Replace 13.7 through 13.7.11 with the following:

13.7 Smoke Alarms and Detectors, Permits, Massachusetts General Laws, Primary Power Sources, and Carbon Monoxide Protection Systems.

13.7.1 For systems regulated by this Code, the AHJ shall have the authority to require construction documents for all fire protection and carbon monoxide systems to be submitted for review and approval and a permit to be issued prior to the installation, rehabilitation, or modification. Further, the AHJ shall have the authority to require that full acceptance tests of the systems shall be performed in the AHJ's presence prior to final system certification.

13.7.2 Permits. Permits, where required, shall comply with Section 1.12.

13.7.2.1 For installations described in Section 13.7 governed by permits issued, the applicable code shall be determined based on the date of issuance stated on the permit.

13.7.2.2 No person shall shut off, disconnect, obstruct, remove, and/or impair a fire protection system or carbon monoxide protection system without first procuring a written permit pursuant to Section 1.12 as required by the AHJ.

13.7.3 Massachusetts General Laws.

13.7.3.1 For the purpose of compliance with M.G.L. c. 148, §§ 26E and 26F, on or after December 1, 2016, smoke alarms shall be installed in accordance with the applicable requirements of Section 13.7.

13.7.4 Smoke Detection.

13.7.4.1 General. Where fire warning equipment is required by this Code to be installed in a building, such equipment shall be installed in accordance with NFPA 70, NFPA 72: National Fire Alarm and Signaling Code and Section 13.7.

13.7.4.2 Low voltage system batteries for smoke detectors shall be maintained in accordance with applicable Sections of NFPA 72 by the owner, landlord or superintendent.

13.7.4.3 Heat Detection

13.7.4.3.1 The Head of the Fire Department shall be permitted to require the installation and interconnection of heat detectors in unheated open rear porches and stairways. Where such heat detector is required it shall be listed for such use.

13.7.5 Primary Power Source

13.7.5.1 Smoke alarms/detectors, and carbon monoxide alarms shall be permitted to have battery power as a primary source unless otherwise prohibited by applicable laws, codes, or standards.

13.7.5.1.1 Nonrechargeable, Nonreplaceable Battery Power Alarms/Detectors

(1) Photoelectric technology shall be required for smoke alarms and detectors

(2) A silence button shall be required on each alarm and detector device within its control panel

(3) Each smoke alarm and detector device shall be equipped with a nonrechargeable battery

(4) Each smoke alarm and detector device shall be equipped with a nonreplaceable battery

(5) All power requirements for all smoke alarms and detectors are met for at least 10 years of battery life, including weekly testing.

1.00: continued

(6) All power requirements for combination alarms with smoke/carbon monoxide shall be capable of powering the unit for its service life, including testing.

13.7.5.1.2 Battery Powered with Network Technology (wireless) Alarms/Detectors

(1) Photoelectric technology shall be required for smoke alarms/detectors

(2) All power requirements for all alarms and detectors are met for at least 1 year of battery life, including weekly testing.

13.7.5.1.3 Other Technologies and Nonrequired Devices

13.7.5.1.3.1 Where devices in Sections 13.7.5.1.1and 13.7.5.1.2 have been installed, and placed, alarms and detectors having other technologies and or additional devices shall be permitted as provided in Section 13.7.5.1.3.1(1) and (2).

(1) Other technologies that are part of the same unit shall be permitted with photoelectric technology.

(2) Nonrequired devices shall be permitted to be connected with required devices or installed within the same or different space, area, or location as provided in Table 13.7A, Table 13.7C and Table 13.7D, provided such devices have been installed in accordance with their applicable listings and have been tested, inspected and maintained pursuant to Section 10.4.

13.7.5.1.4 Types of Device.

13.7.5.1.4.1 The following types of device shall be required:

(1) A single station or multiple station alarm or;

(2) Detector or;

(3) A device as one unit with one or more technologies

(4) Types of devices listed in Section 13.7.5.1.4.1(1) through (3) shall be pursuant to Table 13.7B

13.7.5.1.4.2 Device Requirements.

13.7.5.1.4.2.1 The following device requirements shall comply with the following:

(1) Devices shall be placed pursuant to Table 13.7A and Table 13.7C as applicable.

