



SMOKE ALARM / CARBON MONOXIDE REQUIREMENTS POLICY

Revised 7/26/19

Effective July 1, 2011, a new law may help prevent senseless carbon monoxide (CO) poisoning in the home. CO is formed from the **incomplete** burning of any flame-fueled (i.e., not electric) device including ranges, flame ovens, clothes dryers, furnaces, fireplaces, grills, space heaters, vehicles, and water heaters. Carbon monoxide can be dangerous – when inhaled, it passes from the lungs into the hemoglobin molecules of red blood cells. The result is that the body becomes oxygen-starved, which can lead to tissue damage and death.

Many reported cases of carbon monoxide poisoning say that while victims are aware they are not well, they become so disoriented that they are not able to save themselves by leaving the building or calling for assistance. Carbon monoxide alarms are designed to alert residents before exposure to CO causes a health hazard.

Per California Senate Bill 183, beginning July 1st, 2011, **all existing single-family homes** must have carbon monoxide alarms. All other types of residences (apartments, condominiums, etc.) will need carbon monoxide alarms beginning January 1, 2013. Hotels and motels with fossil fuel appliances and/or attached garages beginning 1/1/2016. In addition, the 2016 California Fire Code requires carbon monoxide detection in existing Group I-2, adult and child day care, detoxification facilities, foster care facilities, hospitals, nursing homes and psychiatric hospitals, I-4, all Residential and Group educational occupancies if equipped with fossil fuel burning appliances.

The new requirements apply if **ANY** of the following are present within a home:

- Attached garage
- Natural gas or propane furnace and/or natural gas range and/or oven, **or**
- Gas or wood-burning fireplace.

For existing homes, the CO alarms may be battery powered. At a minimum, CO alarms are required:

- Outside of each sleeping area or bedroom **and**
- On each level of the home
- Follow manufacturer instructions

California Building and Residential Code Requirements

Effective January 1st, 2011, **ALL** residential permits exceeding \$1000 in valuation will require smoke & carbon monoxide detectors throughout the residence. Smoke & carbon monoxide detectors **must** be installed in accordance with the **2016 California Residential Code (CRC)** and will be verified at permit final inspection

For a list of CO alarms currently approved by the Office of the State Fire Marshal, visit the California Department of Forestry and Fire Protection website at http://osfm.fire.ca.gov/strucfireengineer/pdf/bml/List_CSFM_Approved.pdf. Select 5276 (Carbon Monoxide Alarms) from the "Category" dropdown list and hit the "Search" button.

San Mateo Consolidated Fire Community Risk Reduction Division

Smoke Alarms shall be installed in the following locations:

- In each sleeping room.
- Outside each sleeping area in the immediate vicinity of the bedrooms.
- On each additional story of the dwelling, including basements but not including crawl spaces and uninhabitable attics

Carbon Monoxide Alarms shall be installed in the following locations:

- Outside of each separate dwelling unit sleeping area in the immediate vicinity of the bedroom(s).
- On every level of a dwelling unit including basements

Power and Interconnection

- Power must be supplied by the buildings primary power source for both smoke and carbon monoxide detectors and they must have a battery backup. For existing buildings where walls are not being opened a battery only device may be used.
- Where more than one smoke detectors is installed they must be interconnected
- Where more than one Carbon monoxide alarm is installed they must be interconnected
- Interconnection is not required in existing dwelling units where repairs do not result in the removal of wall and ceiling finishes, there is no access by means of attic, basement or crawl space, and no previous method for interconnection existed.

Smoke Alarms (CFC 907.2.11)

Alterations, repairs and additions.

When alterations, repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings.

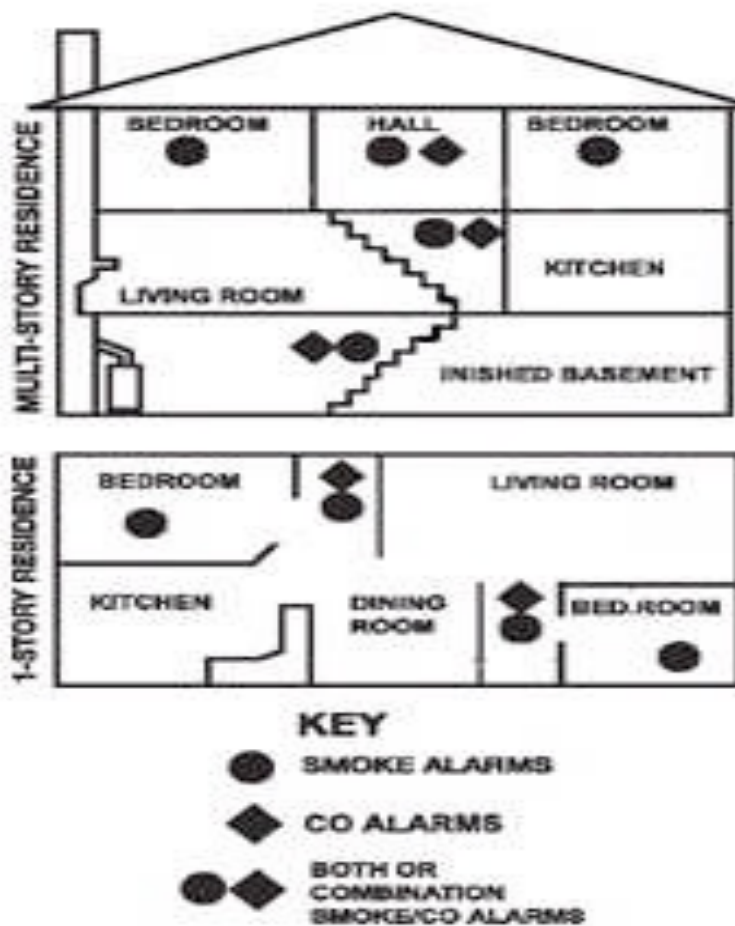
Carbon Monoxide Alarms (CBC 420.6)

Where required in existing dwellings.

Where a permit is required for alterations, repairs or additions exceeding \$1000, existing dwelling units that have attached garages or fuel burning appliances shall be provided with carbon monoxide alarms.

The manufacturer's installation instruction should be followed completely!

Figure 1 – Location of Carbon Monoxide and Smoke Alarms.



Approved by:

Ray Iverson
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