

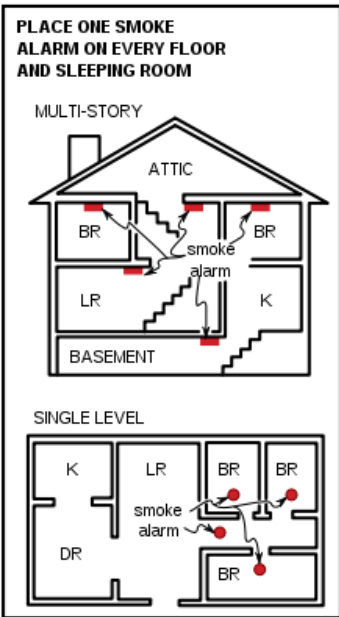


Building Inspections Department
 City of Waterloo
 715 Mulberry Street
 Waterloo IA 50703
 319-291-4319

SMOKE & CARBON MONOXIDE ALARMS

Section R314 and R315 - 2015 IRC

Fire is the third leading cause of accidental death. Most fire fatalities happen in the home and most of these deaths occur at night during the sleeping hours. Properly working smoke detectors have been proven to save lives and are required per the International Residential Code for new and existing dwellings.



In new construction, interconnected smoke detectors shall be installed and shall be equipped with battery backup. Interconnected alarms are such that when smoke is detected in one location, the alarms are activated in all locations. This is achieved by hard-wiring the devices to the home's power. Newer technology of wireless smoke alarms that communicate wirelessly through a host device also satisfy the interconnected requirement. Per Iowa Law, smoke alarms must be dual sensor meaning it has two methods for detecting smoke, typically ionization and photoelectric sensors.



Smoke Detectors shall be installed in the following locations:

- In each sleeping room
- Outside each sleeping room in the immediate vicinity of the bedrooms
- On each additional story of the dwelling including basements but not including crawl spaces and uninhabitable attics. In dwellings 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 the lower level is less than one full story below the upper level.

Consult manufacturers recommendations for placement of detectors on walls and ceilings.

Alterations, Additions and Repairs in existing dwellings. When interior alterations, repairs or additions requiring a permit occur, or when a sleeping room is added or created in existing dwellings, smoke alarms shall be provided throughout the dwelling in the locations as required for new homes. Rooms that have exposed wall and/or ceiling areas require the installation of interconnected alarms. Locations that are not a part of the building project and do not contain exposed walls or ceilings, battery operated stickup alarms are accepted.

Exceptions: 1) Work involving the exterior surface of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, are exempt from the requirements of this section. 2) Alteration, installation, or repairs of plumbing or mechanical systems are exempt from the requirements of this section.



Carbon Monoxide Alarms are required in dwellings that contain any fuel fired appliance or is constructed with any opening into an attached garage. Requirements for new construction, alterations and exemptions are the same as for smoke detectors. Locations: a carbon monoxide alarm shall be installed outside of each sleeping area in the immediate vicinity of the bedrooms. Carbon Monoxide Alarms can be combination smoke alarms.

Smoke Alarms and Carbon Monoxide alarms must be installed and operational prior to final inspection.

This brochure is intended to explain some of the requirements for residential smoke alarms and carbon monoxide detectors. If you have further questions, please contact the Building Inspections Department.