(2) Single station or multiple station alarms shall meet standard ANSI/UL217 as provided in Table 13.7B

(3) Smoke detectors shall meet standard ANSI/UL268 as provided in Table 13.7B

(4) Devices provided in 13.7.5.1.4.1(1) through (3) with an integrally mounted heat detector shall meet the following standards as provided in Table 13.7B as applicable:

(a) Standard ANSI/UL 521 that covers heat detectors for fire protective signaling systems

(b) Standard ANSI/UL 539 that covers heat-actuated, single and multiple station heat alarms

(5) A combination device as a single unit with two or more technologies shall meet the following standards as provided in Table 13.7B and as provided below:

(a) ANSI/UL 217 and ANSI/UL 2034 for combination alarms with smoke/carbon monoxide technologies; (b) ANSI/UL 268 and ANSI/UL 2075 for combination detectors with smoke /carbon monoxide technologies.

(6) A device shall be permitted to be a single or multiple station alarm or detector with smoke and or heat detection and or carbon monoxide and or intrusion technologies within the same unit provided all of the conditions listed in Section 13.7.5.1.4.2.1(6) (a) and (b) for alarms and (b) and (c) for detectors are met:

(a) Combination devices with two or more technologies that are incorporated into one unit shall have simulated voice and tone alarm features which clearly distinguishes between two or more events such as carbon monoxide and smoke.

(b) Fire alarm signal shall take precedence, even when a non-fire alarm signal is initiated first.

(c) Detectors. Where combination detectors using smoke and carbon monoxide technologies are permitted to be installed such protection shall be accomplished by using such device.

(7) Such combination devices shall include both simulated voice and tone alarm features which clearly distinguishes between carbon monoxide and smoke notification, unless such system employs the following:

(8) Each such combination device produces a distinctive audile and visual alarm signal for smoke and carbon monoxide, in accordance with NFPA 72 and NFPA 720 and;

(9) For residential structure as defined, within each dwelling unit, a control unit or annunciator is installed displaying a distinctive alphanumeric message (digital or embossed) for smoke and carbon monoxide and;

(10) Where such control unit or annunciator is installed it shall be located in an accessible area within each dwelling unit and be visible at all times.

(11) For transient residential and institutional structures, such control unit or annunciator shall be located at the constantly attended location and shall be monitored.

1.00: continued

(12) Devices shall be permitted to be nonsupervised or supervised

Table 13.7A
Smoke Alarms and Detectors
Device, Placement, Power Supply, Type and Wiring
Household Fire Warning
For one and not more than two dwelling[1] units
Pre-1975
-Dwellings-
Pursuant to M.G.L. c. 148, §§ 26E and 26F

(Not substantially altered to constitute new)	
Device	(1) Smoke alarms/detectors installed shall require photoelectric technology.
Placement	(2) Smoke alarms/detectors shall be placed: (a) on every habitable level (b) on the basement level (c) on the ceiling of each stairway leading to the floor above, but not within each stairway, at the base of each stairway, including stairways to an unfinished/ unheated basement/cellar (d) on ceiling outside of each separate sleeping area (e) in common areas on ceilings
Power Supply	(3) Smoke alarms/detectors placed in the following areas pursuant to M.G.L. c. 148, § 26E: (a) shall be permitted to have either battery or, primary power pursuant to M.G.L. c. 148, § 26E for their power supply for alarms/detectors placed on every: (i) habitable level (ii) basement with exterior ingress/egress only (iii) on the ceiling of each stairway leading to the floor above, at the base of each interior stairway including stairways to an unfinished/unheated basement/cellar (iv) and on ceiling outside of each separate sleeping area (b) Smoke alarms/detectors that do not include a secondary power source and have a battery as its primary power source shall meet the power provisions and conditions as provided in Section 13.7.5.1
Type of Device	(4) Types of device shall be permitted to be a single station or multiple station alarm/detector, See Section 13.7.5.1.3
Type of Technology	(5) Technology (a) Photoelectric shall be required See Sections 13.7.5.1.1. and 13.7.5.1.2 (b) Other types of technologies with required photoelectric technology, See Section 13.7.5.1.3
Wiring	(6) Smoke alarms/detectors shall be permitted to be single station (not interconnected) within the dwelling unit (7) Smoke/Heat detectors shall be permitted to be interconnected in common areas and in basements

NOTE 1: A dwelling as used here means one or more units providing facilities for cooking, sanitary, living, sleeping and eating.
NOTE 2: For compliance with M.G.L. c. 148, § 26F in existing buildings, 527 CMR 1.00: 1.1 may be applicable.

