

Town of Sudbury
Board of Health
Outdoor Hydronic Heater Regulations

Section 1: Authority

This regulation is adopted under M.G.L. Chapter 111, Section 31, 31C, 142B, 142D, and 310 CMR 7.52, which gives the Sudbury Board of Health authority to make reasonable health regulations. This regulation is also adopted under M.G.L. Chapter 111, Section 122, which directs the Board of Health to examine all nuisances, sources of filth, and causes of sickness within its town, which may, in its opinion, be injurious to the public health and to destroy, remove, or prevent the same.

All applicable provisions of 310 CMR 7.26(50)-(54) are herein incorporated into this Regulation, unless exceeded by the provisions of this Regulation.

Section 2: Purpose

Outdoor Hydronic Heaters (OHH) have been shown, because of their design, to emit high quantities of particulate matter and noxious fumes. Health, safety, and nuisance problems have arisen from the use of Outdoor Hydronic Heaters. Poor operational practices and inappropriate fuel exacerbate the detrimental health effects of these devices. The purpose of these regulations is to minimize the human health hazards resulting from the smoke and noxious fumes emitted by Outdoor Hydronic Heaters, and to encourage proper technique in using and setting these boilers.

Section 3: Outdoor Hydronic Heaters- Applicability.

This regulation applies to any person who owns or operates, or intends to own or operate, an Outdoor Hydronic Heater for use in the Town of Sudbury except Outdoor Hydronic Heaters rated with a heat input of 1 MMBtu/hr or greater which are subject to the Comprehensive Plan Application provisions at 310 CMR 7.02(5)(a)4.

Operators of existing OHH installed prior to the effective date of this regulation wishing to continue using a Outdoor Hydronic Heater must apply for a permit from the Board of Health within six months of the effective date of this regulation.

Section 4: Definitions.

The following words and phrases shall have the following meanings,

Clean wood means wood that has no paint, stains, or other types of coatings, and wood that has not been treated with, including but not limited to, copper chromium arsenate, creosote, or pentachlorophenol.

Commercial-size Outdoor Hydronic Heater means a heater with a rated thermal output greater than 350,000 Btu/hr and a heat input design capacity less than 1 MMBtu/hr as rated by the test method identified in 310 CMR 7.26(54)(c)2.

Existing unit or Existing Outdoor Hydronic Heater means an Outdoor Hydronic Heater that is sold, installed and/or operated at the intended location of use prior to the effective date of this Regulation.

Heating season means the period beginning October 1 and ending April 15 inclusively.

Opacity means the degree to which emissions other than water reduce the transmission of light and obscure the view of an object in the background as measured by EPA Method 9.

Outdoor Hydronic Heater or heater means a fuel burning device designed to (1) burn wood or other approved solid fuels; (2) that the manufacturer specifies for outdoor installation or installation in structures not normally occupied by humans (e.g., garages); and (3) heats building space and/or water via the distribution, typically through pipes, of a fluid heated in the device, typically water or a water/antifreeze mixture.

Operator means any person who owns or operates an Outdoor Hydronic Heater in the Commonwealth.

Residential-size Outdoor Hydronic Heater means a heater with a rated thermal output of 350,000 Btu/hr or less as rated by test method identified in 310 CMR 7.26(54)(c)2.

Section 5: Requirements for Operators

(a) On and after the effective date of this regulation **no** person shall:

1. Purchase, install or allow the installation of any Outdoor Hydronic Heater unless it has been certified in accordance with this regulation to meet the applicable emission standard set forth in this regulation.
2. Site or install an Outdoor Hydronic Heater (OHH) that meets the applicable emission standards of this regulation unless it is installed according to the following. The replacement of an obsolete OHH shall be considered a new installation and meet all requirements of a new installation.

2.1. Residential-size Outdoor Hydronic Heater

- At least 150 feet from any property line
- At least 300 feet from any occupied dwelling or building that it is not serving,
- Has a clear radius of 50 feet, which must be maintained between the Outdoor Hydronic Heater and any trees or vegetation of a height greater than the height of the top of the fuel door.

