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Informational Bulletin 2009-07
Carbon Monoxide Detection Devices in Dwellings

Purpose

The purpose of this informational bulletin is to clarify the requirements of RSA 153:10-a, as they apply to carbon monoxide detectors, and to provide guidance as to its implementation. This statute becomes effective on January 1, 2010.

Explanation

Section I of the statute requires that a carbon monoxide detection device (CMD) be installed in "each unit". A multi-unit dwelling is defined as:

"any structure ... which contains 2 or more single units which provide permanent or transient living facilities which may or may not include cooking and eating facilities, for one or more persons. This term shall include but not be limited to: rooming houses, dormitories, motels, hotels, apartment buildings, buildings which contain condominium units, duplexes, and houses; provided, however, that such buildings contain 2 or more units."

Section II, requires that each "single family dwelling" that is newly constructed or substantially rehabilitated after January 1, must be equipped with a CMD. Substantial rehabilitation is defined as:

"any improvement to a building or single family dwelling which is valued at an amount greater than 1/2 of the assessed valuation of the building or dwelling." Note that this is the assessed value (the value on which the property taxes are based) not the resale value of the property.

A CMD must be installed in every rental unit. A rental unit is defined as:

"any residential unit in a building or single family dwelling which provides permanent or transient living facilities for one or more persons, which is occupied by tenants on a rental basis. This term shall include but not be limited to: hotels, motels, dormitories, apartments, duplex units, rooms rented out of the home of another, and single family dwellings, so long as they are rented."

Locations

NFPA 720, Standard for the Installation of Carbon Monoxide Detection and Warning Equipment and The International Residential Code address the location of carbon monoxide detectors. Detectors should be installed outside of each separate sleeping area in the immediate area of the bedrooms.

Compliance Dates.

RSA 153:10-a will become effective on January 1, 2010 for new construction. Administrative rules for this statute are being proposed for existing construction. In the rulemaking process, the Division will be recommending a two-year phase in process for implementation for existing construction.

the *addition* of a porch or deck, are exempt from the requirements of this section.

2. Installation, *alteration* or repairs of plumbing or mechanical systems are exempt from the requirements of this section.

R314.4 Power source. Smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. Smoke alarms shall be interconnected.

Exceptions:

1. Smoke alarms shall be permitted to be battery operated when installed in buildings without commercial power.
2. Interconnection and hard-wiring of smoke alarms in existing areas shall not be required where the *alterations* or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an *attic*, crawl space or *basement* available which could provide access for hard wiring and interconnection without the removal of interior finishes.

SECTION R315 CARBON MONOXIDE ALARMS

R315.1 Carbon monoxide alarms. For new construction, an approved carbon monoxide alarm shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in *dwelling units* within which fuel-fired *appliances* are installed and in dwelling units that have attached garages.

R315.2 Where required in existing dwellings. Where work requiring a *permit* occurs in existing *dwellings* that have attached garages or in existing dwellings within which fuel-fired *appliances* exist, carbon monoxide alarms shall be provided in accordance with Section R315.1.

R315.3 Alarm requirements. Single station carbon monoxide alarms shall be listed as complying with UL 2034 and shall be installed in accordance with this code and the manufacturer's installation instructions.

SECTION R316 FOAM PLASTIC

R316.1 General. The provisions of this section shall govern the materials, design, application, construction and installation of foam plastic materials.

R316.2 Labeling and identification. Packages and containers of foam plastic insulation and foam plastic insulation components delivered to the job site shall bear the *label* of an *approved agency* showing the manufacturer's name, the product listing, product identification and information sufficient to determine that the end use will comply with the requirements.

R316.3 Surface burning characteristics. Unless otherwise allowed in Section R316.5 or R316.6, all foam plastic or foam plastic cores used as a component in manufactured assemblies used in building construction shall have a flame spread index of not more than 75 and shall have a smoke-developed index of not more than 450 when tested in the maximum thickness intended for use in accordance with ASTM E 84 or UL 723. Loose-fill type foam plastic insulation shall be tested as board stock for the flame spread index and smoke-developed index.

Exception: Foam plastic insulation more than 4 inches (102 mm) thick shall have a maximum flame spread index of 75 and a smoke-developed index of 450 where tested at a minimum thickness of 4 inches (102 mm), provided the end use is *approved* in accordance with Section R316.6 using the thickness and density intended for use.

R316.4 Thermal barrier. Unless otherwise allowed in Section R316.5 or Section R316.6, foam plastic shall be separated from the interior of a building by an *approved* thermal barrier of minimum $\frac{1}{2}$ inch (12.7 mm) gypsum wallboard or an *approved* finish material equivalent to a thermal barrier material that will limit the average temperature rise of the unexposed surface to no more than 250°F (139°C) after 15 minutes of fire exposure complying with the ASTM E 119 or UL 263 standard time temperature curve. The thermal barrier shall be installed in such a manner that it will remain in place for 15 minutes based on NFPA 286 with the acceptance criteria of Section R302.9.4, FM 4880, UL 1040 or UL 1715.

R316.5 Specific requirements. The following requirements shall apply to these uses of foam plastic unless specifically *approved* in accordance with Section R316.6 or by other sections of the code or the requirements of Sections R316.2 through R316.4 have been met.

R316.5.1 Masonry or concrete construction. The thermal barrier specified in Section R316.4 is not required in a masonry or concrete wall, floor or roof when the foam plastic insulation is separated from the interior of the building by a minimum 1-inch (25 mm) thickness of masonry or concrete.

R316.5.2 Roofing. The thermal barrier specified in Section R316.4 is not required when the foam plastic in a roof assembly or under a roof covering is installed in accordance with the code and the manufacturer's installation instructions and is separated from the interior of the building by tongue-and-groove wood planks or wood structural panel sheathing in accordance with Section R803, not less than $\frac{15}{32}$ inch (11.9 mm) thick bonded with exterior glue and identified as Exposure 1, with edges supported by blocking or tongue-and-groove joints or an equivalent material. The smoke-developed index for roof applications shall not be limited.

R316.5.3 Attics. The thermal barrier specified in Section R316.4 is not required where all of the following apply:

1. *Attic* access is required by Section R807.1.
2. The space is entered only for purposes of repairs or maintenance.