



**Smoke & CO Alarms  
Residential Requirements**  
 Planning Building & Transportation  
 2263 Santa Clara Ave., Rm. 190  
 Alameda, CA 94501  
 510.747.6800  
 Hours: 7:30-3:30, Mon-Thur

**CODE SECTION**

CRC 314 & 315

**SMOKE ALARMS**

**WHERE REQUIRED**

- In each sleeping room.
- Outside each separate sleeping area in the immediate vicinity of the bedrooms.
- On each story of the dwelling, including basements and habitable attics, not including crawl spaces and uninhabitable attics. In units with split levels and without an intervening door between 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.

**SPECIFIC LOCATION REQUIREMENTS**

- Alarms shall be > 3’ from the opening of a shower room, if possible.
- Alarms shall be > 20’ from cooking appliances, if possible.

**Exceptions:**

- Ionization alarms with an alarm-silencing switch or photoelectric alarms shall be permitted to be installed 10’ from a cooking appliance.
- Photoelectric alarms shall be permitted to be installed 6’ from a cooking appliance where the kitchen or cooking area and adjacent spaces have no clear interior partitions and the 10’ distances would prohibit the placement of a smoke alarm or smoke detector required by other sections of the code.
- Smoke alarms listed for use in close proximity to a permanently installed cooking appliance.
- Alarms shall be > 36” from the heating/cooling registers & ceiling fans
- For stairways leading up from a basement, smoke alarms shall be located on the basement ceiling near the entry to the stairs.
- For tray ceilings, alarms shall be installed on the highest portion of the ceiling or on the sloped portion of the ceiling within 12” vertically down from the highest point.

## **INTERCONNECTION**

Where more than one alarm is required to be installed within a unit, the alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the unit.

### **Exception:**

- Interconnection is not required in areas that are not undergoing alterations, repairs or construction.

## **POWER SOURCE**

Alarms shall receive their primary power from the building wiring and be equipped with a battery backup.

### **Exceptions:**

- Alarms are permitted to be solely battery operated in existing buildings where no construction is taking place.
- 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.

# **CARBON MONOXIDE (CO) ALARMS**

## **WHERE REQUIRED**

For existing buildings and new construction, CO alarms shall be provided where either or both of the following conditions exist.

- The unit contains a fuel-fired appliance or fireplace.
- The unit has an attached garage with an opening that communicates with the unit.

## **ALTERATIONS, REPAIRS AND ADDITIONS**

Where an addition is made to an existing dwelling, or a fuel-burning appliance, or fireplace is added to an existing dwelling, not previously required to be provided with carbon monoxide alarms, new CO alarms shall be installed.

### **Exceptions:**

- Work involving the exterior surfaces of dwellings.
- Installation, alteration or repairs of plumbing or mechanical systems.

## **LOCATION**

Outside of each separate sleeping area in the immediate vicinity of the bedrooms.

- On every occupiable level of a dwelling unit, including basements.
- Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a CO alarm shall be installed within the bedroom.

## **INTERCONNECTIVITY**

Where more than one CO alarm is required to be installed within a 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 dwelling unit.

## **POWER SOURCE**

CO alarms shall receive their primary power from the building wiring and shall be equipped with a battery backup.

### **Exceptions:**

- CO alarms are permitted to be solely battery operated in existing buildings where no construction is taking place.
- CO 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.

CO alarms are permitted to be solely battery operated where repairs or alterations are limited to the exterior surfaces of dwellings