wood product, including tree stumps, trees, or tree limbs (any of which may be whole or cut). Solid woody waste does not include wood or wood products mixed with soil or other non-wood materials such as plastic, metal, cement or mineral fibers.

"Sulfur dioxide" or "SO₂" means a colorless gas at standard conditions, having a molecular composition of one sulfur atom and two oxygen atoms, as measured by the applicable reference method, or an equivalent or alternative method.

"Uncontrolled emissions or uncontrolled emissions rate" means the emission rate from an emissions unit when operating at maximum capacity without air pollution control equipment. Air pollution control equipment includes control equipment that is not vital to its operation, except that its use enables the owner to conform to applicable air pollution control laws and regulations. Annual uncontrolled emissions shall be based on the maximum annual rated capacity (based on 8,760 hours of operation per year) of the emissions unit, unless the emissions unit or stationary source is subject to state and federally enforceable permit conditions that limit the annual hours of operation. Enforceable permit conditions on the type or amount of material combusted, stored, or processed may be used in determining the uncontrolled emission rate of an emissions unit or stationary source. The uncontrolled emission rate of a stationary source is the sum of the uncontrolled emission rates of the individual emissions units. Secondary emissions do not count in determining the uncontrolled emission rate of a stationary source.

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

"Wood product" means manufactured wood such as plywood, particleboard, fiberboard, hardboard, oriented strand board, and engineered structural products, made from clean wood with or without glue, binder or resin. Wood product does not include products made with other non-wood materials such as plastic, metal, cement or mineral fibers.

"Wood residue" means, in reference to logging, manufacturing or milling processes, woody waste that is generated by cutting, chipping, grinding, shaping or smoothing of wood or wood products. Wood residue includes bark, chips, edging sawdust, shavings or slabs and may include small amounts of glue, binder or resin from wood products. Wood residue does not include woody waste mixed with soil or other non-wood materials such as plastic, metal, cement or mineral fibers.

"Yard waste" means collected leaves, grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs that come from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include (i) construction, renovation, and demolition wastes or (ii) clean wood.

PART II. GENERAL PROVISIONS.

9VAC5-520-30. Basis.

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

9VAC5-520-40. Applicability and designation of affected emissions unit.

A. The affected emissions unit to which the provisions of this chapter apply is each qualified energy generator that is a biomass pilot test facility for which testing is commenced on or after May 25, 2011.

B. This chapter applies throughout the Commonwealth of Virginia.

C. Any qualified energy generator, the construction or operation of which is subject to the major new source review program, shall not be eligible for the general permit.

D. Any qualified energy generator subject to § 129 of the federal Clean Air Act shall not be eligible for the general permit.

E. Any qualified energy generator that has initially applied for and received the authority to construct and operate under the general permit may apply for the authority to construct and operate under the general permit again for a different biomass fuel if the initial biomass fuel was found to be exempt. Once a qualified energy generator is issued a new source review permit for a specified biomass fuel as required under 9VAC5-520-180 J 3, the qualified energy generator will be subject to the provisions of 9VAC5-80 (Permits for Stationary Sources).

9VAC5-520-50. General authorization; conditions requiring a new source review permit.

A. A biomass pilot test facility desiring authority to construct and test under the general permit shall comply with the requirements of the general permit, may be subject to applicable requirements of 9VAC5-80 (Permits for Stationary Sources) and shall register with the department as required under 9VAC5-20-160.

B. A biomass pilot test facility may continue to operate under the terms and conditions set forth in 9VAC5-520 180 J 2 provided the test results demonstrate the emissions are below the permit emission threshold limits of 9VAC5-520-170 and the facility is exempt from the minor source permitting requirements.

