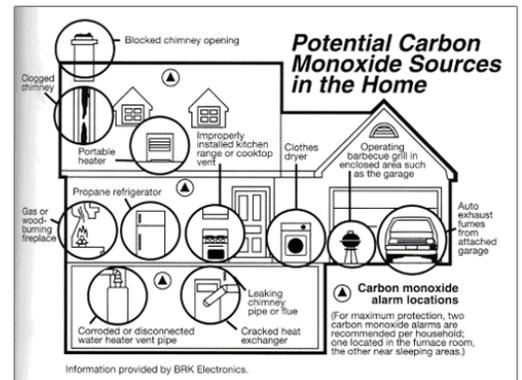


CARBON MONOXIDE ALARMS



**BUILDING
DEPARTMENT
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Carbon monoxide (CO) is a toxic, colorless, odorless gas that is formed as a product of incomplete combustion of natural gas, diesel, oil, kerosene, propane, or any other carbon compound. CO is found in fumes produced any time you burn fuel in cars or trucks, small engines, stoves, lanterns, grills, fireplaces, gas ranges, natural gas heaters, furnaces or any other fuel burning appliance. CO can build up indoors and poison people and animals who breathe it. The most common symptoms of CO poisoning are headache, dizziness, weakness, upset stomach, vomiting, chest pain, and confusion. CO symptoms are often described as “flu-like.” If you breathe in a lot of CO it can make you pass out or kill you. People who are sleeping or drunk can die from CO poisoning before they have symptoms. Everyone is at risk for CO poisoning. Infants, the elderly, people with chronic heart disease, anemia, or breathing problems are more likely to get sick from CO. Each year, more than 400 Americans die from unintentional CO poisoning not linked to fires, more than 20,000 visit the emergency room, and more than 4,000 are hospitalized. The best way to protect yourself is to install CO detectors in your home as required by the Code.

Carbon monoxide alarms are required by the Minnesota Building Code in new construction and ***whenever there is a permit issued for any type of work in an existing dwelling unit or townhouse that contains a fuel-fuel fired appliance or an attached garage.***

Before calling for a final inspection, it is your responsibility to insure that all detectors are properly placed, as they will be checked as a part of that inspection. Permit applicants are responsible for compliance.

Carbon monoxide alarms must be installed on each floor containing sleeping rooms within ten feet of each bedroom. One CO alarm may serve more than one bedroom if installed within required distance. The Minnesota Building Code permits either single station alarms or approved systems.

In existing dwellings, any time a permit is issued for any work (building, plumbing, heating, ventilating, air- conditioning, electrical, swimming pools, or retaining walls), carbon monoxide alarms must be installed. Even if the work is exterior, CO alarms are required if any fuel burning appliances exist or if you have an attached garage. The responsibility for installing the alarm falls on the permit applicant.

The text from the 2015 Minnesota State Building Code follows:

MINNESOTA STATE BUILDING CODE
SECTION R315
CARBON MONOXIDE ALARMS

R315.1 Carbon monoxide alarms. 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.

R315.1.1 Installation. 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.

R315.2 Carbon monoxide detection systems. Carbon monoxide detection systems that include carbon monoxide detectors and audible notification appliances, installed and maintained in accordance with this section for carbon monoxide alarms and NFPA 720, shall be permitted. The carbon monoxide detectors shall be listed as complying with UL 2075. Where a household carbon monoxide detection system is installed, it shall become a permanent fixture of the occupancy, owned by the homeowner and shall be monitored by an approved supervising station.

Exception: Where carbon monoxide alarms are installed meeting the requirements of Section R315.1, compliance with Section 315.2 is not required.

R315.3 Where required in existing dwellings. 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 in accordance with Section R315.1.

R315.4 Alarm requirements. Single-station carbon monoxide alarms shall be listed as complying with UL 2034 and shall be installed in accordance with this code and the manufacturer's installation instructions.

