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Masonry Heaters and the Law

by Norbert Senf

Masonry heaters can trace their lineage back to antiquity in many of the world's colder regions. In North America, however, they are a recent phenomenon. Even though they are very safe and burn extremely cleanly, they are somewhat of a grey area for regulatory authorities.

If you are building a masonry heater, you typically will have to deal with your building inspector and also with your insurance company. The insurance company will usually want to know that you are installing a "listed appliance", and/or that you have a building permit.

A listed appliance carries a tag from a recognized testing laboratory stating that it has been safety tested for clearances to combustibles in accordance with the applicable U.L. (Underwriters' Laboratories) standards. The clearances will be spelled out on the tag.

Listing is possible with factory-made heaters, but not practical for site-built units. These fall under the building code, which carries provisions for clearances to combustibles for masonry fireplaces and chimneys. The building code allows the local authority to recognize a masonry heater as "equivalent to" a masonry fireplace.

An increasing number of code authorities now recognize masonry heaters specifically. The new International Residential Code (I.R.C.) is currently effective statewide in 27 U.S. states, and used at a local level in another 11 states. Eventually, this code will replace the various existing codes in all 50 states. The IRC extends the masonry fireplace and chimney sections of the codes with a masonry heater section. It

carries some seismic provisions, and then references the provisions of ASTM 1602 E - 01 "Standard Guide for Construction of Solid Fuel Burning Masonry Heaters".

Code provisions for masonry fireplaces and masonry heaters typically specify the following:

Clearances to combustibles from:

- The firebox opening
- Cleanouts
- The masonry itself

Materials and minimum thicknesses for:

- The firebox
- A non-combustible hearth extension
- Other surfaces

If a prefabricated non-masonry chimney will be used, a U.L. listed "anchor plate" is required to make the connection from masonry to metal.

In 1983, a group of heater masons and other interested parties formed a trade association, the Masonry Heater Association of North America (MHA). One of the main reasons for forming the association was to address the building code question. This is being done as a task group under the auspices of ASTM, which is the world's largest consensus standards organization.

ASTM E 1602 - 1 "Standard Guide for the Construction of Solid Fuel Burning Masonry Heaters" builds on the code requirements for masonry fireplace and tightens them up for application to masonry heaters. For example, clearances to combustibles are doubled from 2 inches to 4 inches.

The Masonry Heater Association also conducts ongoing training for members, and has developed a heater mason certification program that adheres to a strict set of published standards.