

## §RR313

### SMOKE ALARMS, AUTOMATIC SPRINKLER SYSTEMS AND CARBON MONOXIDE ALARMS

**§RR313.1 [F] Smoke alarms.** Smoke alarms shall be installed in the following locations:

1. In each sleeping room.
2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

When more than one smoke alarm is required to be installed within an individual dwelling unit the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

**Exception:** Interconnection is not required where smoke alarms are permitted to be battery operated in accordance with §RR313.1.2.

All smoke alarms shall be listed and installed in accordance with the provisions of this code and the household fire warning equipment provisions of NFPA 72.

**§RR313.1.1** Existing buildings undergoing repair, alteration, change of occupancy, addition or relocation shall be provided with smoke alarms as required by Appendix RJ.

**§RR313.1.2 [F] Power source.** In new construction, the required smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, or an on-site electrical power system 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 permitted to be battery operated when installed in buildings without commercial power or an on-site electrical power system or in buildings that undergo repair, alteration, change of occupancy, addition or relocation in accordance with Appendix RJ.

**§RR313.2 Combination smoke and carbon monoxide alarms.** Combination smoke and carbon monoxide alarms are permitted, provided the alarm is listed for such use. Combination smoke and carbon monoxide alarms shall have distinctly different alarm signals for smoke or carbon monoxide alarm activation.

**§RR313.3 Automatic sprinkler systems.** Buildings having a height of three stories above a basement shall be equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13D.

**§RR313.3.1 Existing dwellings.** Alterations to an existing attic which create a building height of three stories above a basement shall be permitted in conformance with §RR604.3.

**§RR313.4 Carbon monoxide alarms.** Carbon monoxide alarms shall be installed in the following locations:

**Exception:** Conformance with this section is not required where fuel-fired appliances and equipment, solid-fuel burning appliances and equipment, fireplaces, or motor-vehicle-related occupancies are not located within the structure.

1. Within each dwelling unit on any story having a sleeping area.
2. On any story of a dwelling unit where fuel-fired appliances and equipment, solid-fuel burning appliances and equipment, fireplaces or attached garages are located. A carbon monoxide alarm installed on any story of a dwelling unit having a sleeping area

shall suffice for that story where fuel-fired appliances and equipment, solid-fuel burning appliances and equipment, fireplaces or attached automotive parking garages are also located.

When more than one carbon monoxide alarm is required to be installed within an individual dwelling unit, the alarms shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

**Exception:** Interconnection is not required where carbon monoxide alarms are permitted to be battery operated in accordance with §RR313.4.3.

All carbon monoxide alarms shall be listed and labeled as complying with UL 2034 or CAN/CSA 6.19, and shall be installed in accordance with the manufacturer's installation instructions and this code.

**§RR313.4.1 Prohibited locations.** Carbon monoxide alarms shall not be located within or near the openings to garages, bathrooms or furnace rooms. Carbon monoxide alarms shall also not be located in or near locations specified in the manufacturer's installation instructions.

**§RR313.4.2 Existing buildings.** Carbon monoxide alarms shall be installed in existing buildings undergoing repair, alteration, change of occupancy, addition or relocation as required by Appendix RJ.

**§RR313.4.3 Power source.** In new construction, the required carbon monoxide alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source or an on-site electrical power system, 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. Carbon monoxide alarms shall be permitted to be battery operated when installed in buildings without commercial power or an on-site electrical power system or in buildings that undergo repair, alteration, change of occupancy, addition or relocation in accordance with Appendix RJ.