

# Smoke Alarms

IRC 2015

## **R314.1 General:**

Smoke alarms shall comply with NFPA 72 & Section R314. Per R314.1.1 Listings; 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, or where 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.

### 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.

(continued)

Exception:

- *Interconnection shall not be required where alterations or repairs do not result in removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement that could provide access for interconnection without removal of interior finishes.*

**R315.4 Combination alarms:**

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

**R315.5 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 carbon monoxide 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