

**SECTION 610
CARBON MONOXIDE ALARMS**

610.1. General. Section 610 covers the application, installation, performance and maintenance of carbon monoxide alarms and carbon monoxide detectors, and their components, in new and existing one-and two-family dwellings; multiple single-family dwellings (townhouses); buildings owned as condominiums or cooperatives and containing dwelling units; bed and breakfast dwellings; and other buildings and structures which contain one or more dwelling units, sleeping units or sleeping areas and which are classified, in whole or in part, in one or more of the following occupancy Groups: E, 1-1, 1-2 (except hospitals), 1-4, R-1, R-2, R-3 or R-4. Carbon monoxide alarms (or, where permitted, carbon monoxide detectors) shall be provided in all new and existing buildings and structures described in Section 610.1, without regard to the date of construction of the building or structure and without regard to whether such building or structure shall or shall not have been offered for sale. Carbon monoxide alarms (or, where permitted, carbon monoxide detectors) shall be installed, operated and maintained in accordance with the provisions of Section 610 or, in the alternative, in accordance with the provisions of NFPA 720.

Exception: Carbon monoxide alarms and/or carbon monoxide detectors shall not be required in a building or structure that contains no carbon monoxide source.

610.2. Definitions. For the purposes of this Section 610, the following terms shall have the following meanings:

Carbon monoxide alarm. A single or multiple-station device that has (1) a sensor capable of detecting the presence of carbon monoxide and (2) an alarm that sounds when carbon monoxide is detected.

Carbon monoxide detector. A device that (1) has a sensor capable of detecting the presence of carbon monoxide and (2) is connected to an alarm control unit that sounds an alarm when carbon monoxide is detected.

Carbon monoxide source. Any appliance, equipment, device or system that may emit carbon monoxide (including, but not limited to, fuel fired furnaces; fuel fired boilers; space heaters with pilot lights or open flames; kerosene heaters; wood stoves; fireplaces; and stoves, ovens, dryers, water heaters and refrigerators that use gas or liquid fuel), garages, and other motor vehicle related occupancies.

Dwelling unit. A single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and

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sanitation. Dwelling units include, but are not limited to, one-family dwellings, each unit in a two-family dwelling, each unit in a multiple single-family dwelling (townhouse), bed and breakfast dwellings, apartments, and dormitory suites having living areas, bedrooms, bathrooms and kitchens.

Sleeping area. A room or space that can be used, either on an occasional or permanent basis, for sleeping. Sleeping areas include, but are not limited to, bedrooms and places where children sleep in a daycare facility.

Sleeping unit. A room or space in which people sleep, which can also include permanent provisions for living, eating, and either sanitation or kitchen facilities but not both. Such rooms and spaces that are also part of a dwelling unit are not sleeping units. Sleeping units include, but are not limited to, dormitory suites with living areas, bedrooms and bathrooms.

610.3. Required locations. Carbon monoxide alarms shall be provided in the locations determined pursuant to Section 610.3.

Exceptions:

1. Where coverage at a location is required by more than one provision of Section 610.3, providing one carbon monoxide alarm at such location shall be deemed to satisfy all such provisions.
2. In lieu of a carbon monoxide alarm, a carbon monoxide detector may be provided at any location where coverage is required, provided that such carbon monoxide detector is part of a system that causes an alarm to sound at such location when carbon monoxide is detected at such location.

610.3.1. One- Family Dwellings.

610.3.1.1. Buildings constructed on or after January 1, 2008.

610.3.1.1.1. A carbon monoxide alarm shall be provided on each story containing a sleeping area, within 15 feet of the sleeping area. More than one carbon monoxide alarm shall be provided where necessary to assure that no sleeping area on such story is more than 15 feet away from a carbon monoxide alarm.

610.3.1.1.2. A carbon monoxide alarm shall be provided on each story that contains a carbon monoxide source.

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610.3.1.2. Buildings constructed prior to January 1, 2008. A carbon monoxide alarm shall be provided on the lowest story containing a sleeping area, within 15 feet of the sleeping area. More than one carbon monoxide alarm shall be provided where necessary to assure that no sleeping area on such story is more than 15 feet away from a carbon monoxide alarm.

610.3.2. Two-family dwellings, multiple single-family dwellings (townhouses), and buildings owned as condominiums or cooperatives and containing dwelling units.

610.3.2.1. Buildings constructed on or after January 1, 2008. Within each dwelling unit:

610.3.2.1.1. A carbon monoxide alarm shall be provided on every story containing a sleeping area, within 15 feet of the sleeping area. More than one carbon monoxide alarm shall be provided where necessary to assure that no sleeping area on such story is more than 15 feet away from a carbon monoxide alarm.

