

**FINAL EXPRESS TERMS
FOR
PROPOSED EMERGENCY BUILDING STANDARDS
OF THE
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
REGARDING THE CHANGES TO THE FOLLOWING CALIFORNIA CODES:
2010 CALIFORNIA BUILDING CODE
2010 CALIFORNIA RESIDENTIAL CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PARTS 2 AND 2.5, RESPECTIVELY
(HCD EF 01/11)**

The Department of Housing and Community Development (HCD) proposes to make necessary changes to the 2010 editions of the California Building Code (CBC) and California Residential Code (CRC) as presented below:

LEGEND FOR EXPRESS TERMS:

1. **Existing California amendments or code language being modified:** *All such language shown in italics Arial 9 point; modified language is underlined or shown in ~~strikeout~~.*
 2. **Repealed text:** All language appears in ~~strikeout~~.
 3. **Amended, adopted or repealed language after public hearing:** All such language shown in double underline or ~~double-strikeout~~.
 4. **Notation:** Authority and Reference citations are provided at the end of each section.
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1. HCD proposes to amend Section 420.4 of the 2010 CBC as follows:

California Building Code (Title 24, Part 2)

420.4 Carbon monoxide alarms. [HCD 1, HCD 2 & HCD1-AC]

420.4.1 Carbon monoxide alarms in new construction. ~~For new construction, an approved carbon monoxide alarm shall be installed in dwelling units and in sleeping units within which fuel-burning appliances are installed; and in dwelling units that have attached garages.~~ Newly constructed Group R occupancies located in a building containing a fuel-burning appliance or a building that 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 shall be installed and maintained in accordance with NFPA 720 and the manufacturer's instructions. An open parking garage, as defined in the California Building Code, or an enclosed parking garage ventilated in accordance with the California Mechanical Code shall not be deemed to be an attached garage.

Exception: Sleeping units or dwelling units that do not themselves contain a fuel-burning appliance or have an attached garage, but that are located in a building with a fuel-burning appliance or an attached garage, need not be provided 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; and
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 equipped with a common area carbon monoxide detection system that includes all enclosed common area spaces.

420.4.1.1 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.

420.4.1.12 Power supply. ~~For new construction, required e~~Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery back-up. Alarm wiring shall be directly connected to the permanent building wiring without a disconnecting switch other than as required for overcurrent protection.

Exceptions:

1. ~~In dwelling units w~~Where there is no commercial power supply, the carbon monoxide alarm may be solely battery operated.

2. ~~In existing dwelling units, a carbon monoxide alarm is permitted to be solely battery operated where repairs or alterations do not result in the removal of wall and ceiling finishes or there is no access by means of attic, basement or crawl space.~~

3. ~~2.~~ Other power sources recognized for use by NFPA 720.

420.4.1.2 3 Interconnection. Where more than one carbon monoxide alarm is required to be installed within the dwelling unit or within a sleeping unit, the alarm shall be interconnected in a manner that activation of one alarm shall activate all of the alarms in the individual unit.

Exception: ~~Interconnection is not required in existing dwelling units or within sleeping units where repairs do not result in the removal of wall and ceiling finishes, there is no access by means of attic, basement or crawl space, and no previous method for interconnection existed.~~

420.4.2 Where required in existing dwellings or sleeping units. ~~Where a permit is required for alterations, repairs or additions exceeding one thousand dollars (\$1,000), existing dwellings or sleeping units that have attached garages or fuel-burning appliances shall be provided with a carbon monoxide alarm in accordance with Section 420.4.1. Carbon monoxide alarms shall only be required in the specific dwelling unit or sleeping unit for which the permit was obtained.~~

420.4.3-1.4 Alarm requirements. ~~Single and multiple station carbon monoxide alarms shall be listed as complying with the requirements of UL 2034. Carbon monoxide detectors shall be listed as complying with the requirements of UL 2075. Carbon monoxide alarms and carbon monoxide detectors shall be installed in accordance with this code, the current edition of NFPA 720 "Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment" and the manufacturer's installation instructions. Other carbon monoxide alarm and detection devices as recognized in NFPA 720 are also acceptable. No person shall install, market, distribute, offer for sale, or sell any carbon monoxide device in the State of California unless the device and instructions have been approved and listed by the State Fire Marshal.~~

Carbon monoxide alarms required by Sections 420.4.1 and 420.4.2 shall be installed and maintained in the following locations:

1. Outside of each separate dwelling unit sleeping area in the immediate vicinity of the bedroom(s).

2. On every level of a dwelling unit including basements.

3. ~~For~~ Group R-1 Occupancies only.

a. On the ceiling of every sleeping units with permanently installed fuel-burning appliances, or other locations within the sleeping unit in compliance with the manufacturer's installation instructions.

