

AGENCY OF NATURAL RESOURCES  
Waterbury, Vermont

ENVIRONMENTAL PROTECTION REGULATIONS

CHAPTER 5

AIR POLLUTION CONTROL

Subchapter II. Prohibitions

**5-204 SITING AND STACK HEIGHT STANDARDS FOR OUTDOOR WOOD FIRED BOILERS;  
NOTIFICATION TO PURCHASERS**

(a) Applicability.

This section shall apply to each outdoor wood-fired boiler installed after October 1, 1997. Notwithstanding the preceding sentence, any outdoor wood-fired boiler that is subject to and compliant with Section 5-205 herein shall not be required to comply with paragraph (c)(2) of this section regarding minimum stack height.

(b) Definitions. For the purpose of this section and Section 5-205 herein, the following definitions apply, in addition to those of Section 5-101 of this chapter.

"*Outdoor Wood-Fired Boiler*" (a.k.a., outdoor wood-fired hydronic heater or outdoor wood furnace) means a fuel burning device designed: (1) to burn primarily wood by hand-firing; (2) not to be located inside structures ordinarily occupied by humans; and, (3) to heat spaces or water by the distribution through pipes of a fluid heated in the device, typically water. Examples of common uses of outdoor wood-fired boilers include: residential or commercial space heating, heating of domestic hot water, and heating of water for swimming pools, hot tubs or whirlpool baths.

(c) Prohibition.

No *person* shall install or allow the installation of an *outdoor wood-fired boiler* subject to the requirements of this section unless the *outdoor wood-fired boiler*:

- (1) Is located more than 200 feet from any residence other than a residence served by the *outdoor wood-fired boiler* or owned by the owner or lessee of the *outdoor wood-fired boiler*;
- (2) Has an attached permanent *stack* extending higher than the peak of the roof of the structure(s) being served by the *outdoor wood-fired boiler*, if any residence is located more than 200 but less than 500 feet from the *outdoor wood-fired boiler* other than a residence owned by the owner or lessee of such *outdoor wood-fired boiler*; and,

- (3) Complies with all applicable laws, including but not limited to local ordinances, and its operation does not create a public nuisance.
- (d) Notice to Buyers.
- (1) No *outdoor wood-fired boiler* subject to the requirements of this section shall be sold or offered for retail sale or lease within the State unless prior to any sales or lease agreement, the seller or dealer provides the prospective buyer or lessee with written notice stating that:
- (i) Only untreated *natural wood* may be burned in an *outdoor wood-fired boiler*;
- (ii) Installation of the *outdoor wood-fired boiler* is subject to the distance requirement and may be subject to the *stack height* requirement provided in this section. [Each notice shall expressly disclose each such requirement];
- (iii) Use of an *outdoor wood-fired boiler* that meets the distance and *stack height* requirements provided in this section is not appropriate in some areas due to terrain that could render the operation of an *outdoor wood-fired boiler* to be a nuisance or a public health hazard.
- (2) The written notice specified above shall be signed and dated by the prospective buyer or lessee to indicate receipt of notification of the requirements of this section. Prior to making delivery of an *outdoor wood-fired boiler* into the possession of any buyer or lessee, the seller or dealer shall mail or otherwise provide a copy of the signed notice specified above to the:

Air Pollution Control Division  
103 South Main Street  
Building 3 South  
Waterbury, Vermont 05671-0402.

Said notice shall contain the name, address and telephone number of both the seller or dealer and the buyer or lessee, the location where the *outdoor wood-fired boiler* will be installed and the make and model of the *outdoor wood-fired boiler*.

**5-205 CONTROL OF PARTICULATE MATTER FROM NEW OUTDOOR WOOD-FIRED BOILERS**

(a) Applicability

This section shall apply to any outdoor wood-fired boiler that is distributed or sold in Vermont or for installation in Vermont on or after March 31, 2008, except that this section does not apply to any outdoor wood-fired boiler that: (1) is or has been owned by an individual for his or her own personal use and is distributed or sold to another for his or her own personal use ; or (2) was purchased and received by any person in Vermont other than the manufacturer before October 1, 2007.

- (b) Definitions. For the purposes of this section, the following definitions apply, in addition to those of Sections 5-101 and 5-204 of this chapter.

"*Distribute or Sell*" means to distribute, sell, advertise for sale, offer for sale, hold for sale, ship, deliver for shipment, release for shipment, or receive and (having so received) deliver or offer to deliver. This term also includes conditional sales and long-term leases. This term does not include the distribution or sale by a manufacturer of an outdoor wood-fired boiler that is installed outside Vermont.

"*Manufacturer*" means any person who constructs or imports an outdoor wood-fired boiler.

"*Model line*" means all outdoor wood-fired boilers offered for distribution or sale by a single manufacturer that, in the judgment of the Air Pollution Control Officer, are similar in all material respects.