610.3.2.1.2. A carbon monoxide alarm shall be provided on every story that contains a carbon monoxide source.

610.3.2.2. Buildings constructed prior to January 1, 2008. Within each dwelling unit, a carbon monoxide alarm shall be provided on the lowest story containing a sleeping area, within 15 feet of the sleeping area. More than one carbon monoxide alarm shall be provided where necessary to assure that no sleeping area on such story is more than 15 feet away from a carbon monoxide alarm.

610.3.3. Bed and breakfast dwellings and buildings and structures which (1) contain one or more sleeping areas, (2) are classified in one or more of the following occupancy Groups: E, I-2 (except hospitals), I-4, R-1, R-2, R-3 or R-4, and (3) are not covered by section 610.3.1 or section 610.3.2.

610.3.3.1. Buildings and structures constructed on or after January 1, 2008.

610.3.3.1.1. Dwelling units and sleeping units. Carbon monoxide alarms shall be provided within each dwelling unit and within each sleeping unit at the locations specified in this section 610.3.3.1.1.

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610.3.3.1.1.1. In a dwelling unit or sleeping unit that contains a carbon monoxide source, a carbon monoxide alarm shall be provided on each story that contains a sleeping area. The carbon monoxide alarm shall be located within 15 feet of the sleeping area. More than one carbon monoxide alarm shall be provided where necessary to assure that no sleeping area on such story is more than 15 feet away from a carbon monoxide alarm. In addition, a carbon monoxide alarm shall be provided within each sleeping area that contains a carbon monoxide source.

610.3.3.1.1.2. In a dwelling unit or sleeping unit which contains no carbon monoxide source, but which is located (in whole or in part) on the same story as a carbon monoxide source, a carbon monoxide alarm shall be provided on each story that contains a sleeping area. The carbon monoxide alarm shall be located within 15 feet of the sleeping area. More than one carbon monoxide alarm shall be provided where necessary to assure that no sleeping area on such story is more than 15 feet away from a carbon monoxide alarm.

610.3.3.1.1.3. In a dwelling unit or sleeping unit which contains no carbon monoxide source and which is not located (in whole or in part) on the same story as a carbon monoxide source, no carbon monoxide alarm is required.

610.3.3.1.2. Sleeping areas not located within a dwelling unit. Carbon monoxide alarms shall be provided within sleeping areas that are not located within a dwelling unit when required by this section 610.3.3.1.2.

610.3.3.1.2.1. A carbon monoxide alarm shall be provided within each sleeping area that contains a carbon monoxide source.

610.3.3.1.2.2. A carbon monoxide alarm shall be provided within each sleeping area that is located (in whole or in part) on the same story as a carbon monoxide source.

610.3.3.1.3. Stories which (1) contain a carbon monoxide source and (2) contain no dwelling unit, sleeping unit or sleeping area. A carbon monoxide alarm shall be provided on every story which (1) contains a carbon monoxide source and (2) contains no dwelling unit, sleeping unit or sleeping area.

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610.3.3.2. Buildings and structures constructed prior to January 1, 2008.

610.3.3.2.1. Dwelling units and sleeping units. Carbon monoxide alarms shall be provided within each dwelling unit and within each sleeping unit at the locations specified in this section 610.3.3.2.1.

610.3.3.2.1.1. In a dwelling unit or sleeping unit that contains a carbon monoxide source, a carbon monoxide alarm shall be provided on the lowest story that contains a sleeping area. The carbon monoxide alarm shall be located within 15 feet of the sleeping area. More than one carbon monoxide alarm shall be provided where necessary to assure that no sleeping area on such story is more than 15 feet away from a carbon monoxide alarm. In addition, a carbon monoxide alarm shall be provided within each sleeping area that contains a carbon monoxide source.

610.3.3.2.1.2. In a dwelling unit or sleeping unit which contains no carbon monoxide source, but which is located (in whole or in part) on the same story as a carbon monoxide source, a carbon monoxide alarm shall be provided on the lowest story that contains a sleeping area. The carbon monoxide alarm shall be located within 15 feet of the sleeping area. More than one carbon monoxide alarm shall be provided where necessary to assure that no sleeping area on such story is more than 15 feet away from a carbon monoxide alarm.

610.3.3.2.1.3. In a dwelling unit or sleeping unit which contains no carbon monoxide source and which is not located (in whole or in part) on the same story as a carbon monoxide source, no carbon monoxide alarm is required.

610.3.3.2.2. Sleeping areas not located within a dwelling unit. Carbon monoxide alarms shall be provided within sleeping areas that are not located within a dwelling unit when required by this section 610.3.3.2.2.

610.3.3.2.2.1. A carbon monoxide alarm shall be provided within each sleeping area that contains a carbon monoxide source.

