



Smoke Alarms

IRC 2018

R314.1 General:

Smoke alarms shall comply with NFPA 72 & Section R314. Smoke alarms shall be listed in accordance with UL 217.

R314.2.1 New construction:

Smoke alarms shall be provided in dwelling units.

R314.2.2 Alterations, repairs & additions:

Where alterations, repairs or additions requiring a permit occur, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings.

Exceptions:

- *Work involving the exterior surfaces of dwellings (i.e. roofing, siding, windows, doors, deck, porch, etc.)*
- *Installation, alteration or repairs of plumbing or mechanical systems*

R314.3 Location:

- 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 & habitable attics but not crawl spaces & uninhabitable attics. With split levels & without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level, provided it is less than on full story below the upper level.
- Smoke alarms shall not be closer than 3 feet from a bathroom door containing bathtub or shower, unless this would prevent placement of a smoke alarm required by Section R314.3.

R314.3.1 Installation near cooking appliances:

Smoke alarms shall not be installed in the following locations unless this would prevent placement of a smoke alarm required by Section R314.3.

- Ionization smoke alarms shall not be closer than 20 feet from a permanently installed cooking appliance.
- Ionization smoke alarms with an alarm-silencing switch shall not be closer than 10 feet from a permanently installed cooking appliance.
- Ionization smoke alarms shall not be closer than 20 feet from a permanently installed cooking appliance.
- Photoelectric smoke alarms shall not be closer than 6 feet from a permanently installed cooking appliance.

R314.4 Interconnection:

Where more than one smoke alarm is required in accordance with Section R314.3, the alarm devices shall be interconnected. Physical interconnection is not required where listed wireless alarms are installed & all alarms sound upon activation of one alarm.

R314.5 Combination alarms:

Combination smoke alarms & carbon monoxide shall be permitted to be used in lieu of smoke alarms.

R314.6 Power source:

Smoke 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 & without disconnecting switch other than those required for overcurrent protection.

Exceptions:

- *Smoke alarms shall be permitted to be battery operated where installed in buildings without commercial power*
- *In accordance with Section R314.2.2 shall be permitted to be battery powered*

R314.7 Fire alarm systems:

Fire alarm systems shall be permitted in lieu of smoke alarms, complying with the following:

- Compliance with NFPA 72 & shall be listed in accordance with UL 268
- Smoke detectors shall be installed in the locations specified in Section R314.3
- It shall become a permanent fixture of the occupancy, owned by the homeowner
- Combination smoke & carbon monoxide detectors shall be permitted to be installed in fire alarm systems in lieu of smoke detectors, provided that they are listed in accordance with UL 268 & UL 2075