C. No general permit for a biomass pilot test facility will be issued until the department has received a submission that the facility is not a major source subject to the provisions of Article 1, 3, 7, 8, or 9 of Part II of 9VAC5-80 (Permits for Stationary Sources). Each submission shall include the following statement by the permittee or authorized representative: "I am authorized to make this submission on behalf of the owners and operators of the biomass pilot test facility for which the submission is made. I certify under penalty of law that the statements and information submitted in this document and all its attachments were prepared in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and

complete. I certify, based on my knowledge of the biomass pilot test facility and the attached mathematical or engineering demonstration or both, that the facility is not a major source, ~~or~~ is not located at a major source defined in this chapter, ~~nor is it~~ or it is not subject to § 129 of the federal Clean Air Act. If information demonstrates that the facility is subject to the provisions of Article 1, 3, 7, 8, or 9 of Part II of 9VAC5-80 (Permits for Stationary Sources) or § 129 of the federal Clean Air Act, the facility will stop operation immediately. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

D. The department may require a permittee that is authorized to construct and test under this general permit to apply for and obtain a minor NSR permit. Any interested person may request the board to take action under this subdivision. Cases where an individual minor NSR permit may be required include the following:

1 The emissions are above the permit emission threshold limits of 9VAC5-520-170 for either criteria pollutants or hazardous air pollutants;

2 Circumstances have changed since the time of the request to be authorized to be exempt from permitting so that the emissions are no longer appropriately controlled under the terms and conditions of the exemption letter,

3. Either a temporary or permanent reduction or elimination of the emissions is necessary; or

4. Other relevant factors.

E. Permits may be required on a case-by-case basis. A biomass pilot test facility subject to an individual minor NSR permit according to 9VAC5-520-180 shall be notified of that decision and the reasons for it. The permittee must apply for a permit within 30 days of notice and is subject to the provisions of 9VAC5-520-180 J 3 a and b and 9VAC5-80 (Permits for Stationary Sources).

F. Any permittee authorized by a general permit may request to be excluded from the coverage of the general permit by applying for an individual minor new source review permit. The permittee shall submit an application as required by 9VAC5-80 (Permits for Stationary Sources).

G. When an individual minor NSR permit is issued to a permittee, coverage under the general permit is automatically terminated on the effective date of the minor NSR permit.

9VAC5-520-60. Existence of permit no defense.

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.

9VAC5-520-70. Circumvention.

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 section does not prohibit the construction of a stack.

9VAC5-520-80. Enforcement of a general permit.

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 (i) 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; (ii) knowingly makes any false statement, representation or certification in any form, in any notice or report required by a permit; (iii) 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.

PART III.
GENERAL PERMIT ADMINISTRATIVE PROCEDURES.

9VAC5-520-90. Requirements for granting an authorization to construct and test under the general permit.

A. The department may grant an authorization to construct and test under the general permit for a biomass pilot test facility that meets the applicability criteria in 9VAC5-520-40 and the testing schedule in 9VAC5-520-180.

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

9VAC5-520-100. Applications for coverage under the general permit.

A. Owners of a biomass pilot test facility that qualifies for the general permit may apply to the department for coverage under the terms and conditions of the general

permit.

B. The application shall meet the requirements of this chapter and include all information necessary to determine qualification for and to assure compliance with the general permit.

C. 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.

D. 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.

9VAC5-520-110. 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 permit application form for Biomass Pilot Test Facility General Permits as determined by the regional office.

2. A document certification with all applicable requirements completed by a responsible official.

9VAC5-520-120. Granting an authorization to construct and test under the general permit.

A. The department may grant authorization to construct and test under the conditions and terms of the general permit to sources that meet the applicability criteria set forth in 9VAC5-520-40.

B. Granting an authorization to construct and test under the general permit to a facility covered by the general permit is not subject to the public participation procedures under 9VAC5-80-1170.

9VAC5-520-130. Transfer of authorizations to construct and test under the general permit.

A. No person shall transfer an authorization to construct and test under the general permit from one biomass pilot test facility to another or from one piece of equipment to another.

B. In the case of a transfer of ownership of a biomass pilot test facility, the new owner shall comply with any permit issued or authorization to construct and test 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 a biomass pilot test facility source, the owner shall comply with any permit issued or authorization to construct and test under the general permit granted under the previous source name. The owner shall notify the department of the change in source name within 30 days of the name change.

PART IV. GENERAL PERMIT TERMS AND CONDITIONS.

9VAC5-520-140. General permit.

A. Any owner whose application is approved by the director shall receive this 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 qualified energy generators are authorized to construct and test under the authority of this permit, except those where board regulations or policies prohibit such operation.