610.3.3.2.2.2. A carbon monoxide alarm shall be provided within each sleeping area that is located (in whole or in part) on the same story as a carbon monoxide source.

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610.3.3.2.3. Stories which (1) contain a carbon monoxide source and (2) contain no dwelling unit, sleeping unit or sleeping area. A carbon monoxide alarm shall be provided on every story which (1) contains a carbon monoxide source and (2) contains no dwelling unit, sleeping unit or sleeping area.

610.3.4. Buildings and structures classified in Occupancy Group I-1:

610.3.4.1. Buildings and structures constructed on or after January 1, 2008.

610.3.4.1.1. A carbon monoxide alarm shall be provided on every story containing a sleeping area, within 15 feet of the sleeping area. More than one carbon monoxide alarm shall be provided where necessary to assure that no sleeping area on such story is more than 15 feet away from a carbon monoxide alarm.

610.3.4.1.2. A carbon monoxide alarm shall be provided on every story that contains a carbon monoxide source.

610.3.4.2. Buildings and structures constructed prior to January 1, 2008. A carbon monoxide alarm shall be provided on every story containing a sleeping area, within 15 feet of the sleeping area. More than one carbon monoxide alarm shall be provided where necessary to assure that no sleeping area on such story is more than 15 feet away from a carbon monoxide alarm.

610.4. New carbon monoxide source. This section applies when a carbon monoxide source is installed in, or added, or attached to a building or structure after the date of original construction of the building or structure. This section applies without regard to the date of original construction of the building or structure. When a carbon monoxide source is installed in, or added, or attached to a building or structure, the building or structure (with such new carbon monoxide source) shall be evaluated as if such building or structure (with such new carbon monoxide source) were constructed on or after January 1, 2008, and a carbon monoxide alarm shall be provided at each location determined for such building or structure (with such new carbon monoxide source) pursuant to Section 610.3.

Exception: In lieu of a carbon monoxide alarm, a carbon monoxide detector may be provided at any location where coverage is required, provided that such carbon monoxide detector is part of a system that causes an alarm to sound at such location when carbon monoxide is detected at such location.

610.5. Power source. Carbon monoxide alarms, carbon monoxide detectors, and the alarm control units to which carbon monoxide detectors are connected shall receive their primary

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power from the building wiring, and shall be equipped with a battery backup system that automatically provides power from one or more batteries when primary power is interrupted. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection.

Exceptions:

1. Carbon monoxide alarms and carbon monoxide detectors installed in a building or structure without an electrical power source shall be battery operated.
2. Carbon monoxide alarms and carbon monoxide detectors installed in a building or structure constructed prior to January 1, 2008 may be battery operated, cord-type or direct plug.
3. Carbon monoxide alarms and carbon monoxide detectors installed in a building or structure pursuant to Section 610.4 may be battery operated, cord-type or direct plug.
4. In the case of a building or structure constructed on or after January 1, 2008 and prior to the effective date of this code, when a carbon monoxide alarm or carbon monoxide detector is provided at a location where coverage was not required by prior versions of the Uniform Code, but where coverage is required by Section 610, such carbon monoxide alarm or carbon monoxide detector may be battery operated, cord-type or direct plug.

610.6. Equipment. Carbon monoxide alarms shall be listed and labeled as complying with UL 2034 or CAN/CSA 6.19. Carbon monoxide detectors shall be listed and labeled as complying with UL 2075 and shall meet the sensitivity testing and alarm thresholds of UL 2034 or CAN/CSA 6.19. Carbon monoxide alarms, carbon monoxide detectors and alarm control units shall be installed in accordance with Section 610 and the manufacturer's installation instructions.

610.6.1. Connection of multiple carbon monoxide alarms and detectors. When more than one carbon monoxide alarm is required to be installed within an individual dwelling unit, sleeping unit, or sleeping area, all carbon monoxide alarms in such dwelling unit, sleeping unit, or sleeping area shall be interconnected.

Exception: Interconnection is not required where battery operated, cord-type or direct plug carbon monoxide alarms and carbon monoxide detectors are permitted.

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610.6.2. Maintenance and testing. Carbon monoxide alarms, carbon monoxide detectors, and alarm control units shall be maintained in an operative condition at all times. Carbon monoxide alarms, carbon monoxide detectors, and alarm control units shall be periodically tested in accordance with the manufacturer's instructions. The battery or batteries used as the primary or backup power source shall be replaced when low or when otherwise required by the manufacturer's instructions. Carbon monoxide alarms, carbon monoxide detectors, and alarm control units shall be replaced or repaired where defective, and shall be replaced when they cease to operate as intended.

610.6.3. Disabling of alarms. No carbon monoxide alarm, carbon monoxide detector, or alarm control unit shall be removed or disabled, except for service, repair or replacement purposes.”