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MEMORANDUM

To: Heads of Fire Departments

From: Peter J. Ostroskey
State Fire Marshal

Date: November 21, 2016

RE: **Regulation Updates:**
(1) 527 CMR 1.00:2.3.5 and 11.7
(2) 527 CMR 1.00:18
(3) 527 CMR 1.00:1.12.8.40.1.1 and 66.21.7 and rescission of 502 CMR 3.00
(4) A technical correction to 527 CMR 1.00, Table 13.7A

I am forwarding the following updated regulations which can also be found on our website at http://www.mass.gov/dfs. Below is a summary with links to highlighted code section changes however, these codes should be downloaded and reviewed in their entirety.

Summary of Amendments:

(1) **527 CMR 1.00:2.3.5 and 11.7 -** This set of amendments relate to the standards and specifications for the periodic testing, reconditioning or replacement of stored diesel or biodiesel fuel used to operate stationary generators employed for emergency or legally required standby power systems. The amendment provides more detail, including important technical specification standards that were referenced in the code, but are now being placed into the main body of the code for the ease of the end user.

- 2.3.5 ASTM Publications
- 11.7.5.1.2 Testing of diesel fuel

(2) **527 CMR 1.00:18 -** This amendment relates to current fire code provisions which require fire department access roads for all newly constructed buildings. The

amendment now excludes newly constructed one and two-family dwellings from the access road requirements. The amendment also creates alternative fire protection options for those newly constructed buildings that are required to include such access and provides clarity by referencing the State Building Code regulations for the technical specification relating to the method and manner of the installation of said options.

- 18.1.1.3 One and two family detached dwellings and their accessory structures exemptions from access road requirements

(3) **527 CMR 1.00:1.12.8.40.1.1 and 66.21.7 and the rescission of 502 CMR 3.00:** This companion set of amendments reconcile the regulations for the dismantling of underground tanks (UST's) and tank dismantling yards. The amendments eliminate from the fire code the reference to the State Fire Marshal's regulations, 502 CMR 3.00 which has been rescinded. This action to rescind 502 CMR 3.00 and carry much of the language to the fire code, 527 CMR 1.00, 66.21.7 was necessary as the result of changes to M.G.L. c. 21O, s. 1 which transferred the fire safety aspects of the dismantling yards from the State Fire Marshal to the Board of Fire Prevention Regulations.

- 1.12.8.40.1 Permit requirements
  66.21.7.6 through 66.21.7.8.12

(4) **A technical correction to 527 CMR 1.00, Table 13.7A.** The power supply requirements as referenced in Table 13.7(A)(3)(b) have been correctly stated as 13.7.5.1.1 rather than 13.7.5.1. Please make a note of this.

Further assistance is always available from the Division of Fire Safety on this and similar issues. If you have further questions, please contact the Code Compliance Help Desk at (978) 567-3375.

1.00: continued

1.15 Technical Assistance.

1.15.1 General.

1.15.1.1 As permitted by other sections of this *Code*, the AHJ shall be permitted to require a review by an approved independent third party with expertise in the matter, to be reviewed at the submitter's expense.

1.15.1.2 The independent reviewer shall provide an evaluation and, if appropriate, recommend necessary changes of the proposed design, operation, process, or new technology to the AHJ.

1.15.1.3 The AHJ shall be authorized to require design submittals to bear the stamp of a registered design professional.

1.15.1.4 The AHJ shall make the final determination as to whether the provisions of this *Code* have been met.

1.16 Notice of Violations and Penalties.

1.16.1 General.

1.16.1.1 Any person who mutilates, destroys, or removes posted orders or notices without the authorization of the AHJ, shall be deemed in violation of this *Code.*

1.16.2 Criminal Enforcement. Whenever the AHJ has reason to believe that a violation of this *Code* has occurred, written notification of said violation shall be issued in accordance with the provisions of M.G.L. c. 148.

1.16.3 Alternative Civil Enforcement Option. As an alternative to initiating criminal proceedings in a court of law under the provisions of M.G.L. c. 148, the AHJ, may initiate the alternative civil code enforcement option as provided in M.G.L. c. 148A by issuing the standardized notice of violation form as prescribed by M.G.L. c. 148A. It should be noted that the provisions of 1.16.3 may only be utilized by the Head of the Fire Department or his designee if the jurisdiction has designated a municipal hearings officer in accordance with M.G.L. c. 148A.

1.16.3.1 Any order or notice issued pursuant to this *Code* shall be served upon the owner, operator, occupant, or other person responsible for the condition or violation in accordance with the provisions of M.G.L. c. 148 or, if applicable, M.G.L. c. 148A, if the alternative civil enforcement option is utilized.

