



NORTHSTAR FIRE DEPARTMENT



Smoke & Carbon Monoxide Alarms– Guidelines & Specifications

Fire Prevention Guideline P-01

PURPOSE

Smoke and carbon monoxide detectors are designed to detect fires and fire conditions, and to initiate audible and/or visual signals that warn building occupants and supervisory personnel of fire and other unsafe conditions. All single-family dwelling units require smoke & carbon monoxide detectors throughout the residence.

SCOPE

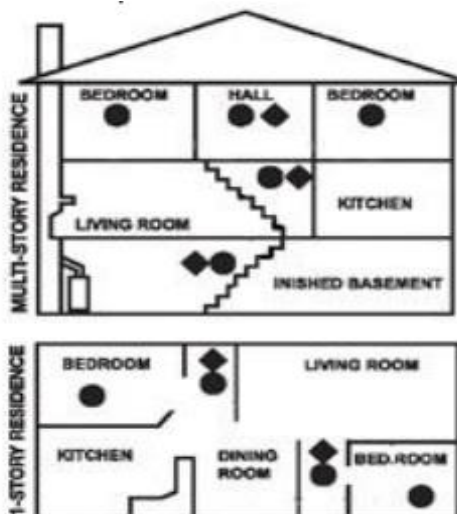
This guideline is meant to aid in the determination of the proper number and placement of smoke and carbon monoxide detectors such that the 2019 California Residential Code (CRC) and California Building Code (CBC) requirements are met. Verification that such requirements are met are determined by the Fire Department during routine final inspections. This guideline must also be used in conjunction with Placer County’s Declaration of Installation for Smoke Alarms & Carbon Monoxide Alarms. (Attached to this guideline is a copy of such a declaration.)

REQUIREMENTS

New Construction and Additions

In new construction and additions, required smoke alarms and carbon monoxide alarms shall receive their primary power from the permanent building electrical power system (and shall be on the lighting circuit connected within the same room as the smoke alarm). Where two or more smoke alarms or

carbon monoxide alarms are required they shall be interconnected in such a manner that actuation of one shall cause actuation of all detectors in the dwelling unit. (CBC 907.2.11, CRC R314, CRC R315)

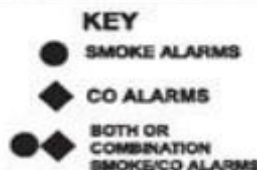


Remodeled Dwelling Units

When a permit is required for any repair, alterations, or addition smoke alarms and carbon monoxide alarms shall be installed in accordance with the following location and maintenance provisions. In existing dwelling units, smoke alarms and carbon monoxide may be battery operated. (CBC 907.2.11, CRC 314, CRC 315)

Smoke Alarms shall be installed in the following locations:

- ✓ In each sleeping room.
- ✓ Outside each sleeping area in the immediate vicinity of the bedrooms.



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- ✓ 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.
- ✓ Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a carbon monoxide alarm shall be installed within the bedroom.

Smoke Alarm and Carbon Monoxide Alarm Device Location

Smoke alarms shall be installed on the ceiling or wall between 4” and 12” of the ceiling. Carbon monoxide alarms shall be installed on the ceiling or wall above the header.

Smoke Alarm Batteries and Replacement

All newly installed smoke alarms shall have a 10-year sealed battery. Smoke alarms shall be replaced upon expiration. (CBC 907.2.11.2, CRC 314, CRC 315)

Maintenance for Multiple Dwelling Complexes

The owner shall be responsible for testing and maintaining detectors in hotels, motels, lodging houses and common stairwells of apartment complexes and other multiple dwelling complexes. The smoke alarm shall be operable at the time that the tenant takes possession. The apartment complex tenant shall be responsible for notifying the manager or owner if the tenant becomes aware of an inoperable smoke alarm within his or her unit. The owner or authorized agent shall correct any reported deficiencies in the smoke alarm and shall not be in violation of this section for a deficient smoke alarm when he or she has not received notice of the deficiency. (CFC 907.9 and California Health and Safety 13113.7)