2.2. Commercial-size Outdoor Hydronic Heater

- At least 300 feet from any property line
 - At least 500 feet from any occupied dwelling or building that it is not serving,
 - Has a clear radius of 50 feet, which must be maintained between the Outdoor Hydronic Heater and any trees or vegetation of a height greater than the height of the top of the fuel door.
- (b) Existing Units– All operators of existing Outdoor Hydronic Heaters shall comply with the requirements at Section 5(c) through Section 5(i) inclusively.
- (c) Seasonal limitations: No person shall cause, suffer, allow or permit the operation of an Outdoor Hydronic Heater from April 16 to September 29.
- (d) Prohibited fuels: No person shall cause, suffer, allow or permit the burning of any of the following items in an Outdoor Hydronic Heater:
1. Any wood that does not meet the definition of clean wood;
 2. garbage;
 3. tires;
 4. lawn clippings, leaves, brush trimmings, or general yard waste;
 5. materials containing asbestos;
 6. materials containing lead, mercury, or other heavy or toxic metals;
 7. materials containing plastic;
 8. materials containing rubber;
 9. waste petroleum products;
 10. paints and paint thinners;
 11. chemicals;
 12. coal;
 13. glossy or colored papers;
 14. construction and demolition debris;
 15. plywood;
 16. particleboard;
 17. salt water driftwood and other previously salt water saturated materials;
 18. manure;
 19. animal carcasses; and
 20. asphalt products.
- (e) Allowable fuels: No person that operates an Outdoor Hydronic Heater shall cause, suffer, allow or permit the use of a fuel other than the following:
1. Clean dry wood;
 2. Wood pellets made from clean wood;

3. Home heating oil in compliance with the applicable sulfur content limit or natural gas may be used as starter fuels for dual-fired Outdoor Hydronic Heaters; and
4. Other biomass fuels as approved by the Department of Environmental Protection.

(f) Visible Emission Standard

1. No person shall cause, suffer, allow or permit the emission of air contaminants from any residential-size or commercial-size Outdoor Hydronic Heater to exceed an average of 20 percent opacity for two minutes in any one-hour period.
2. No person shall cause, suffer, allow or permit the emission of air contaminants from any commercial-size Outdoor Hydronic Heater to exceed at any time 40 percent opacity for the first 6 minutes during the startup period of a new fire. For the remainder of the startup period no person shall cause or allow the emission of air contaminants from any Outdoor Hydronic Heater to exceed a 20 percent opacity standard in any consecutive two minute average period. This only applies to the initial firing of the unit where no coal bed exists and does not apply to refueling.

(g) No person shall cause, suffer, allow or permit the operation of any Outdoor Hydronic Heater except in conformance with the manufacturer's operating and maintenance instructions.

(h) No person shall cause, suffer, allow or permit the operation of an Outdoor Hydronic Heater in such a manner as to create a condition of air pollution as defined in 310 CMR 7.00.

(i) Enforcement: An operator of an Outdoor Hydronic Heater shall comply with all applicable regulations, and state and local laws, including but not limited to local ordinances. Operators are subject to the enforcement provisions specified here in.

(j) Variances: The Board of Health may grant a variance from the requirements of Section 5(c) for an Outdoor Hydronic Heater that meets the standard set forth in Section 5(a) 1, if in its opinion the Board of Health finds that:

1. Granting such a variance would have no significant deleterious effect on public health and meets all applicable provisions of 310 CMR 7.26(50)-(54).

The variance request shall be made in writing and shall be subject to a public hearing before the Board of Health. The requesting party shall, at their sole expense, notify all property owners within 400 feet of their property boundary by certified mail at least ten days prior to the public hearing.

Section 6: Particulate Matter Emission Standards

(a) Residential-size Outdoor Hydronic Heaters

Emission Standard – On and after the effective date of this regulation, no person shall install or allow for installation a residential-size Outdoor Hydronic Heater for use in the Town of Sudbury unless it has been certified to meet a particulate matter emission limit of 0.32 pounds per million British thermal units (lb/MMBtu) heat output. As defined by EPA Test Method 28 OWHH.

(b) Commercial-size Outdoor Hydronic Heaters

Emission Standard – On and after the effective date of this regulation, no person shall install or allow for installation a commercial-size Outdoor Hydronic Heater for use in the Town of Sudbury unless it has been certified to meet a particulate matter emission limit of 0.32 pounds per million British thermal units (lb/MMBtu) heat output. As defined by EPA Test Method 28 OWHH.

Section 7: Labeling:

On and after the effective date of this regulation no person shall install or allow for installation an Outdoor Hydronic Heater in the Town of Sudbury without a US EPA permanent label indicating it has met the .32 lb/MMBtu requirement, or supply other documentation from an EPA approved lab showing that it meets the requirement as defined by EPA Test Method 28 OWHH.