1.00: continued

Table 13.7B
Listings for Smoke and Carbon Monoxide Alarms and Detectors

Smoke and Carbon Monoxide alarms and detectors shall be listed as provided below.		
Smoke Alarm and Detector	Heat Detection	Carbon Monoxide
ANSI/UL 217 covers electrically operated single and multiple station smoke alarms.	ANSI/UL 521 covers heat detectors for fire protective signaling systems.	ANSI/UL 2075 covers toxic and combustible gas and vapor detectors and sensors.
ANSI/UL 268 This Standard sets forth requirements for smoke detectors and mechanical guards to be employed in ordinary indoor locations	ANSI/UL 539 covers heat-actuated, single and multiple station heat alarms.	ANSI/UL 2034 covers electrically operated single and multiple station carbon monoxide (CO) alarms.
		Combination smoke/carbon monoxide alarms shall be listed and labeled in accordance with ANSI/UL 217 and ANSI/UL 2034.
		Combination smoke/carbon monoxide detectors shall be listed and labeled in accordance with ANSI/UL 268 and ANSI/UL 2075.

1.00: continued

Table 13.7C
Smoke Alarms and Detectors
Device, Placement, Power Supply, Type and Wiring
Household Fire Warning
For three or more dwelling units but less than six
Pre-1975
-Dwellings-
Pursuant to M.G.L. c. 148, §§ 26E and 26F

(Not substantially altered to constitute new)	
Device	(1) Smoke alarms/ detectors installed shall require photoelectric technology. Placement (2) Smoke alarms/ detectors shall be placed: (a) on every habitable level (b) on the basement level (c) on the ceiling of each stairway leading to the floor above, but not within the stair way, at the base of each stairway, including stairways to an unfinished /unheated basement/cellar (d) on ceiling outside of each separate sleeping area (3) Smoke detectors shall be placed in common areas on the ceiling (4) Heat detectors required by Section 13.7.4.4 shall be placed: (a) in open porches and stairs on the ceiling (b) in common areas on the ceiling
Power Supply	(5) Smoke alarms/detectors placed in the following areas pursuant to M.G.L. 148, § 26E: (a) shall be permitted to have either battery or, primary power pursuant to M.G.L. c. 148, § 26E for their power supply for alarms/detectors placed on every: (i) habitable level (ii basement with exterior ingress/egress only (iii) on the ceiling of each stairway leading to the floor above, at the base of each interior stairway including stairways to an unfinished/unheated basement/cellar (iv) and on ceiling outside of each separate sleeping area (b) Smoke alarms/detectors that do not include a secondary power source and have a battery as its primary power source shall meet the power provisions and conditions as provided in Section 13.7.5.1.1 (c) Common halls and basements shall have their power supply by primary power pursuant to M.G.L. c.148, § 26E
Type of Device	(6) Types of device shall be permitted to be a single station or multiple station alarm/detector, See Section 13.7.5.1.3
Type of Technology	(7) Technology (a) Photoelectric shall be required See Sections 13.7.5.1.1 and 13.7.5.1.2 (b) Other types of technologies with required photoelectric technology, See Section 13.7.5.1.3
Wiring	(8) Smoke alarms/detectors shall be permitted to be single station (not interconnected) within the dwelling unit (9) Smoke/heat detectors shall be interconnected in common areas and in basements

NOTE 1: A dwelling as used here means one or more units providing facilities for cooking, sanitary, living, sleeping and eating.
NOTE 2: For compliance with M.G.L. c. 148, § 26F in existing buildings, 527 CMR 1.00: 1.1 may be applicable.

13.7.6 Carbon Monoxide Detection.
13.7.6.1 General. For the purposes of M.G.L. c. 148, § 26F½, carbon monoxide detection shall be provided and installed in accordance with NFPA 720, Installation of Carbon Monoxide (CO) Detection and Warning Equipment and Section 13.7.6.

1.00: continued

13.7.6.2 Every owner, superintendent or landlord of every structure that employs carbon monoxide alarm protection by utilizing one or more of the carbon monoxide protection technical options listed in Section 13.7.7 equipped with a voice or annunciator as provided in Section 13.7.6.5.1.1 shall prepare a written emergency plan that is in effect and available to all personnel. The plan shall be presented to and approved by the Head of the Fire Department.

(1) The plan shall include at a minimum:

(a) The development of a policy and procedure as a means to communicate the immediate situation regarding the alarm to the fire department;

(b) An evacuation plan; and

(c) A list of emergency contact phone numbers of responsible parties.

(2) An annual review by the owner, superintendent or landlord of the plan with all employees, who shall be kept informed in respect to their duties and responsibilities under the plan;

(3) Systems installed in accordance with Section 13.7.6.5.1 shall include information within each room indicating evacuation procedures in the event of an alarm condition.