420.4.3.1.5 Multiple-purpose alarms. Carbon monoxide alarms combined with smoke alarms shall comply with Section 420.4, all applicable standards, and requirements for listing and approval by the Office of the State Fire Marshal, for smoke alarms.

420.4.4.1.6 Visible alarms. In buildings meeting the definition of "COVERED MULTIFAMILY DWELLINGS" containing covered multifamily dwellings as defined in accordance with Chapter 11A, and with fuel-burning appliances and/or attached garages as described in Section 420.4.1, all required carbon monoxide alarms shall be provided equipped with the capability to support visible alarm notification appliances in accordance with NFPA 720 and Chapter 11B.

420.4.2 Carbon monoxide alarms in existing dwellings or sleeping units. Existing Group R occupancies located in a building with a fossil fuel-burning heater or appliance, fireplace, or an attached garage shall have single station carbon monoxide alarms installed in accordance with this section. 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 California Building Code, or an enclosed parking garage ventilated in accordance with the California Mechanical Code shall not be deemed to be an attached garage.

Exception: Sleeping units or dwelling units that do not themselves contain a fossil fuel-burning heater or appliance, fireplace, or an attached garage, but that are located in a building with a fossil fuel-burning appliance or an attached garage, need not be provided 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; and
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 equipped with a common area carbon monoxide detection system, carbon monoxide detector or combination detector in the same space as permanently installed fuel burning appliance(s).

420.4.2.1 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.

420.4.2.2 Existing dwellings or sleeping units requiring a permit. When a permit is required for alterations, repairs or additions with a total cost or calculated valuation exceeding one thousand dollars (\$1,000), existing dwellings or sleeping units with a fossil fuel-burning heater or appliance, fireplace, or an attached garage shall have a carbon monoxide alarm installed in accordance with Section 420.4.2. Carbon monoxide alarms shall only be required in the specific dwelling unit or sleeping unit for which the permit was obtained.

420.4.2.3 Existing dwellings or sleeping units not requiring a permit (no construction taking place). Pursuant to Health and Safety Code Section 17926, a carbon monoxide alarm(s) shall be installed in every existing dwelling unit or sleeping unit with a fossil fuel-burning heater or appliance, fireplace, or an attached garage as follows:

420.4.2.3.1 Carbon monoxide alarms on or after July 1, 2011. Carbon monoxide alarms shall be installed in accordance with Section 420.4.2 in existing detached single family dwellings or sleeping units intended for human occupancy that have a fossil fuel-burning heater or appliance, fireplace, or an attached garage. Carbon monoxide alarms in existing buildings are permitted to be solely battery operated or plug-in type with battery back-up in areas where no construction is taking place.

420.4.2.3.2 Carbon monoxide alarms on or after January 1, 2013. Carbon monoxide alarms shall be installed in accordance with Section 420.4.2 in all other existing dwelling units intended for human occupancy as defined in Health and Safety Code Section 13262(b) that have a fossil fuel-burning heater or appliance, fireplace, or an attached garage. Carbon monoxide alarms in existing buildings are permitted to be solely battery operated or plug-in type with battery back-up in areas where no construction is taking place.

420.4.2.4 Power supply. Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with battery back-up. Alarm wiring shall be directly connected to the permanent building wiring without a disconnecting switch other than as required for overcurrent protection.

Exceptions:

1. In existing dwelling units where there is no commercial power supply, the carbon monoxide alarm may be solely battery operated.
2. In existing dwelling units, a carbon monoxide alarm is permitted to be solely battery operated or plug-in with a battery backup where repairs or alterations do not result in the removal of wall and ceiling finishes.
3. In existing dwelling units, a carbon monoxide alarm is permitted to be solely battery operated or plug-in with battery backup where repairs or alterations are limited to the exterior surfaces 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.
4. In existing dwelling units, a carbon monoxide alarm is permitted to be solely battery operated or plug-in with battery backup when work is limited to the installation, alteration or repair of plumbing or mechanical systems or the installation, alteration or repair of electrical systems, which do not result in the removal of interior wall or ceiling finishes exposing the structure.
5. Other power sources recognized for use by NFPA 720.

