

1 RCNY §28-02

CHAPTER 28 SMOKE DETECTING DEVICES AND SYSTEMS AND CARBON MONOXIDE DETECTING DEVICES AND SYSTEMS

§28-02 Required Carbon Monoxide Detecting Devices and Systems.

(a) Definitions.

- (1) The term “CO” means carbon monoxide.
- (2) The term “CO alarm” means a “carbon monoxide alarm” as defined in RS 17-14, and shall also mean a “carbon monoxide detecting device” as such term is used in the Subchapter 17 of Chapter 1, and Subchapter 2 of Chapter 2, of Title 27 of the Administrative Code of the City of New York. Such CO alarms may be combined with smoke detecting devices provided that the combined unit complies with the respective provisions of the administrative code, reference standards and departmental rules relating to both smoke detecting devices and CO alarms.
- (3) The term “dwelling unit” means one or more rooms in a dwelling or building that are arranged, designed, used or intended for use by one or more families, including such units in occupancy groups J-1 (hotels, motels, lodging houses, rooming houses, etc.), J-2 (apartment houses, apartment hotels, school dormitory buildings, etc.), and J-3 (one- and two-family dwellings, rectories, convents, group homes, etc.).
- (4) The term “fossil fuel” means coal, kerosene, oil, wood, fuel gases and other petroleum products.
- (5) The term “fuel gases” shall include, but not be limited to, methane, natural gas, liquefied natural gas and manufactured fuel gases.
- (6) The term “fossil fuel burning equipment” shall mean any furnace, boiler, water heater, fireplace, apparatus, appliance or device that burns fossil fuel, excluding household cooking appliances and household (Type 1) gas clothes dryers.

(b) Location of CO alarms.

- (1) In buildings containing dwelling units, including dwelling units classified in occupancy group J-1 (hotels, motels, lodging houses, rooming houses), J-2 (apartment houses, apartment hotels, school dormitory buildings) and J-3 (one- and two-family dwellings, rectories, convents, group homes), CO alarms shall be located as follows:
 - A. CO alarms shall be installed for the following affected dwelling units:
 - i. Every dwelling unit located within a building that contains any fossil fuel burning furnace, boiler, or water heater as part of a central system;
 - ii. Every dwelling unit located within a building served by a central fossil fuel burning furnace, boiler or water heater that is located in an adjoining or attached building.
 - iii. If not already provided for by (i) or (ii) above, every dwelling unit on the same floor as, the floor below, and the floor above any other fossil fuel burning equipment that is located within the same building; and
 - iv. If not already provided for by (i) or (ii) above, every dwelling unit on the same floor as, the floor below, and the floor above any enclosed parking that is located in the same building.
 - B. When a CO alarm is required by 28-02(b)(1)(A), such CO alarms shall be installed within fifteen feet of the primary entrance to any room used for sleeping purposes. Where the dwelling unit comprises only one room (as in hotels), the CO alarm shall be installed within such room.
 - C. In J-1 occupancies, the owner may in the alternative elect to install a line-operated zoned CO detecting system with central annunciation and central office tie-in. Such system shall provide a CO alarm:
 - i. in all public corridors and public spaces at intervals specified by the manufacturer;
 - ii. in every room or space that contains a fossil fuel burning furnace, boiler or water heater;
 - iii. in every room or space adjacent to and on the same floor as the fossil fuel burning furnace, boiler or water heater;
 - iv. in every dwelling unit on the same floor as, on the floor below, and the floor above a room that contains a fossil fuel burning furnace, boiler or water heater;
 - v. in every dwelling unit connected by ductwork or ventilation shafts to a room that contains a the fossil fuel burning furnace, boiler or water heater; and
 - vi. in every dwelling unit on the same floor as, the floor below, and the floor above any enclosed parking that is located in the same building.
- (2) In buildings classified in occupancy groups G and H-2, CO alarms shall be located as follows:
 - A. Occupied rooms and spaces. CO alarms shall be installed within such rooms or spaces where such rooms or spaces contain any fossil fuel burning equipment.
 - B. Sleeping rooms. CO alarms shall be installed within fifteen feet of the primary entrance to any room or space used for sleeping purposes in H-2 occupancies such as nursing homes, orphanages, and similar occupancies (except patient rooms in hospitals) located within a building containing any fossil fuel burning furnace, boiler, or water heater as part of a central system. Such CO alarms may be located in public corridors, provided that at least one CO alarm is located within 15 feet of the primary entrance to each sleeping room.
 - C. Non-occupied rooms and spaces. Supervised CO alarms shall be installed within such rooms or spaces where such rooms or spaces contain any fossil fuel burning equipment. However, in existing buildings classified in occupancy groups G and H-2 that are not substantially altered or improved as per § 28-02(d)(2)(A) of this rule, any required CO alarms may, at the option of the owner, be single-station CO alarms in compliance with the installation requirements of § 28-02(d)(2).

