

2011 Oregon Residential Specialty Code
Code Committee

SECTION R315
CARBON MONOXIDE ALARMS

Draft: July 8, 2010

Draft Synopsis: Added section R315.2.3 - "Combination Smoke/CO Alarms" and section R315.3.3 - Power source for "Combination smoke/CO alarms"

Format: ~~Strike-out~~ denotes deletion to 2009 IRC. Bold/underline denotes addition to 2009 IRC

R315.1 Carbon monoxide alarms/systems. For new construction, an approved single station carbon monoxide alarm or household carbon monoxide detection system shall be installed. ~~outside of each separate sleeping area in the immediate vicinity of the bedrooms in dwelling units. Carbon monoxide signal/initiating devices shall be located in each bedroom or within 15 feet outside of each bedroom door, within which fuel-fired appliances are installed and in dwelling units that have attached garages.~~ Bedrooms on separate floor levels in a structure consisting of two or more stories, shall have separate carbon monoxide alarms serving each story.

Comment [RSR1]: Attempting to both clearly allow and draw a distinction between: single station and household systems.

Comment [RSR2]: 2009 IRC uses this term in IRC section R315.3.

Comment [RSR3]: Nomenclature derived from NFPA 720, Definitions.

Comment [RSR4]: Modified from Balkema code change "51" to clearly require separate alarms for each affected story including open floor plans with a common atmosphere occurring between stories.

R315.2 Alarm requirements.

R315.2.1 Single station 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.

R315.2.2 Household carbon monoxide detection system requirements. 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 UL 2075.

Optional Text:

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 supervision station.

Comment [RSR5]: NFPA 720 does not appear to require "off-site" monitoring but rather addresses what is required if monitoring is elected. As such, this language seems overly restrictive.

R315.2.3 Combination smoke/carbon monoxide alarm requirements. Combination smoke/carbon monoxide alarms shall be listed as complying with UL 2034 and UL 217. See section R314 for additional requirements specific to the installation of smoke alarms.

R315.3 Power Source.

R315.3.1 Carbon Monoxide Alarms. Single station carbon monoxide alarms shall be battery operated, or receive their primary power source 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.

Comment [RSR6]: Clearly indicate that plug in devices are allowed . Also, attempting to achieve some level of permanence for plug in devices through "secure fastening."

R315.3.2 Carbon Monoxide Detection Systems. Required power supply sources for household carbon monoxide detection systems shall be in accordance with NFPA 720.

Comment [RSR7]: Nomenclature derived from NFPA 720, section 4.4.1.

R315.3.3 Combination smoke/carbon monoxide alarms. Combination smoke/carbon monoxide alarms shall receive their primary power from the building wiring when 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 those required for overcurrent protection. Smoke alarm features of combination smoke/carbon monoxide alarms shall be interconnected.

Comment [RSR8]: Mirrors R314.4 for smoke alarms as smoke alarms power source requirements are very specific.

Comment [RSR9]: Isolated smoke alarms as I'm not sure if CO alarms can be interconnected.

Exceptions:

- 1. Combination smoke/carbon monoxide alarms shall be permitted to be battery operated when installed in buildings without commercial power.**
- 2. Interconnection and hard-wiring of combination smoke/carbon monoxide alarms 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, unless there is an attic, crawl space or basement available which could provide access for hard wiring and interconnection without the removal of interior finishes.**

R315.4 Where required in existing dwellings. Where a new carbon monoxide source is introduced or work requiring a structural 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.

Comment [RSR10]: Text has approval of BCD policy shop.

Exception: Work involving 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, are exempt from the requirements of this section.

Comment [RSR11]: Same exception as for smoke alarms in R314. Text has approval of BCD policy shop.

Add standards to Chapter 44 as follows:

NFPA 720-2009 Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment 2009 Edition

UL 2034-2008 Third Edition of the Standard for single and Multiple Station Carbon Monoxide Alarms, with revisions through February 20, 2009

UL 2075 -2004 First Edition of the Standard for Gas and Vapor Detectors and Sensors, with revisions through September 28, 2007

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