

1103.9 Carbon monoxide alarms. Approved carbon monoxide alarms in existing buildings and structures shall be provided in the locations described in Sections 1103.9.1 and 1103.9.2.

**1103.9.1 ~~Carbon monoxide alarms~~ Group I.** Existing Group I ~~or R~~ occupancies located in a building containing a fuel-burning appliance or a building which has an attached garage shall be equipped with single-station carbon monoxide alarms. The carbon monoxide alarms shall be listed as complying with UL 2034, and be installed and maintained in accordance with NFPA 720 and the manufacturer's instructions. An open parking garage, as defined in the *International Building Code*, or an enclosed parking garage ventilated in accordance with Section 404 of the *International Mechanical Code* shall not be deemed to be an attached garage.

**Exception:** ~~Sleeping units or dwelling units~~ which do not themselves contain a fuel-burning appliance or have an attached garage, but which are located in a building with a fuel-burning appliance or an attached garage, need not be equipped with single-station carbon monoxide alarms provided that:

1. ~~The sleeping unit or dwelling unit~~ is located more than one story above or below any story that contains a fuel-burning appliance or an attached garage;
2. ~~The sleeping unit or dwelling unit~~ is not connected by duct work or ventilation shafts to any room containing a fuel-burning appliance or to an attached garage; and
3. The building is provided with a common area carbon monoxide alarm system.

**1103.9.1.1 Carbon monoxide detection systems.** Carbon monoxide detection systems which 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.

**1103.9.2 Group R.** Carbon monoxide alarms or a household carbon monoxide detection system shall be installed in Group R occupancies in accordance with this code and Oregon Administrative Rule 837 Division 047.

**1103.9.2.1 Installation location.** Carbon monoxide alarms shall be located in each bedroom or within 15 feet ( 457 mm) outside each bedroom door. Bedrooms on separate floor levels in a structure consisting of two or more stories shall have separate carbon monoxide alarms serving each story.

**1103.9.2.1.2 Three or more dwelling units.** In addition to the locations required by Section 1103.9.2.1, a carbon monoxide alarm shall be installed in any enclosed common areas within buildings containing three or more dwelling units.

**1103.9.2.2 Alarm requirements.**

**1103.9.2.2.1 Single station alarm requirements.** Single station carbon monoxide alarms shall be *listed* as complying with ANSI/UL 2034 and shall be installed in accordance with this code and the manufacturer's installation instructions.

**1103.9.2.2.2. Household carbon monoxide detection systems.** Household 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 ANSI/UL 2075.

**1103.9.2.2.3 Combination smoke/carbon monoxide alarm/detectors requirements.** Combination smoke/carbon monoxide alarms shall be *listed* as complying with ANSI/UL 2034 and ANSI/UL 217. Combination smoke/carbon monoxide detectors shall be *listed* as complying with ANSI/UL 2075 and ANSI/UL 268. See Section 907.2.11 of this code for additional requirements specific to the installation of smoke alarms.

**1103.9.2.3 Power source.**

**1103.9.2.3.1 Carbon monoxide alarms.** Single station carbon monoxide alarms shall be battery operated, or may receive their primary power from the building wiring system. Plug in devices securely fastened to the structure and installed in accordance with the manufacturer's installation instructions are deemed to satisfy this requirement. Hard wired and plug in carbon monoxide alarms shall be equipped with battery back up.

**1103.9.2.3.2 Household carbon monoxide detection systems. Required power supply sources for household carbon monoxide detection systems shall be in accordance with NFPA 720.**

**1103.9.2.3.3 Combination smoke/carbon monoxide alarms/detectors. Combination smoke/carbon monoxide alarms/detectors shall receive their power source in accordance with Section 907.2.11.4 and NFPA 72. Smoke alarm features of combination smoke/carbon monoxide alarms shall be interconnected.**

**Exception: Interconnection and hard wiring of combination smoke/carbon monoxide alarms/detectors in existing areas shall not be required where the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure.**

**1103.9.2.4 Where required in existing affected occupancies. Where a new carbon monoxide source is introduced or work requiring a structural permit occurs in existing Group R occupancies, carbon monoxide alarms shall be provided in accordance with Section 1103.9.2.1 through 1103.9.7.2.3 of this code.**

**Exception: Work involving the exterior surfaces of affected occupancies, 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.**

**1103.9.2.5 Testing and maintenance .Carbon monoxide alarms shall be maintained and tested in accordance with Section 908.7.5.**