420.4.2.5 Interconnection. Where more than one carbon monoxide alarm is required to be installed within the dwelling unit or within a sleeping unit, the alarm shall be interconnected in a manner that activation of one alarm shall activate all of the alarms in the individual unit.

Exceptions:

1. In existing dwelling units or within sleeping units, interconnection is not required where repairs do not result in the removal of wall and ceiling finishes and no previous method for interconnection existed.
2. In existing dwelling units, carbon monoxide alarms are not required to be interconnected where no construction is taking place.
3. In existing dwelling units, carbon monoxide alarms are not required to be interconnected where repairs or alterations are limited to the exterior surfaces 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.
4. In existing dwelling units, carbon monoxide alarm are not required to be interconnected when work is limited to the installation, alteration or repair of plumbing or mechanical systems or the installation, alteration or repair of electrical systems, which do not result in the removal of interior wall or ceiling finishes exposing the structure.

420.4.2.6 Alarm requirements. No person shall install, market, distribute, offer for sale, or sell any carbon monoxide device in the State of California unless the device and instructions have been approved and listed by the State Fire Marshal.

Carbon monoxide alarms required by Section 420.4.2 shall be installed and maintained in the following locations:

1. Outside of each separate dwelling unit sleeping area in the immediate vicinity of the bedroom(s).
2. On every level of a dwelling unit including basements.
3. Group R-1 Occupancies only.
 - a. On the ceiling of every sleeping unit or other locations within the sleeping unit in compliance with the manufacturer's installation instructions.

NOTE: Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17926, 17926.1, 17926.2, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1. Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874 and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

2. HCD proposes to amend Section R315 of the 2010 CRC as follows:

California Residential Code (Title 24, Part 2.5)

SECTION R315 CARBON MONOXIDE ALARMS

R315.1 Carbon monoxide alarms in new construction. For new construction, an approved carbon monoxide alarm shall be installed in *dwelling units and in sleeping units* within which *fuel-burning appliances* are installed and in dwelling units that have attached garages. 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.

R315.1.1 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.

R315.1.4 2 Power supply. ~~For new construction, required e~~Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery back-up. Alarm wiring shall be directly connected to the permanent building wiring without a disconnecting switch other than as required for overcurrent protection.

Exceptions:

- ~~1. In dwelling units w~~Where there is no commercial power supply the carbon monoxide alarm may be solely battery operated.
- ~~2. In existing dwelling units a carbon monoxide alarm is permitted to be solely battery operated where repairs or alterations do not result in the removal of wall and ceiling finishes or there is no access by means of attic, basement or crawl space.~~
2. Other power sources recognized for use by NFPA 720.

R315.1.2 3 Interconnection. Where more than one carbon monoxide alarm is required to be installed within the dwelling unit or within a sleeping unit the alarm shall be interconnected in a manner that activation of one alarm shall activate all of the alarms in the individual unit.

Exception:

- ~~1. Interconnection is not required in existing dwelling units where repairs do not result in the removal of wall and ceiling finishes, there is no access by means of attic, basement or crawl space, and no previous method for interconnection existed.~~

R315.2 Where required in existing dwellings. ~~Where a permit is required for alterations, repairs or additions exceeding one thousand dollars (\$1,000), existing dwellings or sleeping units that have attached garages or fuel-burning appliances shall be provided with a carbon monoxide alarm in accordance with Section R315.1. Carbon monoxide alarms shall only be required in the specific dwelling unit or sleeping unit for which the permit was obtained.~~

R315.3 1.4 Alarm requirements. ~~Single and multiple station carbon monoxide alarms shall be listed as complying with the requirements of UL 2034. Carbon monoxide detectors shall be listed as complying with the requirements of UL 2075. Carbon monoxide alarms and carbon monoxide detectors shall be installed in accordance with this code, the current edition of NFPA 720 "Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment" and the manufacturer's installation instructions. Other carbon monoxide alarm and detection devices as recognized in NFPA 720 are also acceptable. No person shall install, market, distribute, offer for sale, or sell any carbon monoxide device in the State of California unless the device and instructions have been approved and listed by the State Fire Marshal.~~

Carbon monoxide alarms required by Sections R315.1 ~~and R315.2~~ shall be installed and maintained in the following locations:

1. Outside of each separate dwelling unit sleeping area in the immediate vicinity of the bedroom(s).
2. On every level of a dwelling unit including basements.