1.16.4 Penalties.

1.16.4.1 Any person who fails to comply with the provisions of this *Code* or who fails to carry out an order made pursuant to this *Code* or violates any condition attached to a permit, approval, or certificate shall be subject to penalties in accordance with M.G.L. c. 148 or, if applicable, M.G.L. c. 148A.

1.16.4.5 Failure to comply with the time limits of an abatement notice or other corrective notice issued by the AHJ shall, unless otherwise specified, result in a new and separate offense for each day that such violation continues.

Chapter 2 Referenced Publications. Modify this Chapter by modifying, adding or deleting and replacing the follow in Chapter 2:

Modify the following:
2.2 NFPA Publications.
NFPA 70, *The National Electrical Code, codified as 527 CMR 12.00: Massachusetts Electrical Code* (Amendments).

Delete and replace:
2.2 NFPA Publications.
NFPA 13, *Standard for the Installation of Sprinkler Systems*, 2013 edition.
NFPA 13D, *Standard for the Installation of Sprinkler Systems in One- and Two-family Dwellings and Manufactured Homes*, 2013 edition.

1.00: continued

NFPA 13R, *Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height*, 2013 edition.

NFPA 14, *Standard for the Installation of Standpipe and Hose Systems*, 2013 edition.

NFPA 20, *Standard for the Installation of Stationary Pumps for Fire Protection*, 2013 edition

NFPA 385, *Standard for Tank Vehicles for Flammable and Combustible Liquids*, 2012 edition

NFPA 495, *Explosive Materials Code*, 2013 edition

NFPA 498, *Standard for Safe Havens and Interchange Lots for Vehicles Transporting Explosives*, 2013 edition.

Add the following:

2.2 NFPA Publications.

NFPA 720, *Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment*, 2012 edition

Add the following:

2.3.1 ANSI Publication

ANSI Z21.11.2 – 2013 *Gas-fired Room Heaters*, Volume II, Unvented Room Heaters

ANSI Z-358.1-*American National Standard for Emergency Eyewash and Shower Equipment*

Add the following:

2.3.5 ASTM Publications.

ASTM D 86, *Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure.*

ASTM D 975-11b, *Standard Specification for Diesel Fuel Oils*

ASTM D 92, *Standard Test Method for Flash and Fire Points Cleveland Open Cup Tester*

ASTM D1265, *Standard Practice for Sampling Liquefied Petroleum (LP) Gases, Manual Method*

ASTM D 5305, *Standard Test Method for Determination of Ethyl Mercaptan in LP-gas Vapor*

ASTM D 6751-11b, *Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels*

ASTM D 7462-11, *Standard Test Method for Oxidation Stability of Biodiesel (B100) and Blends of Biodiesel with Middle Distillate Petroleum Fuel (Accelerated Method)*

Add the following:

2.3.17 U.S. Government Publications.

Code of Federal Regulations (CFR):

Title 29 CFR 1910.119, Occupational Safety and Health Administration (OSHA) *Process Safety Management of Highly Hazardous Materials*. Regulated hazardous materials which are listed in 29 CFR 1910.119: *Appendix A* and described in 29 CFR 1910.119(a)(1)(ii).

Title 29 CFR 1910.1200, Occupational Safety and Health Administration (OSHA) *Hazard Communication.*

Title 29 CFR 1910.1450, Occupational Safety and Health Administration (OSHA) *Occupational Exposure to Hazardous Chemicals in Laboratories.*

Title 33 CFR Part 126, *Handling of Dangerous Cargo at Waterfront Facilities.*

Title 40 CFR Part 60, *Standards of Performance for New Stationary Sources.*

Title 40 CFR Part 63, EPA (United States Environmental Protection Agency) *Chemical Accident Prevention Provisions*. Regulated hazardous materials included in 40 CFR 68.130, "*List of Substances*" with threshold quantities of regulated substances listed in the tables in 40 CFR 68.130.

Title 46 CFR Part 194, *Handling, Use, and Control of Explosives and Other Hazardous Materials*

Add the following:

2.3.18 Other Publications.

IME Safety Library Publication No. 20, *Safety Guide for the Prevention of Radio Frequency Radiation Hazards in the Use of Commercial Electric Detonators (Blasting Caps).*

American Association of State Highway and Transportation Officials (AASHTO). *Manual on Uniform Traffic Control Devices (MUTCD) Guidelines.*

California Technical Bulletin 117-2013 *Requirements, Test Procedure and Apparatus for Testing the Smolder Resistance of Materials Used in Upholstered Furniture.*

1.00: continued

Delete the following Section: **11.5.4**

Replace with the following title:
11.6 Rubbish Chutes, and Laundry Chutes.