13.7.6.3 Annually, the owner, superintendent or landlord of every structure shall submit to the Head of the Fire Department an updated emergency plan, record of inspection, maintenance and testing on a form prescribed by the State Fire Marshal.

13.7.6.4 Terms. The terms used in this section shall have the meanings respectively assigned to them unless stated otherwise.

13.7.6.4.1 Adjacent Spaces. Any area, space, room, or dwelling unit located directly next to, below, or above any area space, room, or dwelling unit that contains fossil fuel burning equipment or enclosed parking. It shall not include closets, bathrooms, cabinets, or similar areas used for storage or utility purposes and temporarily occupied for activities relating to such storage or utility use.

13.7.6.4.2 Centralized Fossil Fuel Burning Equipment. A central heating plant, hot water heater, a combustion driven generator or fire pump, central laundry equipment, roof mounted air handling unit or similar equipment that emits carbon monoxide as a by-product of combustion and does not allow for air exchange between centralized fossil fuel burning equipment and dwelling units or common areas.

13.7.6.4.3 Combination Device. A device that employs more than one technology such as smoke and carbon monoxide within the same unit.

13.7.6.4.4 Daycare Facility. A facility licensed by the Commonwealth under M.G.L. c. 15D, § 5, 6, 7 or regulations by the Department of Early Education and Care as a Child Care Center, School Aged Child Care Program, or Family Child Care Home, including Large Family Child Care and Family Child Care Plus.

13.7.6.4.5 Dwelling Unit. As used in Table 13.7D means a single unit providing facilities for living and sleeping and used for residential purposes, unless specifically identified otherwise.

13.7.6.4.6 Enclosed Parking. A structure or an area or room, or floor or level thereof, enclosed within an overall building or structure or attached thereto that is designed or used for the parking of vehicles and does not comply with the minimum exterior wall opening requirements in the building code.

13.7.6.4.7 Fossil Fuel Burning Equipment. Any device, apparatus, or appliance which is designed or used to consume fuel of any kind in which such equipment emits carbon monoxide as a by-product of combustion.

13.7.6.4.8 Habitable. An area or space such as a cellar, basement, or attic that is designed, used, or equipped with furnishing for living purposes.

13.7.6.4.9 Intermittent Ignition Device. A device which ignites an automatic gas appliance to begin normal operation thereof and which is activated only at the time such automatic gas appliance is to be so ignited.

13.7.6.4.10 Institutional Structures. Any dwelling, building, or structure classified as use group I-1 through I-3, as defined in the building code and those unclassified occupancies that have the same characteristics as I-1 through I-3. Where there is a dispute regarding use group classification of a structure, a determination shall be made by the municipal or state building inspector having jurisdiction.

13.7.6.4.11 Residential Structures. Any dwelling, building, or structure classified as use group R-1 with less than six dwelling units or R-2 through R-5, as defined in the building code and those unclassified occupancies that have the same characteristics as an R-1 with less than six dwelling units or R-2 through R-5.

Where there is a dispute regarding use group classification of a structure, a determination shall be made by the municipal or state building inspector having jurisdiction.

1.00: continued

13.7.6.4.12 Roof Mounted Fossil Fuel Burning Equipment. Any fossil fuel burning equipment mounted on top of a structure that is used to condition any medium through heating or cooling.

13.7.6.4.13 Transient Residential Structures. Any dwelling, building, or structure classified as use group R-1 with six or more dwelling units, as defined in the building code and those unclassified occupancies that have the same characteristics as R-1 with six or more dwelling units. Where there is a dispute regarding use group classification of a structure, a determination shall be made by the municipal or state building inspector having jurisdiction.

13.7.6.5 Carbon Monoxide Installation. Carbon monoxide alarms shall be installed as provided in Section 13.7.6 and Table 13.7D in the following manner:

(1) One carbon monoxide alarm shall be installed on every habitable level of a dwelling unit with a sleeping area.

(2) One carbon monoxide alarm shall be installed in habitable portions of basements, cellars, and attics.

(3) One carbon monoxide alarm shall be installed within the immediate vicinity of a sleeping area but within 10 feet measured in any direction from the door to the sleeping area (bedroom).

(4) One carbon monoxide alarm shall be installed in each level of each dwelling unit in transient residential and institutional structures, with fossil fuel burning equipment or enclosed parking.

(5) One carbon monoxide alarm shall be installed in each room used by children for sleeping, learning, or participating in early education and care activities in daycare facilities.

(6) Carbon monoxide protection in Family Child Care Homes, Large Family Child Care and Family Child Care Plus facilities shall comply with Section 13.7.6.5(1), (2), and (3).

