



BBS MEMO

Ohio Board of Building Standards

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FIREPLACE DOOR REQUIREMENTS IN THE NEW 2013 RESIDENTIAL CODE OF OHIO (RCO)

CURRENT RCO LANGUAGE

Since the publication of the new RCO, the Board has received numerous inquiries about the new energy efficiency requirements for fireplaces.

A brand new section was added to all three compliance options found within the 2013 RCO, Chapter 11, Energy Efficiency chapter of the RCO, as follows:

1. 2009 International Energy Conservation Code (IECC) Section 402.4.3:
Fireplaces. New wood-burning fireplaces shall have gasketed doors and outdoor combustion air.
2. RCO Section 1102.4.3: Same language as in the IECC
3. RCO Section 1105.2.4.3: Same language as in the IECC

The requirement for bringing in outdoor combustion air for the wood-burning fireplace is not new (see 2006 RCO Section 1005 and 2013 RCO Section 1006). The new gasketed door requirement, however, has created an implementation problem. From an energy conservation perspective, it seems to make sense to require the "hole" caused by a fireplace opening in the building thermal envelope to be sealed to reduce air leakage.

THE PROBLEM

Unfortunately, the code change proponent and the International Code Council (ICC) voting membership likely did not foresee and consider the safety consequences and possible conflict created with this 2009 model code language. While this requirement makes sense for masonry wood-burning fireplaces, this requirement could jeopardize the safety of some factory-built wood-burning fireplaces. Factory-built wood-burning fireplaces are regulated under the 2013 RCO Section 1004. As such, these appliances are required to be tested in accordance with UL 127, listed and labeled and installed in accordance with the manufacturer's installation instructions and the listing. As a condition of the listing, some of these listed devices are prohibited from installing gasketed doors because doing so could result in excessive heat build-up within the firebox and/or factory-built chimney. If doors are installed on a wood-burning factory-built fireplace that has not been tested and listed with doors, the listing of the fireplace could be violated and a fire hazard could be created.

MODEL CODE CHANGES

When jurisdictions around the country started enforcing the 2009 model code requirement for gasketed fireplace doors, the fireplace industry quickly reacted. The ICC membership responded by changing the model code language in the 2012 IECC to read as follows:

2012 IECC Section 402.4.2: **Fireplaces.** New wood-burning fireplaces shall have tight-fitting flue dampers and outdoor combustion air.

A new code change proposal, RE86-13, heard last month at the 2015 ICC code development hearings in Dallas, proposes to further refine the IECC language as follows:

Proposed 2015 IECC Section 402.4.2: **Fireplaces.** New wood-burning fireplaces shall have tight-fitting flue dampers or doors, and outdoor combustion air. When using tight-fitting doors on factory built fireplaces listed and labeled in accordance with UL 127, the doors shall be tested and listed for the fireplace. When using tight-fitting doors on masonry fireplaces, the doors shall be listed and labeled in accordance with UL 907.

THE SOLUTION

The Residential Construction Advisory Committee (RCAC) has been advised of this issue and is currently considering recommending a change to the RCO. Any change, if recommended by the RCAC and adopted by the Board of Building Standards, will not go into effect until early 2014.

In the meantime, until the Ohio code language can be clarified, we recommend that builders, contractors, and owners work closely with fireplace dealers/manufacturers to ensure that they are specifying new wood-burning fireplaces that meet the intent of the energy conservation code (by sealing the openings in the thermal envelope of the home) and that do not compromise the safety of a factory-built wood-burning fireplace by adding gasketed doors or tight-fitting dampers that may violate its listing.

We also recommend that the building officials liberally construe this code language, as required in RCO Section 101.4. The code official should work with the builder/contractor/owner to approve a proposed solution that meets the intent of the energy conservation code and also meets the safety requirements of the RCO. The building official should not prohibit the use of wood-burning fireplaces and should never insist that gasketed doors be added to a factory-built wood-burning fireplace that is not listed for use with doors. If a practical solution cannot be reached, then the building official should simply issue an adjudication order, in accordance with RCO Section 109, and allow the owner the right to appeal this energy code requirement. Safety should never be compromised for the sake of energy conservation.

If you have further questions regarding the fireplace requirements in the RCO, please call the Board's office at 614-644-2613 or E-mail to dic.bbs@com.state.oh.us.