

**Notes From the Commish**  
**Solid Fuel-Fired Appliances**  
**The pellets are coming by the ton, the ton...**

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As the price of heating with petroleum based products climbs, your family may be considering alternate fuels for comfort heating of your home. Since January 2008, the Department of Inspectional Services has seen a marked increase in the number of permits and inquiries for the proper installation of solid fuel-fired appliances.

The Massachusetts State Building Code (780 CMR), § 6007 states “Solid fuel-fired appliances employed for comfort heating include, but are not limited to, room heaters and stoves, fireplace inserts, furnaces and boilers; additionally, the fuel for such appliances includes, but is not limited to: wood and wood pellets, coal and various other solid fuels such as nut shells and corn, etc.”

The Building inspection office has not seen anyone trying to burn corn or nuts, (I suppose the nuts the code speaks of are; walnuts or horse nuts, not crazy Uncle \_\_\_\_), but we have inspected numerous pellet stoves and what most would call woodstoves, event though they are made of metal, both free standing and inserted into existing fireplaces.

The most popular question relating to solid fuel-fire appliances are; “Do I need a permit?” the answer is “**Yes**”, and “What are the clearances for my \_\_\_\_ stove?” to which the answer is “**It depends.**” Depends on what you say, the answer is the manufacturers instructions, which are based on the testing of an independent listing agency. The most well known listing agency is U.L. or Underwrites Laboratories, also Warner Hersey and Factory Mutual to name three.

Section 6007.2 of 780 CMR spells out in detail to what standard the appliances are tested to and what information has to be on the appliance, including the clearance distance to combustible materials from all six sides of the unit and the connector pipe. So for the manufacture to be able to affix a plate with the previously mentioned installation clearances, the manufacturer takes a representative sample to the listing agency and pays to have the appliance tested. The testing agency will certify what the manufacturer has said are the proper installation clearances for safe operation of the stove in various configurations.

So the simple answer is if you have procured a new or used solid fuel-fire appliance, it is installed accordance with the manufacture's instructions, which will need to be on site at the time of the inspection. If you are buying a used appliance it must have a listing plate affixed to the appliance and have the installation instructions available at the time of inspection. If there are no instructions available, go online to the manufacturers website and hope you can find the instruction there or a way to contact the manufacturer for the installation instructions.

If a new appliance lacks the manufacturer's instructions and/or a listing agency label on the appliance, the appliance can not be installed in Massachusetts. For used appliances that predate the 1997 listing requirements of the code, you may use § 6007.11 for guidance, these require 36 inches of clearance to all combustible material from the appliance.

The appliance must be vented in accordance with the manufactures instructions. Care should be taken to keep the vent pipe the required distance from combustible material and not to exceed the total allowed vent pipe length. Also the termination point and method must be correctly done so no water enters the flue pipe nor is it to close to a window or other fresh air intake for the home. Because turns and bends have more resistance to the way flue gasses travel, those bends are usually equal to five or more feet of straight pipe.

Chimneys whether masonry or metal are limited to one solid fuel-burning appliance and may not share the same flue or pipe as another appliance or a fossil fuel-burning appliance. Additionally the flue size for the appliance must be of the correct size according to the manufacturers instructions. If the new appliance is a fireplace insert the existing flue can not be more that three

times the area of the connection, the connection needs to be sealed from the lower portion of the chimney and there must be a way to clean and inspect the chimney.

Before the solid fuel-fired appliance is installed, obtain a permit from the Department of Inspectional Services, currently the fee is thirty five (35.00) dollars per stove, payable when the permit is ready for pick up.

Outdoor wood fired boilers are not universally regulated at this time, some municipalities have enacted regulations requiring permitting and installation requirements for outdoor boilers, however the Town of Charlton has not. The Massachusetts Department of Environmental Protection has some regulations relating to air pollution and smoke generation that are enforced by the local Board of Health.

Currently the Massachusetts Department of Environment Protection (DEP) is in the public hearing phase of adopting regulations pertaining to the amount of particulate matter and location of outdoor wood boilers, possible taking effect October 1, 2008. More information can be found on the DEP website for 310 CMR § 7 which is the proposed regulations.

For vented gas heaters a permit is required from the Gas Inspector Peter Starkus, those permit applications are available outside the Department of Inspectional Services office. For an unvented gas heater the permit is from the Fire Department, with inspections by both the Fire Department and the Gas Inspector.

**Notes:**

The Massachusetts State Building code Solid Fuel Burning Appliance section is available on line at: <http://www.mass.gov/Eeops/docs/dps/BuildingCode7th/780060.pdf>

This is not the official version of the code, but is very close. For the readers convenience quotations and relevant sections of the code are annotated in parentheses (§ xx.x) with in the article.

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