13.7.6.5.1 Voice or Annunciators.

13.7.6.5.1.1 Smoke and carbon monoxide technologies shall be permitted to be installed as one unit as a combination device. Combination devices shall include both simulated voice and tone alarm features which clearly distinguishes between carbon monoxide and smoke notification, unless such system employs the following:

(1) Each combination device produces a distinctive audile and visual alarm signal for smoke and carbon monoxide, in accordance with NFPA 72 and NFPA 720 and;

(2) For residential structure as defined, within each dwelling unit, a control unit or annunciator is installed displaying a distinctive alphanumeric message (digital or embossed) for smoke and carbon monoxide and;

(3) Where such control unit or annunciator is installed it shall be located in an accessible area within each dwelling unit and be visible at all times.

(4) For transient residential and institutional structures, such control unit or annunciator shall be located at the constantly attended location and shall be monitored.

1.00: continued

Table 13.7D
Carbon Monoxide Detection Requirements for Dwellings[1]

Device	(1) Carbon Monoxide Detection Devices.
Placement	(2) Carbon monoxide alarms shall be installed in the following locations: (a) on every level of a dwelling unit with a sleeping area; (b) in habitable portions of basements, cellars and attics; (c) installed within the immediate vicinity of a sleeping area but within ten feet measured in any direction from the door to the sleeping area [bedroom]. (3) Carbon Monoxide alarms placed in the following areas pursuant to M.G.L. c. 148, § 26F½: (a) shall be permitted to have either approved monitored battery-powered alarms or approved electrical wiring for their power supply pursuant to M.G.L. c. 148, § 26F½ placed: (i) on every level of a dwelling unit with or without a sleeping area; (ii) in habitable portions of basements, cellars and attics; (iii) within the immediate vicinity of a sleeping area but within ten feet measured in any direction from the door to the sleeping area [bedroom]; (iv) on every level in every dwelling unit of transient or institutional structures with fossil-fuel burning equipment or enclosed parking garage; (v) in each room used for sleeping or learning in daycare facilities; (vi) in locations (i) through (iii) for Family Child Care Homes, Large Family Child Care, and Family Child Care Plus facilities.
Power Supply	(4) Carbon monoxide alarms shall be powered as follows: (a) Battery powered, wireless appliances or an A/C (alternating current) plug-in with battery backup in accordance with NFPA 720 shall be installed in day care facilities and residential structures, as defined in this Section. (b) A/C primary power source with battery backup in compliance or wireless systems with secondary power in compliance with NFPA 720 shall be installed in transient residential or in institutional structures. (c) Carbon Monoxide alarms that do not include a secondary power source and have a battery as its primary power source shall meet the power provisions and conditions as provided in Section 13.7.5.1.
Type of Device	(5) Single or multiple station smoke alarms or combination smoke and carbon monoxide technologies in one unit shall be permitted per Sections 13.7.5.1.3 and 13.7.5.1.4.2
Technical Options	(6) In lieu of providing carbon monoxide alarm protection within each level of each dwelling unit, it shall be permitted to use one or more of the carbon monoxide protection technical options as provided in Section 13.7.7. However, notwithstanding the use of any alternative compliance option, carbon monoxide alarm protection shall also be installed in any dwelling unit that contains fossil fuel burning equipment.
Wiring	(7) Carbon monoxide alarms and detectors shall be permitted to be single station (not interconnected) within the dwelling unit.

NOTE 1: A dwelling as it is used here shall mean a single unit providing facilities for living and sleeping and used for residential purposes.

13.7.7 Technical Options. In lieu of providing carbon monoxide alarm protection within each level of each dwelling unit, it shall be permitted to use one or more of the carbon monoxide protection technical options as described in Section 13.7.7. However, notwithstanding the use of any alternative compliance option, carbon monoxide alarm protection shall also be installed in any dwelling unit that contains fossil fuel burning equipment.

(1) Type A. Carbon monoxide protection shall provide a visual or audible alarm in the rooms or areas containing the fossil fuel burning equipment. Such protection shall be monitored in accordance with NFPA 720. Such method of monitoring is to be determined at the discretion of the building owner. In accordance with NFPA 720, the retransmission of the signal shall be at the discretion of the Head of the Fire Department.

1.00: continued

(2) Type B. Carbon monoxide protection for areas or rooms of centralized fossil fuel burning equipment consisting of kitchen appliances equipped with an intermittent ignition device shall comply with 248 CMR Fuel/Gas Plumbing Code and NFPA 54. written certification shall be submitted to the Head of the Fire Department from a registered professional engineer licensed by the Commonwealth, certifying that the kitchen appliances meet 248 CMR and said NFPA 54.