(c) Equipment Requirements.

(1) All CO alarms for occupancy groups J-1, J-2, J-3, G, and H-2 shall be in compliance with RS 17-13, however, for G and H-2 occupancies, the design professional may utilize CO alarms responding to a lower level of CO concentration (PPM) than the reference standard, subject to approval of the department and of the Fire Department of New York.

(2) For J-1 occupancies, all line-operated zoned CO detecting systems with central annunciation and central office tie-in shall also comply with the following:

A. The individual alarm that detects CO shall sound locally, and may, at the option of the owner, also sound other alarms on that zone or elsewhere in the building.

B. Each CO alarm shall report to a central station monitoring company approved by the Fire Department of New York as an "alarm signal" and shall be identified to the monitoring company as CO. CO alarm troubles shall be reported to the central station as a "trouble signal."

C. Such system shall be either:

i. powered and supervised by a fire alarm system, installed in accordance with RS 17-3, 3A, or 3B, and connected to a central station transmitter; such system shall comply with RS 17-14 §§ 5.3.7 and 5.3.9; or

ii. powered and supervised by a dedicated CO alarm system, installed in accordance with RS 17-3 and connected to a central station transmitter; such system shall comply with RS 17-14 § 5.3.9.

D. The CO alarms, control panels and central station transmitters of such systems must be approved by the Material Equipment Acceptance Division (MEA).

(3) For G and H-2 occupancies, except for existing buildings not substantially altered or improved as per § 28-02(d)(2)(A), supervised CO alarms for non-occupied rooms and spaces shall also comply with the following:

A. Each CO alarm shall sound locally within the non-occupied room or space;

B. Except where the CO alarm signal does not report to a central station monitoring company as provided for in ii. below, each CO alarm shall report to a central station approved by the Fire Department of New York as an "alarm signal" and shall be identified to the monitoring company as CO. CO alarm troubles shall be reported to the central station as a "trouble signal." Such system shall be either:

i. powered and supervised by a fire alarm system, installed in accordance with RS 17-3, 3A, or 3B, and in accordance with RS 17-14 § 5.3.7; or

ii. powered and supervised by a dedicated CO alarm system, installed in accordance with RS 17-3; however, such system is not required to transmit to a central station monitoring company provided that the system is continually monitored by full time on-site staff during periods that the building is occupied.

C. Such systems' CO alarms, and control panels must be approved by the Material Equipment Acceptance Division (MEA).

(d) Installation.

(1) Power source. All CO alarms shall be hard-wired, receiving their primary power from the building wiring, in compliance with RS 17-14 § 5.2.2, with secondary battery back-up in compliance with RS 17-14 § 5.2.4. Where more than one hard-wired CO alarm is required within the same dwelling unit, all such alarms shall be interconnected.

(2) Existing buildings. Buildings in existence on November 1, 2004, and buildings with work permits issued prior to November 1, 2004, may, in the alternative, be equipped with battery-operated CO alarms compliant with RS 17-14 § 5.2.3 or plug-in type CO alarms with a back-up battery compliant with RS 17-14 § 5.2.4, except where such buildings are substantially improved or altered on or after November 1, 2004.