C. The authorization to construct and test under this permit shall be in accordance with the cover letter to this permit, 9VAC5-520-150 (General terms and conditions), 9VAC5-520-160 (Process requirements) 9VAC5-520-170 (Permit emission thresholds), 9VAC5-520-180 (Testing schedule), 9VAC5-520-190 (Compliance determination and verification by emission testing), 9VAC5-520-200 (Recordkeeping requirements), 9VAC5-520-210 (Reporting requirements), 9VAC5-520-220 (Compliance), and 9VAC5-520-230 (Enforcement).

9VAC5-520-150. General terms and conditions.

A. The permittee is authorized to construct and test a biomass pilot test facility located within the boundaries of the Commonwealth of Virginia, in accordance with the approved permit application and conditions of this permit except where board regulations or policies prohibit such activities.

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

9VAC5-520-160. Process requirements.

A. Each biomass pilot test facility shall comply with visible emissions and fugitive dust/emissions standards of Article 1 (9VAC5-50-60 et seq.), of Part II of 9VAC5-50 (New and Modified Stationary Sources). No owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

B. Each biomass pilot test facility shall comply with the odor standards Article 2 (9VAC5-50-130 et seq.), of Part II of 9VAC5-50 (New and Modified Stationary Sources). Under no circumstances shall the biomass qualified energy generator or associated raw material storage or handling cause an odor objectionable to individuals of ordinary sensibility.

C. Once per week, the permittee shall observe the biomass pilot test facility's fuel preparation and storage operations to determine if there are any visible emissions excluding stack emissions. The presence of visible emissions shall indicate the need for prompt corrective action. The applicant shall keep a log of the observations. The log shall include the name of the observer, the date and time of the observations, the presence of visible emissions or lack thereof, and the date, time, and description of corrective actions taken whenever visible emissions were observed.

9VAC5-520-170. Permit emission threshold.

A. In determining whether a biomass pilot test facility is exempt from all new minor source review permit programs, the facility must be determined to be exempt under the provisions of 9VAC5-80 (Permits for Stationary Sources) and both subsections 1 and 2 of this subsection.

1. A biomass pilot test facility that measures uncontrolled emissions below the threshold values specified in Table 520-1 qualifies as an exempt facility. All biomass pilot test facilities and ancillary equipment shall be considered in the aggregate. A biomass pilot test facility that measures uncontrolled emissions at or above the permit emission threshold values specified in Table 520-1 provided it does not demonstrate it is a major source, shall obtain a permit according to the applicable provisions of 9VAC5-180 J 3.

TABLE 520-1.
PERMIT EMISSION THRESHOLD VALUES

Pollutant	Combined Units (tons/year)
PM	25
PM ₁₀	15
PM _{2.5}	10
NO _x	40
SO ₂	40
CO	100

a. The PM, PM₁₀, and PM_{2.5} values listed in Table 520-1 contain filterable and condensable particulates.

b. Permit emission threshold values for combined units listed in Table 520-1 include the qualified energy generator and any fuel preparation/storage emission units.

2. Any biomass pilot test facility with measurements that result in a potential to emit any toxic pollutant below threshold values specified in Article 5 (9VAC5-60-300 et seq.) of 9VAC5-60 (Hazardous Air Pollutant Sources) qualifies as an exempt facility. All biomass pilot test facilities and ancillary equipment shall be considered in the aggregate. Any biomass pilot test facility with measurements that result in a potential to emit any toxic pollutant at or above the threshold values specified in Article 5 (9VAC5-60-300 et seq.) of 9VAC5-60 (Hazardous Air Pollutant Sources) shall obtain a permit according to the applicable provisions of 9VAC5-520-180 J.

B. No applicant shall cause or allow to be discharged into the atmosphere from any biomass pilot test facility any visible emissions in excess of 10% opacity as determined by Reference Method 9 (9VAC5-50-410) from any stack, vent or duct. This opacity standard shall apply at all times except during periods of startup, shutdown, and malfunction.

9VAC5-520-180. Testing schedule.

A. All testing must be completed within 15 months from the actual startup date as determined under subsection E of this section.

B. Within 30 days after receipt of a biomass pilot test facility general permit application the regional office will notify the applicant of the status of the application with a review letter.

1. If a complete application is received, the review letter will state if the applicant is approved for the biomass pilot test facility general permit. If approved, the applicant has 18 months from the date of the review letter to commence construction of the biomass pilot test facility and its equipment.

