

BY AUTHORITY

ORDINANCE NO. **650**
SERIES OF 2009

COUNCIL BILL NO. **630**
COMMITTEE OF REFERENCE:

Safety

A BILL

For an ordinance, amending the Building and Fire Code of the City and County of Denver

WHEREAS, The City Council of the City and County of Denver has found that in order to ensure the public safety, health and welfare of the Citizens of the City and County, it is essential to protect them from the dangers of carbon monoxide poisoning in residential structures by requiring installation of carbon monoxide detectors in dwellings and dwelling units as expeditiously as is reasonably possible.

NOW, THEREFORE, BE IT ENACTED BY THE COUNCIL OF THE CITY AND COUNTY OF DENVER:

Section 1. That Section 105.6.148, of the Denver Amendments to the 2006 edition of the International Fire Code as adopted as a part of the Denver Building and Fire Code is hereby enacted and added to read and be read as follows:

Section 105.6.148 Carbon monoxide alarms. A permit is required for the installation, relocation or removal of carbon monoxide alarms required under provisions of section 908.7. Such permit is required only when a building permit is required for other work done as specified in Section 908.7.1.

Section 2. That Section 106.2.11, of the Denver Amendments to the 2006 edition of the International Fire Code as adopted as a part of the Denver Building and Fire Code is hereby amended to read and be read as follows:

106.2.11 Townhouses and condominiums. Portable fire extinguishers shall be mounted on the exterior at each level stairway(s) or one extinguisher (rated at least 2A 10BC) within each residential unit. When mounted on the exterior, the property management/homeowner's association (HOA) shall be responsible for the care, maintenance and recharging, and use of the fire extinguisher, including inspection. The homeowner shall submit a report to the property management/HOA on an annual basis. Portable fire extinguishers shall be inspected and maintained in accordance with NFPA 10. The smoke and carbon monoxide alarm(s) within the residential units shall be tested and maintained in accordance with NFPA 72 and NFPA 720. The homeowner shall submit a report to the property management/HOA on an annual basis of each test and battery replacement. The property management/HOA shall maintain a log of the inspection/test reports submitted to that office and Denver Fire Department Inspection personnel will review that log prior to conducting the

1 inspection. If this information is not available, an inspection shall be made to determine that this
2 equipment is in compliance with this code.

3 **Section 3.** That Section 908.7, of the Denver Amendments to the 2006 edition of the
4 International Fire Code as adopted as a part of the Denver Building and Fire Code is hereby
5 enacted and added to read and be read as follows:

6 **Section 908.7 Carbon Monoxide detection and alarm systems.** Installation and maintenance of
7 carbon monoxide (CO) detectors and alarms in existing and proposed residential (R) occupancies
8 regulated by the International Building Code (IBC), and in those structures regulated by the
9 International Residential Code (IRC), shall comply with this section and the applicable provisions of
10 2009 NFPA 720. Wherever CO alarms are specified, combination smoke and CO alarms are
11 permitted.

12 908.7.1 When required. CO alarms shall be installed in dwelling units in single- and multi-family
13 buildings with a fuel-burning appliance or attached garage, or both, and to which any one or
14 more of the following apply:

- 15 1 The building is permitted for construction after July 1, 2009;
- 16 2 An addition containing a sleeping room is being added to the dwelling unit;
- 17 3 The dwelling unit is undergoing an interior remodel for which a permit is required;
- 18 4 The dwelling unit is undergoing the installation of a fuel-burning appliance for which a
19 building permit is required; or
- 20 5 The dwelling unit is going through a change in ownership or tenant occupancy.

21 908.7.2 Definitions. The following words, terms and phrases when used in this article, shall
22 have the meanings ascribed to them in this section, except where the context clearly indicates a
23 different meaning:

24 BATTERY BACKUP. The alarm device has a battery that powers the device when the power
25 provided through the building electrical system fails.

26 BATTERY-POWERED. CO alarm, powered solely by a primary battery, where the battery shall
27 provide power for all power requirements for a period of one year, battery is monitored for end-
28 of-life by producing an audible trouble signal and performs in accordance with the equipment
29 listing.

30 CENTRAL FUEL-BURNING APPLIANCE ROOM. A room containing a fuel burning appliance
31 serving multiple dwelling units, such as a boiler, fire place stove, furnace, or similar equipment,
32 with the potential to distribute CO to multiple dwelling units.

33 CARBON MONOXIDE (CO). A colorless odorless gas that is produced as a result of incomplete
34 burning of carbon-containing fuels.

1 CARBON MONOXIDE ALARM. A single- or multiple-station alarm responsive to CO, listed as
2 complying with UL 2034.

3 CARBON MONOXIDE DETECTION CONTROL UNIT. A component of the CO detection
4 system, provided with primary and secondary power sources, which receives signals from
5 initiating devices or other CO detection control units, and processes these signals to determine
6 part or all of the required CO detection system output function(s).

7 CARBON MONOXIDE DETECTOR. A device connected to an alarm control unit having a
8 sensor that responds to CO.

9 COMBINATION SMOKE AND CARBON MONOXIDE ALARM. A single- or multiple- station
10 alarm responsive to both smoke and CO where both sensing elements are contained within a
11 common unit as provided in the equipment listing.

12 FUEL-BURNING APPLIANCE. A device that burns solid, liquid, or gaseous fuel, or a
13 combination thereof.

14 HARD-WIRED. CO alarm installed by wiring directly to the building electrical system, with
15 battery backup, and not controlled by any disconnecting switch other than as required for over-
16 current protection.