(3) Type C. Carbon monoxide protection for areas or rooms with centralized fossil fuel burning equipment which employ an automatic integrated shutdown device which shall be directly connected to the fossil fuel burning equipment and an A/C primary power source with battery backup in compliance with NFPA 720 or low voltage or wireless systems in compliance with NFPA 720 that will cause a shut down to the fossil fuel burning equipment upon activation of a carbon monoxide device. The device must also provide an audible or visual alarm in the immediate area of the device and fossil fuel burning equipment. The fossil fuel burning equipment must be manually restarted after activation. A sign shall be mounted in the vicinity of the device with a minimum of 1 inch high letters in contrasting color with the following statement: "If the carbon monoxide device has activated, do not restart the equipment until serviced by a qualified technician".

Exception: Such shut down requirement shall not be applicable to systems that are part of an emergency or standby system required by any municipal, state or federal law or regulation, provided the carbon monoxide detection system shall be monitored in accordance with NFPA720.

(4) Type D. Carbon monoxide protection for adjacent spaces of structures, areas or rooms considered enclosed parking, shall employ listed carbon monoxide alarm protection meeting ANSI/UL 2075 or a low voltage or wireless system. Such installation shall provide a visual or audible alarm in the rooms or areas containing the fossil fuel burning equipment. Such protection shall be monitored in accordance with NFPA 720. Such method of monitoring is to be determined at the discretion of the building owner. In accordance with NFPA 720, the retransmission of the signal shall be at the discretion of the Head of the Fire Department.

(5) Type E. Carbon monoxide protection for enclosed parking shall employ, in the enclosed parking either:

(a) An automatic mechanical ventilation system that automatically operates upon detection of carbon monoxide in accordance with the building code, without exception or reduction and provides for a supervisory alarm at 50 parts per million (ppm) in accordance with NFPA 720. Such method of monitoring is to be determined at the discretion of the building owner in accordance with NFPA 720 and the retransmission of the signal shall be at the discretion of the Head of the Fire Department; or

(b) The enclosed parking has continuous mechanical ventilation at a minimum rate in accordance with the building code without exception or reduction. Such system shall employ a sensor to ensure the minimum airflow as designed is operating through the system. The sensor shall monitor direct airflow and shall be connected to the fire alarm panel as a supervisory alarm in accordance with NFPA 720. A registered professional engineer licensed by the Commonwealth shall provide written certification to the Head of the Fire Department that the subject enclosed parking meets the requirements of Type E.

(6) Type F. Carbon monoxide protection for roof mounted fossil fuel burning equipment that circulate air from said unit to common areas only, shall be equipped with the following: A duct carbon monoxide gas detection device shall be installed on the discharge side of the roof mounted air handling unit or the common areas on the floor closest to the initial supply discharge from the roof mounted air handling unit. All such devices shall be installed in accordance with the manufacturer's instructions. The carbon monoxide gas detection device shall automatically alarm upon detection of carbon monoxide at 50 parts per million (ppm) and provide for a supervisory alarm in accordance with NFPA 720. Such method of monitoring is to be determined at the discretion of the building owner in accordance with NFPA 720, and the retransmission of the signal shall be at the discretion of the Head of the Fire Department. Upon activation of the carbon monoxide detection device and supervisory alarm, the roof mounted fossil fuel burning equipment shall shutdown until manually reset.

Exception: Such shut down requirement shall not be applicable to systems that are part of an emergency or standby system required by any municipal, state or federal law or regulation.

(7) Type G. Carbon monoxide protection for roof mounted fossil fuel burning equipment that do not circulate air to any common area or dwelling unit, shall be equipped with the following.

(Reserved)

1.00: continued

(8) Type H. Carbon monoxide protection for certain institutional structures that contain fossil fuel burning equipment that circulates air to patient rooms, inmate rooms or common areas. Carbon monoxide protection for certain institutional structures classified as either use group I-2 or I-3, that contains fossil fuel burning equipment that circulates air to dwelling units occupied by patients or inmates may be equipped with type H protection if the following conditions are met:

(a) Such structure contains dwelling units occupied by a person or persons who are not capable of self preservation due to age, mental disability, medical condition, incarceration, restraint, or security; and

(b) The occupants are under constant supervision on a 24 hour basis.