R315.3.1.5 Multiple-purpose alarms. Carbon monoxide alarms combined with smoke alarms shall comply with Section R315 420-4, all applicable standards, and requirements for listing and approval by the Office of the State Fire Marshal, for smoke alarms.

R315.2 Carbon monoxide alarms in existing dwelling units and sleeping units. An approved carbon monoxide alarm shall be installed in existing dwellings having a fossil fuel-burning heater or appliance, fireplace or an attached garages. 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.

R315.2.1 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.

R315.2.2 Existing dwellings or sleeping units requiring a permit. When a permit is required for alterations, repairs or additions with a total cost or calculated valuation exceeding one thousand dollars (\$1,000), existing dwellings or sleeping units with a fossil fuel-burning heater or appliance, fireplace, or an attached garage shall have a carbon monoxide alarm installed in accordance with Section R315.2. Carbon monoxide alarms shall only be required in the specific dwelling unit or sleeping unit for which the permit was obtained.

R315.2.3 Existing dwellings or sleeping units not requiring a permit (no construction taking place) Pursuant to Health and Safety Code Section 17926, a carbon monoxide alarm(s) shall be installed in every existing dwelling unit or sleeping unit with a fossil fuel-burning heater or appliance, fireplace, or an attached garage as follows:

R315.2.3.1 Carbon monoxide alarms on or after July 1, 2011. Carbon monoxide alarms shall be installed in accordance with Section R315.2 in existing detached single family dwellings or sleeping units intended for human occupancy that have a fossil fuel-burning heater or appliance, fireplace, or an attached garage. Carbon monoxide alarms in existing buildings are permitted to be solely battery operated or plug-in type with battery back-up in areas where no construction is taking place.

R315.2.3.2 Carbon monoxide alarms on or after January 1, 2013. Carbon monoxide alarms shall be installed in accordance with Section R315.2 in all other existing dwelling units intended for human occupancy as defined in Health and Safety Code Section 13262(b) that have a fossil fuel-burning heater or appliance, fireplace, or an attached garage. Carbon monoxide alarms in existing buildings are permitted to be solely battery operated or plug-in type with battery back-up in areas where no construction is taking place.

R315.2.4 Power supply. Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery back-up. Alarm wiring shall be directly connected to the permanent building wiring without a disconnecting switch other than as required for overcurrent protection.

Exceptions:

1. In existing dwelling units where there is no commercial power supply, the carbon monoxide alarm may be solely battery operated.

2. In existing dwelling units, a carbon monoxide alarm is permitted to be solely battery operated or plug-in with battery back-up where repairs or alterations do not result in the removal of wall and ceiling finishes.

3. In existing dwelling units, a carbon monoxide alarm is permitted to be solely battery operated or plug-in with battery back-up where repairs or alterations are limited to the exterior surfaces 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.

4. In existing dwelling units, a carbon monoxide alarm is permitted to be solely battery operated or plug-in with battery back-up when work is limited to the installation, alteration or repair of plumbing or mechanical systems or the installation, alteration or repair of electrical systems, which do not result in the removal of interior wall or ceiling finishes exposing the structure.

5. Other power sources recognized for use by NFPA 720.

R315.2.5 Interconnection. *Where more than one carbon monoxide alarm is required to be installed within the dwelling unit or within a sleeping unit, the alarm shall be interconnected in a manner that activation of one alarm shall activate all of the alarms in the individual unit.*

Exceptions:

1. In existing dwelling units, interconnection is not required where repairs do not result in the removal of wall and ceiling finishes and no previous method for interconnection existed.

2. In existing dwelling units, carbon monoxide alarms are not required to be interconnected where no construction is taking place.

3. In existing dwelling units, carbon monoxide alarms are not required to be interconnected where repairs or alterations are limited to the exterior surfaces 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.

4. In existing dwelling units, carbon monoxide alarms are not required to be interconnected when work is limited to the installation, alteration or repair of plumbing or mechanical systems or the installation, alteration or repair of electrical systems, which do not result in the removal of interior wall or ceiling finishes exposing the structure.

R315.2.6 Alarm requirements. *No person shall install, market, distribute, offer for sale, or sell any carbon monoxide device in the State of California unless the device and instructions have been approved and listed by the State Fire Marshal.*

Carbon monoxide alarms required by Section R315.2 shall be installed in the following locations:

1. Outside of each separate dwelling unit sleeping area in the immediate vicinity of the bedroom(s).

2. On every level of a dwelling unit including basements.

NOTE: Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17926, 17926.1, 17926.2, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1. Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874 and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.
