

## SECTION 915 CARBON MONOXIDE DETECTION

### 915.1 General.

Carbon monoxide detection shall be installed in new buildings in accordance with Sections 915.1.1 through 915.6. Carbon monoxide detection shall be installed in existing buildings in accordance with Section 1103.9.

*See Minnesota Statutes, section 299F.51, subdivision 5 for information regarding the potential for an owner of a multifamily apartment building to certify that the building has no foreseeable carbon monoxide risk. For an apartment building owner to be eligible to complete the Owner's Certification of Exemption form and submit it to the commissioner of public safety, the building must be all electric with no fuel-fired appliances. Additional information is available on the SFMD website.*

### 915.1.1 Where required.

Carbon monoxide detection shall be provided in Group I-1, I-2, I-4 and R occupancies and in classrooms in Group E occupancies in the locations specified in Section 915.2 where any of the conditions in Sections 915.1.2 through 915.1.6 exist.

**Exception:** In multifamily dwellings, approved and operational carbon monoxide alarms may be installed between 15 and 25 feet of carbon monoxide-producing central fixtures and equipment provided there is a centralized alarm system or other approved mechanism for responsible parties to hear the alarms at all times.

### 915.1.2 Fuel-burning appliances and fuel-burning fireplaces.

Carbon monoxide detection shall be provided in *dwelling units, sleeping units* and classrooms that contain a fuel-burning appliance or a fuel-burning fireplace.

### 915.1.3 Fuel-burning forced-air furnaces.

Carbon monoxide detection shall be provided in *dwelling units, sleeping units* and classrooms served by a fuel-burning, forced-air furnace.

**Exception:** Carbon monoxide detection shall not be required in *dwelling units, sleeping units* and classrooms where a carbon monoxide detector is provided in the first room or area served by each main duct leaving the furnace, and the carbon monoxide alarm signals are automatically transmitted to an approved location.

### 915.1.4 Fuel-burning appliances outside of dwelling units, sleeping units and classrooms.

Carbon monoxide detection shall be provided in *dwelling units, sleeping units* and classrooms located in buildings that contain fuel-burning appliances or fuel-burning fireplaces.

### Exceptions:

1. 1. Carbon monoxide detection shall not be required in *dwelling units, sleeping units* and classrooms without communicating openings between the fuel-burning appliance or fuel-burning fireplace and the *dwelling unit, sleeping unit* or classroom.
2. 2. Carbon monoxide detection shall not be required in *dwelling units, sleeping units* and classrooms where a carbon monoxide detector is provided in one of the following locations:
  1. 2.1. In an approved location between the fuel-burning appliance or fuel-burning fireplace and the *dwelling unit, sleeping unit* or classroom.
  2. 2.2. On the ceiling of the room containing the fuel-burning appliance or fuel-burning fireplace.

**915.1.5 Private garages.**

Carbon monoxide detection shall be provided in *dwelling units*, *sleeping units* and classrooms in buildings with attached private garages.

**Exceptions:**

1. Carbon monoxide detection shall not be required in *dwelling units*, *sleeping units* and classrooms without communicating openings between the private garage and the *dwelling unit*, *sleeping unit* or classroom.
2. Carbon monoxide detection shall not be required in *dwelling units*, *sleeping units* and classrooms located more than one story above or below a private garage.
3. Carbon monoxide detection shall not be required where the private garage connects to the building through an open-ended corridor.
4. **Where a carbon monoxide detector is provided** in an approved location between openings to a private garage and *dwelling units*, *sleeping units* or **classrooms**.

**915.1.6 Exempt garages.**

For determining compliance with Section 915.1.5, an open parking garage complying with Section 406.5 of the *International Building Code* or an enclosed parking garage complying with Section 406.6 of the *International Building Code* shall not be considered a private garage.

**915.2 Locations.**

Where required by Section 915.1.1, carbon monoxide detection shall be installed in the locations specified in Sections 915.2.1 through 915.2.3.

**915.2.1 Dwelling units.**

Carbon monoxide detection shall be installed in dwelling units outside of each separate sleeping area within 10 feet of the bedrooms. Where a fuel-burning appliance is located in a bedroom or its attached bathroom, carbon monoxide detection shall be installed within the bedroom.

**915.2.2 Sleeping units.**

Carbon monoxide detection shall be installed in sleeping units.

**Exception:** Carbon monoxide detection shall be allowed to be installed outside of each separate sleeping area within 10 feet of the sleeping unit where the sleeping unit or its attached bedroom does not contain a fuel-burning appliance and is not served by a forced air furnace.

**915.2.3 Group E occupancies.**

Carbon monoxide detectors shall be installed in classrooms in Group E occupancies. Carbon monoxide alarm signals shall be automatically transmitted to an on-site location that is staffed by school personnel.

**Exception:** Carbon monoxide alarm signals shall not be required to be automatically transmitted to an on-site location that is staffed by school personnel in Group E occupancies with an occupant load of 30 or less.

**915.3 Carbon monoxide detection.**

Carbon monoxide detection required by Sections 915.1 through 915.2.3 shall be provided by carbon monoxide alarms complying with Section 915.4 or carbon monoxide detection systems complying with Section 915.5.

**915.4 Carbon monoxide alarms.**

Carbon monoxide alarms shall comply with Sections 915.4.1 through 915.4.4.

**915.4.1 Power source.**

Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source, and when primary power is interrupted, shall receive

power from a battery. Wiring shall be permanent and without a disconnecting switch other than that required for overcurrent protection.

**Exception:** Where installed in buildings without commercial power, battery-powered carbon monoxide alarms shall be an acceptable alternative.

**915.4.2 Listings.**

Carbon monoxide alarms shall be listed in accordance with UL 2034.

**915.4.3 Locations.**

Carbon monoxide alarms shall only be installed in *dwelling units* and in *sleeping units*. They shall not be installed in locations where the code requires carbon monoxide detectors to be used.

**915.4.4 Combination alarms.**

Combination carbon monoxide/smoke alarms shall be an acceptable alternative to carbon monoxide alarms. Combination carbon monoxide/smoke alarms shall be listed in accordance with UL 2034 and UL 217.

**915.5 Carbon monoxide detection systems.**

Carbon monoxide detection systems shall be an acceptable alternative to carbon monoxide alarms and shall comply with Sections 915.5.1 through 915.5.3.

**915.5.1 General.**

Carbon monoxide detection systems shall comply with NFPA 720. Carbon monoxide detectors shall be listed in accordance with UL 2075.

**915.5.2 Locations.**

Carbon monoxide detectors shall be installed in the locations specified in Section 915.2. These locations supersede the locations specified in NFPA 720.

**915.5.3 Combination detectors.**

Combination carbon monoxide/smoke detectors installed in carbon monoxide detection systems shall be an acceptable alternative to carbon monoxide detectors, provided that they are listed in accordance with UL 2075 and UL 268.

**915.6 Maintenance.**

Carbon monoxide alarms and carbon monoxide detection systems shall be maintained in accordance with NFPA 720. Carbon monoxide alarms and carbon monoxide detectors that become inoperable or begin producing end-of-life signals shall be replaced.

**915.6.1 Enclosed parking garages.**

Carbon monoxide and nitrogen dioxide detectors installed in enclosed parking garages in accordance with the *International Mechanical Code*, Section 404.1 shall be maintained in accordance with the manufacturer's instructions and their listing. Detectors that become inoperable or begin producing end-of-life signals shall be replaced.