

STATE BUILDING CODE INTERPRETATION NO. I-3-02

February 4, 2002

The following is offered in response to your letter to me in which you request a formal interpretation of section 926.1 of the 1996 International Mechanical Code and section 303.6 of the 1995 CABO One and Two Family Dwelling Code portions of the 1999 State Building Code.

Question 1: The 1996 International Mechanical Code portion of the 1999 State Building Code, at section 926.1 states "An unvented room heater shall not be used as the sole source of comfort heating in a dwelling unit." Is it acceptable to use the wording of section 926.1 for Use Group R-4 One- and Two-family dwellings since this language does not appear in CABO?

Answer 1: No. The 1996 International Mechanical Code (IMC) does not apply to Use Group R-4 One-and Two-family dwellings and its requirements therefore cannot be applied to such dwellings.

Question 2: Is it the intention of section 303.6 of the 1995 CABO One and Two Family Dwelling Code portion of the 1999 State Building Code to allow the use of unvented gas fired room heaters as the sole source of heat in a non-owner occupied rental dwelling?

Answer 2: First let me make it clear that the 1995 CABO Code does not differentiate between owner occupied dwellings and non-owner occupied rental units. The answer to this question therefore is based on the requirements of the code, regardless of who occupies the dwelling unit. That having been said, the answer to your question is yes, but only under certain circumstances. The CABO Code does not contain the prohibition against the use of "**an** unvented room heater" as the sole source of comfort heating in a dwelling unit that is found in section 926.1 of the 1996 IMC, which does not pertain to Use Group R-4 dwellings constructed under the CABO Code, but does pertain to other Use Groups containing dwelling units. I emphasize the word "an" in the phrase "**an** unvented room heater" as found in the IMC to point out that the intent of that prohibition is to disallow a single unvented room heater as the source of comfort heating in place of a central system. The rationale being that proper distribution of the heat throughout the dwelling unit is unlikely with a single unvented room heater. The wording of the 1996 IMC does not preclude the utilization of a system of multiple unvented room heaters to provide comfort heating in a dwelling unit.

The CABO Code, at section 303.6 requires heating facilities capable of maintaining a room temperature of 68 degrees F at a point 3 feet above the floor at the design temperature in **all** habitable rooms. If a system of multiple unvented room heaters installed in accordance with manufacturer's installation instructions and the appliance's listing is capable of doing this, the CABO Code does not prohibit it.

Keep in mind, however, that NFPA 54-1996, which is referenced by the Connecticut Gas Equipment and Piping Code, which applies to one- and two-family dwellings as well as other buildings and is enforced by the local fire marshal, contains a prohibition at section 6.24.1 against unvented room heaters in bathrooms and bedrooms. If it is impossible to install an unvented room heater in bedrooms and bathrooms, it is unlikely that the heating requirements found in the State Building Code can be met due to distribution problems. However, exceptions 1 and 2 to section 6.24.1 allow the authority having jurisdiction (in this case the local fire marshal) to permit the installation of limited size unvented room heaters equipped with an oxygen depletion safety shutoff system in bedrooms and bathrooms meeting the combustion and ventilation air requirements of section 6.1 (b) of NFPA 54-1996. If the local fire marshal as the authority having jurisdiction approves such installations, it is possible that a system of multiple unvented room heaters will be able to meet the requirements of the CABO Code as the

sole source of heat in a dwelling unit constructed under the CABO Code. It is also possible that such a system will meet the requirements of the IMC, since its prohibition is against the use of a single unvented room heater as the source of comfort heating, not against the use of multiple unvented room heaters.

It is especially important to verify the existence of sufficient combustion and ventilation air in any installation of an unvented fuel burning heating appliance.