Delete and replace with the following Section:
11.6.1.2 Instruction describing the size and type of waste which may be deposited in the chute shall be posted at each service opening.

Replace with the following Section:
11.6.2 Installation and Maintenance. Rubbish chutes and laundry chutes shall be installed and maintained in accordance with NFPA 82, *Standard on Incinerators and Waste and Linen Handling Systems and Equipment*, unless such installations are approved existing installations, which shall be permitted to be continued in service.

Delete the following Section: **11.7.3.2**

Replace with the following Sections:
11.7.5.1 Stationary generators used for emergency or legally required standby power shall be tested and maintained in accordance with NFPA 110 and NFPA 37. (*See* NFPA 25)

11.7.5.1.1 A fuel quality test shall be performed at least annually using tests approved by ASTM standards.

11.7.5.1.2 Diesel fuel shall be tested in accordance with ASTM D 975-11b, *Standard Specification for Diesel Fuel Oils,* or ASTM D 6751-11b, *Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels*, as approved by the engine manufacturer, using ASTM D 7462-11, *Standard Test Method for Oxidation Stability of Biodiesel (B100) and Blends of Biodiesel with Middle Distillate Petroleum Fuel (Accelerated Method)*. [25:8.3.4.1.1]

11.7.5.1.2.1 Where diesel fuel is found to be deficient in accordance with testing required in 11.7.5.1.2, the fuel shall be reconditioned or replaced, the supply tank shall be cleaned internally, and the engine fuel filter(s) shall be changed. [25:8.3.4.2]

11.7.5.1.2.2 After the restoration of the fuel and tank in 11.7.5.1.2.1, the fuel shall be retested every six months until experience indicates the fuel can be stored for a minimum of on year without degradation beyond that allowed in 11.7.5.1.2. [25:8.3.4.2.1]

11.7.5.2 Stationary generators required by this Code, the building code, or other NFPA codes and standards shall be maintained in accordance with NFPA 110.

Add the following Section:
11.8.6 Smoke control systems shall be maintained to ensure to a reasonable degree that the system is capable of controlling smoke for the duration required. The system shall be maintained in accordance with the manufacturer's instructions and the building code.

Add the following Section:
11.8.7 A routine maintenance and operational testing program shall be initiated immediately after the smoke control system has passed the acceptance tests. A written schedule for routine maintenance and operational testing shall be established.

Add the following Section:
11.8.8 A written record of smoke control system testing and maintenance shall be maintained on the premises. The written record shall include the date of the maintenance, identification of servicing personnel, and notification of any unsatisfactory condition and the corrective action taken, including parts replaced.

Add the following Section:
11.8.9 Dedicated smoke control systems shall be operated for each control sequence semiannually. The system shall also be tested under standby power conditions.

Delete the following Sections: **11.9** through **11.9.6**

Delete the following Section: **11.10.1**

Replace with the following Section:
11.10.2 Two-way radio communication enhancement systems, when required, shall be maintained in accordance with Chapter 24 of NFPA 72.

1.00: continued

Delete the following Section: **11.10.3***

Delete the following Sections: **11.12** through **11.12.3.3**

Chapter 12 Features of Fire Protection. Modify this Chapter by adding, deleting or replacing the following Sections in Chapter 12 as provided:

Replace with the following Section:
12.1 General. This Chapter shall apply to existing, permanent, or temporary buildings.

Delete the following Sections: **12.2*** through **12. 2.2**

Delete the following Sections: **12.3.1** through **12.3.2.2**

Replace with the following Section:
12.3.3.1 Required fire-resistive construction, including fire barriers, fire partition, fire walls, exterior walls due to location on property, fire-resistive requirements based on type of construction, draft-stop partitions, and roof coverings, shall be maintained as constructed or permitted under the building code.

Delete the following Sections: **12.3.3.3** through **12.3.3.3.2**

Delete the following Section: **12.4.6.2**

Delete the following Sections: **12.4.6.5.2** through **12.4.6.5.2.2**

Delete the following Sections: **12.5.1** through **12.5.2.5**

Delete the following Sections: **12.5.3*** through **12.5.3.2**

Delete the following Sections: **12.5.4*** through **12.5.4.7.2**

Delete the following Sections: **12.5.5*** through **12.5.5.9**

Delete the following Section: **12.5.6.1**

Delete the following Section: **12.5.6.2**

Delete the following Sections: **12.5.7*** through **12.5.7.3**

Delete the following Sections: **12.5.8** through **12.5.8.5**

Delete the following Sections: **12.5.9** through **12.5.9.2**

Delete the following Section: **12.6.1**

Replace with the following title:
12.6.3 Furniture and Mattresses

Add the following Sub-section:
12.6.3.1(3) The requirements of California Technical Bulletin 117-2013, *Requirements, Test Procedure and Apparatus for Testing the Smolder Resistance of Materials Used in Upholstered Furniture.*

Add the following Sections:
12.6.3.3 Seating shall not be purchased, leased or rented for use in a particular occupancy unless labeled or identified by the manufacturer.