17 INSTALLED. Fit into position and made ready, as set forth in the manufacturer's guidelines,
18 listing requirements and applicable standards, to perform the intended functions of detection,
19 notification, and annunciation.

20 MULTIPLE STATION CARBON MONOXIDE ALARM. A single-station CO alarm capable of
21 being interconnected to one or more additional alarms so that the actuation of one causes the
22 appropriate alarm signal to operate in all interconnected alarms.

23 OWNER. The owner of the dwelling, dwelling unit and/or rental unit, a mortgage or vendee in
24 possession, an assignee of rents, receiver, executor, trustee, or any other person, business, sole
25 proprietorship, partnership, association, or corporation directly or indirectly in control of a
26 building, structure or real property or their authorized agent.

27 PLUG-IN. CO alarm installed by plugging into an electrical outlet for its primary power; with
28 battery backup.

29 SINGLE-FAMILY DWELLING. Any improved real property used or intended to be used as a
30 residence and that contains one dwelling unit.

31 SINGLE STATION CARBON MONOXIDE ALARM. A detector comprising an assembly that
32 incorporates a sensor, control components, and an alarm notification appliance in one unit
33 operated from a power source either located in the unit or obtained at the point of installation.

34 SLEEPING ROOM. A room furnished with a bed and primarily used for sleeping purposes.

1 908.7.3 Installation. When required by 908.7.1, CO alarm and detection devices shall be
2 installed in accordance with 908.7.3.1 through 908.7.3.4.

3 908.7.3.1 CO alarms. CO alarms shall be installed in dwelling units in a central location on
4 every level, including basements, and exterior to and within 15 ft of every sleeping room
5 door.

6 Exception: CO alarms are not required in attics and crawl spaces of dwelling units.
7 Every sleeping room that contains a fuel-burning appliance shall also be provided a CO
8 alarm centrally located within the room. A single device is permitted to serve multiple criteria
9 on a single level, provided it meets all of the location requirements.

10 908.7.3.1.1 Existing buildings. CO alarms may be hard-wired, battery-powered, or plug-
11 in, and may be single or multiple station.

12 908.7.3.1.2 New buildings. CO alarms shall be multiple-station and hard-wired.

13 908.7.3.2 CO detectors. When required by 908.7.1, item 1, in buildings containing a dwelling
14 unit, a CO detector monitored by the building fire alarm system shall be installed in central
15 fuel-burning appliance rooms. Each CO detector shall be installed within 25 feet of the
16 appliance, be annunciated on its own zone, and when activated, shall initiate an alarm
17 condition.

18 Exception: One and two family dwellings and townhouses.

19 908.7.3.2.1 Additional CO detectors. CO detectors installed in addition to those required
20 by section 908.7.1 shall be monitored and shall function as required CO detectors,
21 subject to approval by the fire code official.

22 Exception: CO detection devices installed solely for the operation of exhaust fans
23 in parking garages.

24 908.7.3.3 Visual Notification. Visual notification shall be provided for CO alarms in new
25 dwelling units accessible to persons with disabilities.

26 Exception: Dwelling units where visual notification for smoke alarms is not required.

27 908.7.3.4 Permit required. All CO alarms and detectors shall be maintained in proper
28 working order. No such device shall be installed, relocated or removed without a permit
29 issued in accordance with, and as required by, 2008 IFCA Section 105.6.148.

30 Exception:

- 31 1. In single family and duplex dwellings, permits shall only be required for
32 new construction.

33 908.7.3.5 License required. Denver Fire Department license shall be required per Section
34 112.2.7 Fire alarm systems, for the design, installation, modification, inspection, and testing

1 of all CO alarms and detectors.

2 Exceptions:

- 3 1. Plug-in and battery-powered CO alarms replaced in existing buildings in
- 4 accordance with sections 908.7.3.1.1.
- 5 2. Existing hard-wired single- or multiple-station smoke alarms replaced
- 6 with combination smoke and carbon monoxide alarms in single family
- 7 and duplex dwellings.

8 **Section 4.** That Section R325, of the Denver Amendments to the 2006 edition of the
9 International Residential Code as adopted as a part of the Denver Building and Fire Code is hereby
10 enacted and added to read and be read as follows:

11 **Section R325 Carbon monoxide alarms.** Carbon monoxide alarms shall be installed per section
12 908.7 of the International Fire Code (as amended).

13 COMMITTEE APPROVAL DATE: 10/21/2009.

14 MAYOR-COUNCIL DATE: 10/27/2009.

15 PASSED BY THE COUNCIL November 9 2009

16 [Signature] - PRESIDENT

17 APPROVED: [Signature] - MAYOR Nov. 10 2009

18 ATTEST: [Signature] - CLERK AND RECORDER,
19 EX-OFFICIO CLERK OF THE
20 CITY AND COUNTY OF DENVER
21 [Signature]

22 NOTICE PUBLISHED IN THE DAILY JOURNAL Nov. 6, 2009; Nov. 13, 2009

24 PREPARED BY: Kerry A. Buckey _____ 6/19/2009

26 Pursuant to section 13-12, D.R.M.C., this proposed ordinance has been reviewed by the office of
27 the City Attorney. We find no irregularity as to form, and have no legal objection to the proposed
28 ordinance. The proposed ordinance is not submitted to the City Council for approval pursuant to §
29 3.2.6 of the Charter.
30

31 David R. Fine, City Attorney

32 BY: [Signature] Asst. City Attorney Date: 28 Oct 09

