

Smoke Alarm Code
Indiana Residential Code
Adoption Date 6-15-2008

675 IAC 14-4.3-37, Section 313; Smoke Alarms

R313.1 Labeling. Each smoke alarm shall be listed:

R313.2 Required smoke alarm locations. At least one smoke alarm shall be installed in each of the following locations:

- (a) In the living area remote from the kitchen and cooking appliances. Smoke alarms located within 20 feet (6.1 m) horizontally of a cooking appliance must incorporate a temporary silencing feature or be photoelectric type.
- (b) In each room designed for sleeping.
- (c) On the ceiling of the upper level near the top or above each stairway, other than a basement stairway, in any multi-story dwelling. The alarm shall be located so that smoke rising in the stairway cannot be prevented from reaching the alarm by an intervening door or obstruction.
- (d) On the basement ceiling near the stairway.

R313.2.1. Alterations and additions. When interior alterations or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be provided with smoke alarms located as required for new dwellings; the smoke alarms shall be interconnected and hard wired.

Exceptions:

1. Smoke alarms in existing areas shall not be required to meet the requirements of R313.5 where the alterations do not result in the removal of the interior wall or ceiling finishes exposing the structure unless there is an attic, crawlspace, or basement available that could provide access for hard wiring and interconnection without the removal of interior finishes.
2. Repairs are exempt from the requirements of this section.

R313.3 Prohibited smoke alarm locations. A smoke alarm required under this section shall not be placed:

1. within 3 feet (914 mm) horizontally from any grille moving conditioned air within the living space; or
2. in any location or environment that is prohibited by the terms of the listing.

R313.4 Mounting requirements. Smoke alarms required by Section R313.2 shall be mounted in accordance with their listing, installation instructions, and the requirements of this section.

R313.4.1 Flat Ceilings. In rooms with flat, peaked sloping or single slope ceilings with a slope of less than 1.5/12, smoke alarms shall be mounted either:

1. on the ceiling at least 4 inches (102 mm) from each wall; or
2. on a wall with the top of the alarm not less than 4 inches (102 mm) below the ceiling and not farther from the ceiling than 12 inches (305 mm) or the distance from the ceiling specified in the smoke alarm manufacturers listing and installation instructions, whichever is less.

R313.4.2. Peaked Sloping Ceilings. In rooms with peaked sloping ceilings with a slope of 1.5/12 or greater, smoke alarms shall be:

1. mounted on the ceiling or wall within 3 feet (914 mm) measured horizontally, from the peak of the ceiling;
2. at least 4 inches (102 mm), measured vertically, below the peak of the ceiling; and
3. at least 4 inches (102 mm) from any projecting structural element.

R313.4.3 Single Slope Ceilings. In rooms with single slope ceilings with a slope of 1.5/12 or greater, smoke alarms shall be:

1. mounted on the ceiling or wall within 3 feet (914 mm), measured horizontally, of the high point of the ceiling; and
2. not closer than 4 inches (102 mm) from any adjoining wall surfaces or any projecting structural element.

R313.4.4 Visible notification appliances. In addition to the smoke alarms required pursuant to this section, listed visible notification appliances, when installed, shall meet the following:

R313.4.4.1 Candela Rating-Sleeping Room. A visible notification appliance, when installed in a room designed for sleeping, shall have a minimum rating of 177 candela, except that when the visible notification appliance is wall-mounted or suspended more than 24 inches (610 mm) below the ceiling, a minimum rating of 110 candela is permitted.

R313.4.4.2 Candela Rating-Non-Sleeping Room. A visible notification appliance, when installed in an area other than a room designed for sleeping, shall have a minimum rating of 15 candela.

R313.5 Connection to Power Source. Each smoke alarm shall be powered from:

1. the electrical system of the home as the primary power source and a battery as a secondary power source; or
 2. a battery rated for a 10 year life, provided the smoke alarm is listed for use with a 10 year battery.
- Exception: Visible notification appliances are required to operate from the primary power source but are not required to operate from a secondary power source.

R313.5.1 Circuitry. Each smoke alarm whose primary power source is the home electrical system shall be mounted on an electrical outlet box and be connected by a permanent wiring method to a general branch circuit. The same branch circuit may serve more than one smoke alarm. The branch circuit for the alarm shall not include any switches between the branch circuit overcurrent protective device and the alarm and shall not be protected by a ground-fault circuit-interrupter.

R313.5.2 Interconnection. 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.

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