2. If a complete application is not received, the applicant has 30 days to submit the additional information needed for a complete application. If the additional information is not received within 30 days, the application will be returned to the applicant and the application will be withdrawn. Within 30 days after receipt of the additional information, the department will respond with another review letter that will state if the applicant is approved for the biomass pilot test facility general permit. If approved, the provisions of subdivision A 1 of this subsection shall apply.

C. Within the approved 18 months, the applicant shall notify the regional office of the actual date on which construction of the biomass pilot test facility commenced within 30 days after such date.

1. The applicant may apply for another 18 month extension to commence construction on the biomass pilot test facility based upon a satisfactory demonstration that an extension is justified.

2. Only one extension is allowed and shall be limited to commencing construction on the biomass pilot test facility.

D. The applicant shall notify the regional office in writing or electronically of the anticipated startup date of the biomass pilot test facility postmarked not more than 60 days nor less than 30 days prior to such date.

E. The applicant shall notify the regional office in writing or electronically of the actual startup date of the biomass pilot test facility within 15 days after such date. The applicant shall operate and perform all testing needed to comply with this permit no later than 15 months from the actual startup date.

F. For each biomass fuel to be utilized, the applicant shall perform (or acquire) a certified fuel test as required by 9VAC5-520-190 A.

G. At least 30 days prior to testing, the applicant shall:

1. Notify the department in writing or electronically of the anticipated date of the performance tests of the biomass pilot test facility;

2. Submit a stack test protocol and visible emissions evaluation test protocol to the regional office; and

3. Submit the results of the certified fuel test or tests to the regional office.

H. The stack testing and visible emissions evaluation tests shall be performed within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after startup of the permitted facility according to 9VAC5-520-190 B, C and D as appropriate.

I. All results shall be submitted to the regional office in writing or electronically no later than 45 days after test completion of the stack tests and visible emissions evaluation.

J. Within 60 days, the regional office will review the results and notify the applicant of the status of the biomass pilot test facility.

1. If test results demonstrate that the biomass pilot test facility is a major

source, the facility shall cease operation immediately.

2. If test results demonstrate that the biomass pilot test facility is exempt from the minor source permitting requirements of all new source review programs, the regional office shall issue the applicant an exemption letter. The biomass pilot test facility will be authorized to operate under the terms and conditions set forth in the exemption letter and the biomass pilot test facility general permit will terminate. Any changes in the proposed operation of the facility may require a permit.

3. If testing demonstrates that the biomass pilot test facility is not exempt from the minor source permitting requirements of all new source review programs, the applicant shall obtain a permit as required by 9VAC5-80 (Permits for Stationary Sources).

a. An application for a new source review permit shall be submitted within 30 days of notification that the permit emission thresholds have been exceeded; if no application is received within the timeframe the facility shall shut down.

b. The facility shall be authorized to continue to operate according to the terms and conditions of the biomass pilot test facility general permit application until such time as a new source review permit is issued. Once a new source review permit is issued the facility shall operate according to the terms and conditions of the new source review permit and the authority to construct and operate under the biomass pilot test facility general permit will terminate.

c. All new source review permits will be issued within 90 days from receipt of a complete application.

9VAC5-520-190. Compliance determination and verification by emission testing.

A. A certified fuel test is required.

1. The permittee shall have a sample analyzed for each type of biomass used during the pilot test period.

2. The results of the fuel analysis shall be used to identify specific constituents of the fuel requiring further emissions testing.

3. The results shall be submitted to the regional office in writing or electronically prior to testing. The submittal shall include:

a. Fuel analysis;

b. Name of company and individual collecting the sample;

c. Identification of sampling method used;

- d. Sample (volume or mass);
- e. Number of samples taken;
- f. Date sample collected;
- g. Location of fuel when sample was taken;
- h. Date of analysis; and
- i. Name of company and individual conducting the analysis.

B. A test protocol for a certified stack test shall be submitted at least 30 days prior to testing.

1. The test protocol shall include information necessary to evaluate the emissions from the biomass pilot test facility and include, but not be limited to, operating rates or production rates as appropriate.

2. The details of conducting the tests shall be arranged with the regional office.

C. A certified stack test or other alternative method of evaluation acceptable to the department shall be conducted for each qualified energy generator stack to determine the quantity of pollutants from each biomass fuel.