Section 8: Permits

- (a) The application for a permit for an Outdoor Hydronic Heater shall be made on a form provided by the Sudbury Board of Health and will include a suitable plan of the Outdoor Hydronic Heater.
- (b) A permit fee is due upon application submission.
- (c) For existing Outdoor Hydronic Heaters an informal plan depicting the location of the Outdoor Hydronic Heater in relation to property lines and the building it serves and all buildings within 400 feet. All buildings must be labeled as to their use (example storage, occupied, unoccupied, etc...)
- (d) For new installations of a Outdoor Hydronic Heater in which the setbacks from property lines and other occupied dwellings are 2 times greater than required, an informal plan depicting the location of the Outdoor Hydronic Heater in relation to property lines and the building it serves and all buildings within 500 feet and their heights. All buildings must be labeled as to their use (example storage, occupied, unoccupied, etc...)

- (e) For new installations of a Outdoor Hydronic Heater in which the setbacks from property lines and other occupied dwellings are less than 2 times greater than required, two sets of plans for the location and installation of the Outdoor Hydronic Heater shall bear the stamp of a Massachusetts Professional Engineer or Massachusetts Registered Professional Land Surveyor and shall be drawn at a suitable scale (one inch = 40 feet or fewer for plot plans and one inch= 20 feet or fewer for details of furnace components) and shall include a depiction of:
1. The legal boundaries of the lot to be served.
 2. The location of all dwelling(s) and building(s) existing and proposed on the lot to be served by the Outdoor Hydronic Heater and identification of those to be served.
 3. The location of all utilities on the lot to be served, including but not limited to, water lines, sewer lines, and gas lines.
 4. The location of all known easements and rights of way on lot to be served.
 5. The location of all components of the Outdoor Hydronic Heater, including underground electric lines, fluid lines or ductwork.
 6. The proposed wood/fuel storage location.
 7. The proposed Outdoor Hydronic Heater stack height.
 8. The location of all roads, pass ways and rights-of way within 500 feet of the proposed Outdoor Hydronic Heater.
 9. The location of all dwelling(s) and building(s) within 500 feet of the proposed Outdoor Hydronic Heater.
 10. The roof heights of all buildings within 500 feet of the existing of the proposed Outdoor Hydronic Heater.
- (f) It is the responsibility of the applicant to obtain any other permits as required by but not necessarily limited to Building Department, Electrical Inspector, Plumbing Inspector and Fire Department.

Section 9: Enforcement and Remedies

- (a) If an inspection or examination reveals an Outdoor Hydronic Heater is installed or operated in a manner that is not compliant with the above regulations, the Board of Health is authorized to issue notices of violation, cease and desist orders, and other administrative enforcement orders to compel compliance with these regulations.
- (b) If an inspection or examination determines that an Outdoor Hydronic Heater is operated in a manner that constitutes a threat to public health, safety, welfare, a nuisance or cause of odor, filth or sickness, in accordance with MGL Chapter 111, the Board of Health or its agent shall issue an order to cease operation of the Outdoor Hydronic Heater.

- (c) The Board of Health may take enforcement action deemed appropriate and lawful, including but not limited to criminal prosecution, and/or civil action for injunctive relief and/or money damages. Violations of any order, rule or regulation adopted under the provisions of M.G.L. Chapter 111, Section 31C shall be punished, for first offence, by a fine of not less than fifty dollars nor more than one hundred dollars and for a subsequent offence, by a fine of not less than two hundred dollars nor more than five hundred dollars. Each day or part thereof of violation of such order, rule or regulation whether such violation be continuous or intermittent, shall be construed as a separate and succeeding offence.

Section 10: Severability

If any provision of these regulations is declared invalid or unenforceable, the other provisions shall not be affected thereby but shall continue in full force and effect.

Section 11: Adoption

These rules and regulations were adopted by unanimous vote of the Board of Health of the Town of Sudbury on April 26, 2011 and are in full force and effect from the date of publication in a newspaper distributed in this town and a copy thereof shall be deposited in the office of the Town Clerk. Revisions adopted by unanimous vote of the Board of Health of the Town of Sudbury on September 6, 2011 and are in full force and effect from the date of publication in a newspaper distributed in this town and a copy thereof shall be deposited in the office of the Town Clerk.

Board of Health:

Brian J. McNamara, Chairman

Carol J. Bradford, Member

Linda M. Huet-Clayton, Member