

New Requirement. Per the 2015 Minnesota State Residential Code, any alteration, repair, or addition requiring a permit occurs, smoke detectors (section R314.3.1) and carbon monoxide detectors (section R315.3) shall be installed as required for new construction. The only exception to this rule is when the work only involves exterior surfaces only and have no correlation with the interior of the home. See *Alterations, repairs and additions* in each section below.

Examples when required w/ permit

- window/door replacement
- gas water heater/furnace replacement
- gas fireplace installation
- gas garage heater installation
- any interior work requiring a permit

Examples when not required w/ permit

- siding
- roofing
- chimney repair
- building a deck

SMOKE DETECTORS (R314)

New Construction. Alarms in new construction (including most basement finishes) must receive their power from the building wiring and have a battery backup in the event of electrical power loss. During remodeling, where connection to the building wiring is difficult to achieve, battery operated alarms may be used (R314.4). An important feature of the requirement for alarms being connected into the building's electrical wiring is there must be no disconnecting means other than the primary over current protection (fuse or circuit breaker). Alarms must be wired directly into the building's wiring system and no switches, plugs or mechanical disconnects are permitted between the electric service panel and the alarm.

Alterations, repairs and additions. When alterations, repairs 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 equipped with smoke alarms located as required for new dwellings, the smoke alarms shall be interconnected and hard wired.

Exceptions:

1. Interconnection and hardwiring of smoke alarms in existing areas shall not be required to be hardwired where the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure.
2. Work on the exterior surfaces of dwellings, such as the replacement of roofing or siding are exempt from the requirements of this section.
3. Permits involving only alterations or repairs to plumbing, electrical and mechanical are exempt from the requirements of this section (R314.3.1).

Location. Smoke alarms shall be installed in each of the following locations:

1. Within each sleeping room.
2. Outside of each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split 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.

Product listings. All smoke alarms/detectors shall be listed in accordance with Underwriters Laboratory 217 (UL 217) and installed in accordance with the provisions of this code and the household fire warning equipment provisions of National Fire Protection Agency (NFPA) 72. Household fire alarm systems installed in accordance with NFPA 72 that include smoke alarms, or a combination of smoke detector and audible notification device installed as required by this section for smoke alarms, shall be permitted. The household fire alarm system shall provide the same level of smoke detection and alarm as required by this section for smoke alarms in the event the fire alarm panel is removed or the system is not connected to a central station (R313.1).

CARBON MONOXIDE (R315)

New Construction. For new construction, every one-family dwelling unit, two-family dwelling unit, and each townhouse dwelling unit shall have an approved and operational carbon monoxide alarm installed when one of the following conditions occur:

1. Fuel-fired appliances are installed; or
2. Have attached garages.

Alterations, repairs and additions. Where work requiring a permit occurs in existing dwellings that have attached garages or in existing dwellings within which fuel-fired appliances exist, carbon monoxide alarms shall be provided as required in new construction.

Location. Carbon monoxide alarms shall be installed outside and not more than 10 feet from each separate sleeping area or bedroom. Alarms shall be installed on each level containing sleeping areas or bedrooms. It is important that these devices be installed in accordance with the manufacturer's installation instructions and not be placed in 'dead' air pockets such as corners of rooms, at the junction of walls and ceilings or within thirty-six (36) inches of ventilation ducts. Carbon monoxide alarms shall be installed at the height specified in the manufacturer's installation instructions.

Product Listing. All carbon monoxide alarms must be certified by a nationally recognized testing laboratory that conform to the latest Underwriters Laboratories (U/L) Standards known as UL-2034.

MULTI-FAMILY DWELLING UNITS

Owner responsibilities in multifamily dwellings. It shall be the owner's responsibility of a multifamily dwelling that is required to be equipped with carbon monoxide alarms to:

1. provide and install one approved and operational carbon monoxide alarm within ten feet of each room lawfully used for sleeping, as required above; and,
2. Replace any required carbon monoxide alarm that has been stolen, removed, found missing, or rendered inoperable during a prior occupancy of the dwelling unit and which has not been replaced by the occupant prior to the commencement of a new occupancy of a dwelling unit.

Battery removal and tampering prohibited. No person shall remove batteries from, or in any way render inoperable, a required carbon monoxide alarm.

The information in this handout is just an overview. See the 2015 Minnesota Residential Code for complete information.