1. Performance tests shall be conducted for all criteria pollutants.

2. Performance tests shall be conducted for any toxic pollutants that were found to be contained in the biomass fuel as stated in the certified fuel test.

3. A biomass pilot test facility utilizing a combustion process shall test for any toxic pollutants that are created from combustion (including but not limited to acetaldehyde, acrolein, benzene, formaldehyde, hydrochloric acid, hydrogen fluoride, naphthalene, trichloroethylene, and xylene).

4. The tests shall be performed within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility.

5. Test shall be conducted in accordance with reference methods or an alternative method approved by the department.

6. One copy of the test results shall be submitted to the regional office within 45 days after test completion and shall conform to the test report format in

subsection E of this section.

D. A certified visible emissions evaluation shall be conducted.

1. Concurrently with the certified stack test, Visible Emission Evaluations in accordance with Reference Method 9, shall also be conducted on each qualified energy generator.

2. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average.

3. The details of the tests shall be arranged with the regional office.

4. The permittee shall submit a test protocol at least 30 days prior to testing.

5. The evaluation shall be performed, reported, and demonstrate compliance within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility.

6. Should conditions prevent concurrent opacity observations:

a. The regional office shall be notified in writing or electronically, within seven days.

b. Visible emissions testing shall be rescheduled within 30 days.

c. Rescheduled testing shall be conducted under the same conditions (as possible) as the initial performance tests.

7. One copy of the test result shall be submitted to the regional office within 45 days after test completion and shall conform to the test report format in subsection F of this section.

E. The test report format for certified stack tests shall include the following:

1. A report cover containing:

a. The plant name;

b. The plant location;

c. Units tested at the source identified by the agency that have been issued reference numbers;

- d. Test dates;
 - e. The name of the individual conducting the test;
 - f. The address of the individual conducting the test; and
 - g. The report date.
2. A certification, including the date certified, which has been signed by:
- a. A test team leader or a certified observer;
 - b. The test reviewer; and
 - c. A responsible company official.
3. A copy of approved test protocol.
4. A summary including:
- a. The reason for testing;
 - b. Test dates;
 - c. Identification of the unit tested including the maximum rated capacity for each unit;
 - d. For each emission unit, a table showing:
 - (1) The operating rate;
 - (2) Test methods;
 - (3) The pollutants tested; and
 - (4) Test results for each run, including the run average;
 - e. Process and control equipment data for each run and the average, as required by the test protocol;
 - f. A statement that the test was conducted in accordance with the test-protocol, or identification and discussion of deviations, including the likely impact on results; and
 - g. Any other important information as determined by the regional office.

5. A description of source operation including:

- a. A description of the process;
- b. A description of control devices, if necessary;
- c. A process and control equipment flow diagram; and

d. A description of sampling port location and a dimensioned cross section. A protocol shall be attached that includes a sketch of the stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions.

6. Test results, including:

- a. Detailed test results for each run;
- b. Sample calculations; and
- c. A description of collected samples, including audits, when

applicable.

7. An appendix, including:

- a. Raw production data;
- b. Raw field data;
- c. Laboratory reports;
- d. Chain of custody records for laboratory samples;
- e. Calibration procedures and results;
- f. Project participants and contact information;
- g. Observers' names (including their industry and agency

affiliation);

- h. Related correspondence; and
- i. Standard procedures.

F. The test report format for visible emissions evaluations shall include the

following.

1. A report cover containing:
 - a. The plant name;
 - b. The plant location;
 - c. Units tested at the source identified by the department that have been issued reference numbers;
 - d. Test dates;
 - e. The name of the individual conducting the test;
 - f. The address of individual conducting test; and
 - g. The report date.
2. A certification, including the date certified, which has been signed by:
 - a. A test team leader or a certified observer; and
 - b. A responsible company official.
3. Copy of approved test protocol.
4. A summary including:
 - a. The reason for testing;
 - b. Test dates;
 - c. Identification of the unit tested including the maximum rated capacity for each unit;
 - d. Summarized process and control equipment data for each run and the average, as required by the test protocol;
 - e. A statement certifying that the test was conducted in accordance with the test-protocol or, if not conducted according to protocol, identification and discussion of deviations, including the likely impact on results; and
 - f. Any other important information.
5. A description of source operation including:

- a. A description of the process;
- b. A description of control devices, if necessary;
- c. A process and control equipment flow diagram; and

d. A description of sampling port location and a dimensioned cross section. A protocol shall be attached that includes a sketch of the stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions.