2019 CALIFORNIA BUILDING STANDARDS CODE OF REGULATIONS TITLE 24

Declaration of Installation for Smoke Alarms and Carbon Monoxide Alarms

The newly adopted California Residential Code requires the installation of Carbon Monoxide Detectors in dwelling units and in sleeping units within which fuel-burning appliances are installed and in dwelling units that have attached garages. The policy for Carbon Monoxide Alarms in the County of Placer states: “All permits issued and associated with a Residential Group R *Dwelling Unit or Sleeping Unit* shall conform to the following California Residential Code requirements for Carbon Monoxide Alarms (Section R315).”

California Residential Code Requirements for Carbon Monoxide Alarms:

R314.3 Smoke alarm locations: 1) Each sleeping room. 2) Outside each separate sleeping area in the immediate vicinity of the bedroom. 3) On each additional story of the dwelling, including basements and habitable attics and 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. 4) Smoke alarms shall be installed not less than 3 feet horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm. 5) Smoke alarms shall not be installed not less than 36” horizontal path from the supply registers of a forced air heating or cooling system and shall be installed outside of the airflow from those systems. 6) Smoke alarms shall not be installed within a 36” horizontal path from the tip of the blade of a ceiling-suspended (paddle) fan.

R315.2.1 Existing buildings and new construction: Carbon monoxide alarms shall be provided in dwelling units where either or both of the following conditions exist. 1) The dwelling unit contains a fuel-fired appliance or fireplace. 2) The dwelling unit has an attached garage with an opening that communicates with the dwelling unit.

R315.4 Combination alarms: Combination carbon monoxide and smoke alarms shall be permitted to be used in lieu of carbon monoxide alarms. Require UL 2075 and UL268.

R315.5 Interconnection. Where more than one carbon monoxide alarm is required to be installed within the dwelling unit or within a sleeping unit in Group R occupancies, the alarm shall be interconnected in a manner that activation of one alarm shall activate all of the alarms in the individual unit.

Exception: Interconnection is not required in existing buildings built prior to January 1, 2011 under the following conditions: 1) no construction is taking place. 2) Repairs or alterations do not result in the removal of interior wall and ceiling finishes. 3) Repairs or alterations are limited to the exterior surfaces of dwellings (re-roofs, siding or window replacement, doors replacement, or the addition of a porch or deck, repairs to plumbing, mechanical or electrical systems) that do not expose the structure in areas that require carbon monoxide alarms.

R315.6 Power source: Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and, where 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.

Exception: A battery-powered or plug in with a battery backup in existing building prior to January 1, 2011 under any of the following conditions: 1) no construction is taking place. 2) Repairs or alterations do not result in the removal of interior wall and ceiling finishes. 3) Repairs or alterations are limited to the exterior surfaces of dwellings (re-roofs, siding or window replacement, doors replacement, or the addition of a porch or deck, repairs to plumbing, mechanical or electrical systems) that do not expose the structure in areas that require carbon monoxide alarms.

DECLARATION OF INSTALLATION UNDER THE PENALTY OF PERJURY

As Owner/Contractor, I/we affirm and declare under the penalty of perjury, under the laws of the State of California by our signatures below as Owner/Contractor, will comply prior to final inspection with Items A & B as specified herein:

- A. The Owner/Contractor have read and clearly understand the aforementioned California Residential Code (CRC) *Carbon Monoxide Alarm* requirements.
- B. The Owner/Contractor is responsible for installing Carbon Monoxide Alarms prior to final inspection as per the aforementioned building code and maintaining such installation. Smoke alarms will also be installed prior to final inspection as per the CRC. Retrofitted smoke alarms shall contain a non-replaceable, non-removable battery that is capable of powering the smoke alarm for at least 10 years.

Owner or Contractor shall complete this Declaration of Installation.

Owner's name (print): _____

Owner's signature: _____ Date: _____

Contractor's name (print): _____ CSLB License: _____

Contractor's signature: _____ Date: _____

Project Address: _____ Permit #: _____