In addition to the Building Code requirements for CO alarms, there is also a state statute passed by the Minnesota Legislature that applies to all dwellings in the state. It is more restrictive than the state building code. It requires **all** dwellings regardless of age and construction activity to have carbon monoxide alarms. The statute has some unique requirements that differ from the Building Code. CO alarms are required whether or not a permit is ever obtained. The statute requires CO alarms in all dwellings even if there are no fuel burning appliances or attached garages. Also, the statute only recognizes single station detectors and not systems.

The text from the Statute follows:

Minnesota Statutes 299F.50

[299F.50] DEFINITIONS.

*Subdivision 1. **Scope.** As used in sections 299F.50 to 299F.52, the terms defined in this section have the meanings given them.*

*Subd. 2. **Installed.** "Installed" means that an approved carbon monoxide alarm is hard-wired into the electrical wiring, directly plugged into an electrical outlet without a switch, or, if the alarm is battery-powered, attached to the wall of the dwelling.*

*Subd. 3. **Single and multifamily dwelling.** "Single and multifamily dwelling" means any building or structure which is wholly or partly used or intended to be used for living or sleeping by human occupants.*

*Subd. 4. **Dwelling unit.** "Dwelling unit" means an area meant for living or sleeping by human occupants.*

*Subd. 5. **Approved carbon monoxide alarm.** "Approved carbon monoxide alarm" means a device meant for the purpose of detecting carbon monoxide that is certified by a nationally recognized testing laboratory to conform to the latest Underwriters Laboratories Standards (known as UL2034 standards).*

*Subd. 6. **Operational.** "Operational" means working and in service.*

EFFECTIVE DATE. *This section is effective January 1, 2007, for all newly constructed single family and multifamily dwelling units for which building permits were issued on or after January 1, 2007; August 1, 2008, for all existing single family dwelling units; and August 1, 2009, for all multifamily dwelling units.*

[299F.51] REQUIREMENTS FOR CARBON MONOXIDE ALARMS.

*Subdivision 1. **Generally.** Every single family dwelling and every dwelling unit in a multifamily dwelling must have an approved and operational carbon monoxide alarm installed within ten feet of each room lawfully used for sleeping purposes. Subd. 2. **Owner's duties.** The owner of a multifamily dwelling unit which is required to be equipped with one or more approved carbon monoxide alarms must:*

- (1) provide and install one approved and operational carbon monoxide alarm within ten feet of each room lawfully used for sleeping; 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 prior occupant prior to the commencement of a new occupancy of a dwelling unit.*

*Subd. 3. **Occupant's duties.** The occupant of each dwelling unit in a multifamily dwelling in which an approved and operational carbon monoxide alarm has been provided and installed by the owner must:*

- (1) keep and maintain the device in good repair; and*
- (2) replace any device that is stolen, removed, missing, or rendered inoperable during the occupancy of the dwelling unit.*

*Subd. 4. **Battery removal prohibited.** No person shall remove batteries from, or in any way render inoperable, a required carbon monoxide alarm.*

*Subd. 5. **Exceptions; certain multifamily dwellings and state-operated facilities.***

(a) In lieu of requirements of subdivision 1, multifamily dwellings may have approved and operational carbon monoxide alarms installed between 15 and 25 feet of carbon monoxide producing central fixtures and equipment provided there is a centralized alarm system or other mechanism for responsible parties to hear the alarm at all times.

(b) An owner of a multifamily dwelling that contains minimal or no sources of carbon monoxide may be exempted from the requirements of subdivision 1, provided that such owner certifies to the commissioner of public safety that such multifamily dwelling poses no foreseeable carbon monoxide risk to the health and safety to the dwelling units.

(c) The requirements of this section do not apply to facilities owned or operated by the state of Minnesota.

EFFECTIVE DATE. *This section is effective January 1, 2007, for all newly constructed single family and multifamily dwelling units for which building permits were issued on or after January 1, 2007; August 1, 2008, for all existing single family dwelling units; and August 1, 2009, for all multifamily dwelling units.*