13.7.7.1 Type H protection shall include a duct carbon monoxide gas detection device which shall be installed downstream of air filters, ahead of any branch connections in air supply systems of the fossil fuel air handling unit. All such devices shall be installed in accordance with the manufacturer's instructions. The carbon monoxide gas detection device shall automatically alarm upon detection of carbon monoxide at 50 parts per million (ppm) and provide for a supervisory alarm in accordance with NFPA 720. Such method of monitoring is to be determined at the discretion of the building owner in accordance with NFPA 720 and the retransmission of the signal shall be at the discretion of the Head of the Fire Department. Upon activation of the carbon monoxide detection device and supervisory alarm, the fossil fuel burning equipment shall shutdown until manually reset.

13.7.8 Fire alarm systems required by the building code shall be monitored.

Exception: Single and multiple station smoke alarms required by the building code in other than Groups R-1 and R-2 with more than 12 units. Smoke detectors in Group I-3 occupancies automatic sprinkler systems and single- and multi-station smoke in three through five family dwellings. Smoke detectors in patient sleeping rooms in occupancies in Group I-2.

13.7.8.1 In all cases, central stations and those operating approved remote/proprietary station fire alarm system supervising stations shall re-transmit alarm signals within 90 seconds of receipt, to the fire department having jurisdiction.

13.7.8.2 Identical control diagrams showing all devices in the system and identifying their location and function shall be maintained current and kept on file with the AHJ and shall be kept on site, adjacent to the fire alarm panel in a format and manner approved by the AHJ.

13.7.8.3 A copy of the final report required by the building code shall be filed with the fire code official and the building code official and an identical copy shall be maintained in an approved location at the building.

13.7.8.4 Fire department inlet connections shall be fitted with check valves, ball drip valves, and plugs with chains or frangible caps.

13.7.8.5 All signs required to identify fire protection equipment, equipment rooms and equipment locations shall be constructed of durable materials, be permanently installed, and be readily visible. Letters and numbers shall contrast with the sign back ground, shall be at least two inches in height, and shall have an appropriate width-to-height ratio to permit the sign to be read easily from a distance of ten feet. The sign and location shall be approved by the AHJ.

13.7.8.6 A-2 Nightclub Use as of January 1, 2007: New Construction, Change of Use, or Substantial Modification. The activation of any fire protection system element (signaling system, detection, sprinklering, etc.) shall automatically:

(1) Cause immediate illumination of all areas and components of the required means of egress, and additionally;

(2) Cause immediate full activation of all other house lighting; and

(3) Cause immediate stopping of any and all sounds and visual distractions (public address systems, entertainment and dance lighting, music, etc.) that conflict/compete with the fire protective signaling system. [See the building code] [See Chapter 1, of this Code Section 1.1.4 for maintaining these provisions]

Add 13.10 through 13.10.10.2

13.10 Inspection, Testing, and Maintenance

13.10.1 Application. The inspection, testing, and maintenance of single- and multiple-station alarms and household alarm systems shall comply with the requirements of this section.

13.10.1.1 Procedures that are required by other parties and that exceed the requirements of this section or NFPA 72 and NFPA 720 shall be permitted.

13.10.1.2 The requirements of Section 13.10 shall apply to both new and existing systems.

1.00: continued

13.10.2 Purpose.
13.10.2.1 The purpose for initial and reacceptance inspections is to ensure compliance and to ensure installation is in accordance with this Code and other required installation standards.
13.10.2.2 The purpose for periodic inspections is to assure that obvious damages or changes that might affect the alarm system operability are visually identified.
13.10.3 Deficiencies.
13.10.3.1 Responsibilities.
13.10.3.1.1 Tenants.
13.10.3.1.1.1 Tenants shall ensure that each alarm installed in the tenant's rental unit remains functional and is not disabled.
13.10.3.1.1.2 Tenants or occupants shall not cause or disable any such alarm system or part thereof.
13.10.3.1.1.3 If at any point the tenant believes that the alarm is not functional or malfunctioning, the tenant shall provide notice to the owner, landlord, superintendent or other owner's designated representative.
13.10.3.2 Owner, Landlord, Superintendent or Other Owner's Designee
13.10.3.2.1 Every owner, superintendent, landlord or designee shall, at a minimum, maintain, test, repair, or replace, if necessary, every alarm upon renewal of any lease term for any dwelling unit or on an annual basis, whichever is more frequent.
13.10.3.2.1.1 Such testing shall be documented by the person performing such inspection on a form designated by State Fire Marshal.
13.10.3.2.2 When repairs or alterations or additions are made to an existing alarm and system the owner, landlord, superintendent or other owner's designated representative shall be responsible for inspection, documentation of the actual repair or alternation and the testing of the alarm and system.
13.10.3.2.3 A written agreement shall be required documenting delegation of responsibilities provided in this section.
13.10.3.2.4 Where the building or system owner, landlord, superintendent or other owner's designated has delegated any responsibilities or an inspection, testing, repair or alternation has been completed, a copy of the written delegation and the report required by Sections 13.10.3.2.3 and 13.10.3.2.2 shall be provided to the AHJ upon request.
13.10.3.2.5 Occupant notification shall be required whenever an alarm system configured for releasing service is being serviced or tested.
13.10.3.2.6 The owner, landlord, superintendent or other owner's designated representative shall not cause or disable any such alarm system or part thereof.
13.10.4 Inspection.
13.10.4.1 For the purpose of compliance with M.G.L. c. 148, § 26F½ or to confirm compliance with M.G.L. c.148, § 26F, a visual inspection of smoke alarms shall be performed in accordance with Table 13.10.4, or more often if required by this Code or the AHJ.
13.10.4.2 The inspection maintenance for fire alarm and fire detection systems shall be in accordance with NFPA 72.