6. The detailed test results for each run.

7. An appendix including:

- a. The names of project participants and their titles;
- b. The observers' names including their industry and agency affiliation;
- c. Related correspondence; and
- d. Standard procedures.

9VAC5-520-200. Recordkeeping requirements.

A. The permittee shall maintain records on site for each emission unit or groups of emission units sufficient to determine the actual emissions of the biomass pilot test facility.

1. Records shall include but not be limited to emission data and operating parameters during emissions testing.

2. The content and format of such records shall be determined in consultation with the regional office.

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

B. The permittee shall prepare and maintain the following information:

1. Records of monitoring information including:

- a. The date of sampling or measurements;

general permit;

- b. The place as defined in the authorization to operate under this
- c. The time of sampling or measurements;
- d. The date or dates analyses were performed;
- e. Each biomass utilized and the rate of consumption;
- f. The company or entity that performed the analyses;
- g. The analytical techniques or methods used;
- h. The results of such analyses;
- i. The operating conditions existing at the time of sampling or measurement;
- j. Results of all stack tests, visible emission evaluations, and certified fuel tests;
- k. The copies of all notifications submitted to the regional office;
- l. The operating schedule as stated in 9VAC5-520-180;
- m. All visible emission records as required in 9VAC5-520-190 D;

and

- n. Documentation that the unit does not exceed the 5 MW nameplate capacity threshold.

2. Records of all monitoring data and support information shall be retained for 5 years and available on-site for inspection by the department during the pilot test trial period.

C. In order to ensure the proper operation of the biomass pilot test facility, the permittee shall perform the following:

1. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance to the biomass pilot test facility. These records shall be maintained on site for five years and shall be made available to department upon request.

2. Maintain verification that personnel operating the biomass pilot test facility are properly trained to do so.

9VAC5-520-210. Reporting requirements.

A. The permittee shall comply with the reporting requirements in this section. Any document (including reports) required by a permit term or condition to be submitted to the department shall contain a document certification signed by a responsible official that meets the requirements of 9VAC5-20-230.

B. The permittee shall furnish written notification to the department of the following dates relative to the requirements of 9VAC5-520-180:

1. The actual date on which construction or installation of any biomass pilot test facility commenced, postmarked within 30 days after that date;

2. The anticipated startup date of the biomass pilot test facility, postmarked not more than 60 days nor less than 30 days prior to such date;

3. The actual startup date of the biomass pilot test facility postmarked within 15 days after that date;

4. The test protocol, postmarked at least 30 days prior to the date that testing commences; and

5. Test results, no later than 45 days after test completion of the stack tests and visible emissions evaluation.

9 VAC 5-520-220. 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. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the department to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of this permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring equipment), practices, or operations regulated or required under this permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements.

9VAC5-520-230. Enforcement.

A. 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.

B. 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.

C. The permittee shall comply with all conditions of this permit. Any noncompliance with this permit constitutes a violation of the Virginia Air Pollution Control Law and is grounds (i) for enforcement action, or (ii) for suspension or revocation of the authorization to operate under this permit.

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

E. The authorization to construct and test under this permit may be suspended or revoked for cause as specified in 9VAC5-520-80. The filing by a permittee of a (i) request for reauthorization to operate under this permit, or (ii) notification of termination, planned changes or anticipated noncompliance does not stay any condition of this permit.

F. The owner of the qualified energy generator may be subject to enforcement action under 9VAC5-520-80 for operation without a permit if the facility is later determined by the department not to qualify for the conditions and terms of this permit.

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

H. The permittee shall furnish to the department, within 30 days of notification, any information that the department may request in writing to determine whether cause exists for suspending or revoking the authorization to operate under this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the department copies of records required to be kept by this permit and, for information claimed to be confidential, the permittee shall furnish such records to the department along with a claim of confidentiality meeting the requirements of 9VAC5-170-60.

HISTORICAL NOTES:
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