A. A building shall be deemed to have been substantially improved or altered if:

i. 50 percent or more of the dwelling units in occupancy group J-1, J-2, or J-3 are improved or altered and the cost of such improvement or alteration exceeds the sum of \$25,000 per dwelling unit;

ii. 50 percent or more of the square footage of the structure is improved or altered for J-1, J-2, J-3, G, or H-2 occupancies and the cost of the improvement or alteration exceeds \$500,000; or

iii. there has been a change in the occupancy or use of the entire structure to J-1, J-2, J-3, G, or H-2 occupancies.

B. In applying the foregoing provisions where cost is the factor, items falling within the scope of minor alterations or ordinary repairs, as set forth in §§27-124 and 27-125 of the Administrative Code, thereby exempt from permit requirements based on §27-147, as well as any other cost associated with any matters that are not regulated by the Building Code, are not included within calculation of the cost.

C. Costs of alterations are not cumulative, provided any application filed with this department is signed off as satisfactorily completed prior to the filing of a subsequent application; and, if a Certificate of Occupancy is involved, that a final Certificate of Occupancy has been issued for the pertinent application.

D. Time for compliance. The CO alarms shall be operational in existing buildings in occupancy groups J-1, J-2, J-3, G, and H-2 by November 1, 2004; however, the commissioner may upon good cause shown extend the period of compliance to June 30, 2005.

E. Where a dwelling has existing hard-wired smoke detecting devices installed pursuant to 1 R.C.N.Y § 28-01(b)(1), combination smoke detecting device/CO alarms are not permitted unless the combination units are hard wired.

F. Extension of time for compliance.

i. Appeals to the commissioner for extension of the period of compliance shall be set forth on a form filed at the applicable borough office of the Department of Buildings, no later than December 1, 2004, and contain the

following information:

aa. Location of premises, block and lot, Building Department Application number, if any, Occupancy Classification, number of dwelling units, estimated number of CO alarms, type, and where they are to be installed.

bb. The hardship to be considered with regard to the delivery or installation of the equipment.

cc. The proposed time table for compliance.

dd. A copy of the signed contract for the purchase and/or installation of the system. (Cost figures may be deleted).

ii. The Commissioner will not consider "good cause" appeals unless all required annual boiler inspections for the building are filed and up to date and no open boiler violations exist and:

aa. The installation of the CO alarms is hard-wired into the building's electrical system in accordance with RS 17-14 § 5.2.2.; or

bb. The number of units in single ownership or management responsibility exceed 500, and a complete schedule for installation is submitted prior to December 1, 2004; or

cc. Special circumstances not covered by subdivisions (i) or (ii) above are involved.

iii. Notice of approved extensions for J-1, J-2, and J-3 occupancies are to be forwarded to the Commissioner of the Department of Housing Preservation and Development.

(3) Reference Standard. CO alarms for J-1, J-2, J-3, G, and H-2 occupancies shall be installed in accordance with RS 17-14.

(e) Filing requirements.

(1) Applications for the installation of any CO alarm system in J-1, G, or H-2 occupancies that connects to a fire alarm system or reports to a central station monitoring company shall be filed with the Department of Buildings and Fire Department of New York following the same administrative procedures as filing of fire alarm applications.

(2) Applications for the installation of any CO alarm system in G or H-2 occupancies that is required to be continually monitored may be filed under Directive 14 of 1975 provided:

i. the system is not connected to a fire alarm system; or

ii. the system does not report to a central station monitoring company.

(3) Applications for the installation of other hard-wired CO alarms shall be filed with the Bureau of Electrical Control where filing is required by the New York City Electrical Code.

(4) For existing buildings that are not substantially improved or altered, installation of single station CO alarms that receive primary power from batteries or that are plug-in type with back-up batteries does not require filing with the Department of Buildings.