

Introduction

The purpose of this handout is to explain the requirements for smoke and carbon monoxide alarms (detectors) per the 2010 California Residential Code sections 314 & 315.

Smoke Alarms

All new construction, Interior or exterior alterations, repairs, or additions requiring a permit and having a valuation in excess of \$1,000, or when one or more sleeping rooms are added or created, the entire dwelling shall be provided with detectors located as required for a new dwelling.

Smoke alarms shall be installed in the following locations:

- In each sleeping room.
- Outside each separate sleeping area in the immediate vicinity of the bedrooms.
- On each additional story of the dwelling, including basements and habitable attics 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.

Smoke alarms shall receive their primary power from the building wiring provided that such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for over current protection.

Exceptions:

- Smoke alarms are permitted to be solely battery operated in existing buildings where no construction is taking place.
- Smoke alarms are permitted to be solely battery operated in buildings that are not served from a commercial power source.
- Smoke alarms are permitted to be solely battery operated in existing areas of buildings undergoing alterations or repairs that do not result in the removal of interior walls or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for building wiring without the removal of interior finishes.

Carbon Monoxide Alarms

All new construction, Interior or exterior alterations, repairs, or additions requiring a permit and having a valuation in excess of \$1,000, an approved carbon monoxide alarm shall be installed in dwelling units and in sleeping units within which fuel-burning appliances are installed and in dwelling units that have attached garages shall be provided with a carbon monoxide alarm in accordance with Section R315.1.

Carbon monoxide alarms shall only be required in the specific dwelling unit or sleeping unit for which the permit was obtained. Carbon monoxide alarms required by Sections R315.1 and R315.2 shall be installed in the following locations:

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

Where more than one carbon monoxide alarm is required to be installed within the dwelling unit or within a sleeping unit 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 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.

For new construction required carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery back-up.

Alarm wiring shall be directly connected to the permanent building wiring without a disconnecting switch other than as required for over-current protection.

Exceptions:

- In dwelling units where there is no commercial power supply the carbon monoxide alarm may be solely battery operated.
- In existing dwelling units a carbon monoxide alarm is permitted to be solely battery operated where repairs or alterations do not result in the removal of wall and ceiling finishes or there is no access by means of attic, basement or crawl space.

Multiple-Purpose Alarms

Carbon monoxide alarms combined with smoke alarms shall comply with both Section R314 and section R315, all applicable standards, and requirements for listing and approval by the Office of the State Fire Marshal, for smoke alarms.