- (c) Standard for Particulate Matter; Certification

- (1) No person shall distribute or sell an outdoor wood-fired boiler in Vermont or for installation in Vermont unless the Air Pollution Control Officer has issued a certification to the manufacturer that the boiler, or the boiler model line to which it belongs, complies with the following particulate matter emission limit: An outdoor wood-fired boiler shall not emit, or cause or allow to be emitted, any gases that contain particulate matter in excess of 0.44 pounds per million BTUs of heat input, as determined in accordance with the test methods and procedures in subsection (d) of this section.
- (2) Unless revoked sooner by the Air Pollution Control Officer, a certification issued under this subsection shall be valid for five years from the date of issuance.
- (3) The distribution or sale of each outdoor wood-fired boiler subject to this section that has not been certified by the Air Pollution Control Officer as meeting the particulate matter emission limit in this subsection shall constitute a separate violation and be subject to civil or criminal penalties as provided in 10 V.S.A. Chapters 201 and 211, or 10 V.S.A. §568.

- (d) Emission Test Methods and Procedures

- (1) In order to obtain certification of an outdoor wood-fired boiler under subsection (c) of this section, the manufacturer of any such boiler shall have emission test(s) conducted to determine compliance with the particulate matter emission limit under subsection (c) of this section and furnish the Air Pollution Control Officer a written report of the results of such tests, including a detailed description of the operating conditions of the boiler during the tests. Said written report shall contain such documentation and other information and follow such format as may be specified by the Air Pollution Control Officer. In the discretion of the Air Pollution Control Officer, a manufacturer of an outdoor wood-fired boiler subject to this section may have

emission testing conducted of a representative boiler within a model line of outdoor wood-fired boilers and may use those tests to demonstrate compliance of all units manufactured in that model line.

- (2) All emission testing required under this section shall be conducted by independent testing consultants who have no conflict of interest and receive no financial benefit from the outcome of the testing. Manufacturers of outdoor wood-fired boilers shall not involve themselves in the conduct of any emission testing under this section nor in the operation of the unit being tested, once actual sampling has begun.
- (3) Emission tests shall be conducted and data reduced in accordance with:
  - (i) USEPA Draft Method 28 OWHH Standard Test Method for Measurement of Particulate Emissions and Heating Efficiency of Outdoor Wood-Fired Hydronic Heating Appliances, or
  - (ii) 40 CFR Part 60, Appendix A, Test Methods 1 through 5, and 40 CFR Part 51, Appendix M, Test Method 202, or
  - (iii) Alternative methods approved by the Air Pollution Control Officer.

All tests shall be conducted in accordance with Vermont's "Source Emission Testing Guidelines" (as amended) and under a test protocol which has received the prior approval of the Air Pollution Control Officer. Emission tests shall be conducted under such conditions as the Air Pollution Control Officer shall specify. Testing conducted using the above USEPA Draft Method 28 OWHH Standard Test Method or similar laboratory methods shall be performed only by laboratories that hold a valid certificate of accreditation granted by the USEPA pursuant to 40 CFR §60.535. The conditions during testing conducted using EPA Methods 1 through 5 and 202 shall be based on representative performance of the outdoor wood-fired boiler under actual field operating conditions.

- (4) The manufacturer of the outdoor wood-fired boiler shall provide the Air Pollution Control Officer with at least 30 days prior notice of any emission test to afford the Air Pollution Control Officer the opportunity to have an observer present. The manufacturer of an outdoor wood-fired boiler(s) being tested as required by this section shall reimburse the state of Vermont for the reasonable expenses incurred by any such Agency observer for out-of-state travel to observe such testing, including among other items the costs of transportation, lodging and meals.
- (e) Notification by Manufacturers
- (1) By March 1<sup>st</sup> of each year and as necessary when an outdoor wood-fired boiler is certified, each outdoor wood-fired boiler manufacturer shall provide the following information in writing to any person to whom the manufacturer has distributed or sold, intends to distribute or sell, or actually distributes or sells

outdoor wood-fired boilers in Vermont or for installation in Vermont:

- (i) A list of all the models of outdoor wood-fired boilers it manufactures; and
  - (ii) An identification of which, if any, of said models or boilers has received a certification of compliance under subsection (c) of this section and thus may be distributed or sold in Vermont or for installation in Vermont.
- (2) By March 15<sup>th</sup> of each year, a copy of all written information provided to comply with paragraph (1) of this subsection and a list of persons to whom it was provided shall be submitted to the Air Pollution Control Officer.
- (f) Future Particulate Matter Emission Standard

As soon as practicable, but no later than March 31, 2008, the Secretary shall file a proposed rule with the Secretary of State to establish a particulate matter emission limit for outdoor wood-fired boilers of 0.32 pounds per million BTUs of heat output, or such other limit that the Secretary determines may be necessary in accordance with 10 V.S.A. §558.