Table 13.10.4 Visual Inspection

Component	Initial Acceptance	Periodic Frequency	Method	Reference
1. All equipment	X	Sale and Transfer	Ensure there are no changes that affect equipment performance. Inspect for building modifications, occupancy changes, changes in environmental conditions, device location, physical obstructions, device orientation, physical damage, and degree of cleanliness.	10.4 13.7.1
2. Batteries and compartment	X	Sale and Transfer	Inspect for corrosion or leakage. Verify tightness of connections.	10.4 13.7.1
3. Device	X	Sale and Transfer	Inspect for expiration date of smoke alarm	10.4 13.7.1
4. Common Area	X	Annually Sale and Transfer	Inspect for compliance.	10.4 13.7.1

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13.10.5 Testing.
13.10.5.1 Initial Acceptance Testing.
13.10.5.1.1 All new alarms and systems required by this Code shall be inspected and tested in accordance with the requirements of this section.
13.10.5.2 Periodic Testing.
13.10.5.2.1 The owner, landlord, superintendent or other owner's designee shall, for any existing, new, or modified alarm and system test every alarm and system in accordance with its listing when requested by the AHJ.
13.10.6 Testing and Frequency.
13.10.6.1 Every owner, superintendent, or landlord shall, at a minimum, maintain, test, repair, or replace, if necessary, every alarm upon renewal of any lease term for any dwelling unit or on an annual basis, whichever is more frequent. See Section 13.10.3.1 for responsibilities.
13.10.6.2 Unless otherwise permitted by other sections of this Code, testing shall be performed in accordance with the schedules in Table 13.10.4 or more often if required by the AHJ.
13.10.6.3 Alarms shall be replaced when they fail to respond to operability tests.
13.10.6.4 The testing, for fire alarm and fire detection systems shall be in accordance with NFPA 72.

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13.10.7 Replacement of Single and Multiple-Station Alarms.
13.10.7.1 Alarms shall not remain in service longer than 10 years from the date of manufacture, unless otherwise provided by the manufacturer's published instructions.
13.10.7.2 Combination smoke/carbon monoxide alarms shall be replaced when the end-of-life signal activates or 10 years from the date of manufacture, whichever comes first, unless otherwise provided by the manufacturer's published instructions.
13.10.7.3 Other than provide in Section 13.7.5.1.1 where batteries are used as a source of energy for smoke alarms or combination smoke/carbon monoxide alarms or single- and multiple-station smoke alarms, the batteries shall be replaced in accordance with the alarm equipment manufacturer's published instructions.
13.10.7.4 The owner, landlord, superintendent or other owner's designated representative shall be responsible to repair, replace or for the modification of an alarm and system.
13.10.8 Maintenance.
13.10.8.1 Maintenance of an alarm and system shall be conducted according to the manufacturer's published instructions and deficiencies shall be corrected as applicable in Section 10.4.
13.10.8.2 The maintenance for fire alarm and fire detection systems shall be in accordance with NFPA 72.
13.10.9 Records.
13.10.9.1 Permanent Records.
13.10.9.1.1 The owner, landlord, superintendent or other owner's designated representative shall be responsible for maintaining records for the life of the alarm and system, for examination.
13.10.10 Inspection, Testing, and Maintenance Records.
13.10.10.1 Records shall be retained until the next test and for 1 year thereafter.
13.10.10.2 Records shall be on a medium that will survive the retention period. Paper or electronic media shall be permitted.