12.6.3.3.1 The following shall be exempt:

(1) Cushions and pads intended solely for outdoor use.

(2) Any article which is smooth surfaced and contains no more than ½ inch of filling material, provided that such article does not have a horizontal surface meeting vertical surface.

(3) Articles manufactured solely for recreational use or physical fitness purposes, such as weight lifting benches, gymnasium mats or pads, side horses and similar articles.

1.00: continued

Add the following Section:
12.6.3.4 For spaces not protected by an approved sprinkler system stackable molded plastic seating shall comply with ASTM E 1822, as modified. The test shall consist of a single chair, or prototypes thereof.

Add the following Sections:
12.6.3.5 Labeled Furniture.

12.6.3.5.1 The manufacturer shall affix a label to each article of regulated furniture that indicates:
(1) The article of furniture is composed of materials that meet the performance test.
(2) The nationally recognized testing laboratory and standards or publications as provided in this *Code*.

12.6.3.5.2 The label shall be stitched or adhered onto each piece of regulated furniture.

Add the following Sections:
12.6.3.6 Documentation of Furniture.

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1.00: continued

Replace with the following Section:
14.15.2 Where approved, the emergency escape and rescue openings, security bars, grates, grilles, or similar devices shall be equipped with approved release mechanisms that are releasable from the inside without the use of a tool, key, special knowledge, or force greater than that which it takes for normal operation of the door or window.

Add the following Section:
14.16 Exterior Egress. Any fire escape or exterior stairway found to be in a state of deterioration or determined to be unsafe by the Head of the Fire Department shall be repaired immediately. Depending on the structural condition, a load test of any fire escape shall be conducted before it is returned to service.

Chapter 15 Fire Department Service Delivery Concurrency Evaluation. Delete Chapter 15 in its entirety.

Chapter 16 Safeguarding Construction, Alteration, and Demolition Operations. Modify this Chapter by adding or replacing the following Sections in Chapter 16 as provided:

Add the following Section:
16.1.1.1 Permits. Permits, where required, shall comply with Section 1.12.

Replace with the following Section:
16.1.2 A fire protection plan shall be established and submitted in accordance with the building code.

Add the following Section:
16.2.1.9 Heaters used in the vicinity of tarpaulins, canvas, or similar coverings shall be located a safe distance from coverings and other combustible materials. The coverings shall be securely fastened to prevent ignition of the covering or upsetting of the heater due to wind action on the covering or other material.

Add the following Section:
16.2.1.10 Tests for the presence of carbon monoxide shall be made by a qualified person within one hour after the start of each work shift and at least every three hours thereafter. If concentrations of carbon monoxide reach 30 parts per million by volume, tests shall be made more frequently to determine if there is a continuing increase of carbon monoxide concentration. Records of all tests, including the date, time, results obtained, and person making tests, shall be maintained for a seven-day period.

Add the following Section:
16.2.1.11 Each time a salamander is placed in operation, it shall be checked to ensure that it is functioning properly and its operation shall be checked periodically thereafter. When concentrations of carbon monoxide attain quantities greater than 50 parts per million (0.005%) to air volume at employee breathing levels, the salamander shall be extinguished, unless additional natural or mechanical ventilation is provided to reduce the carbon monoxide content to permissible limits.

Add the following Section:
16.2.1.12 No employee shall be permitted to enter the heated area until notification of such entry is given to another person located outside. Periodic checks of at least one every 15 minutes shall be made to ensure the safety of employees entering the heated area.

Add the following Section:
16.2.1.13 Fresh air shall be supplied in sufficient quantities to maintain the safety of employees. Where natural means of fresh air supply is inadequate (less than 16% oxygen by volume), mechanical ventilation shall be provided. Particular attention shall be given to confined spaces and pockets where heat and fumes may accumulate and employees may be present.

Replace with the following Section:
16.2.3.1.2 Only a one-day supply of heater fuel shall be stored inside a building in the vicinity of the temporary heating equipment.

1.00: continued

Add the following Sections:

16.9 Floor Finishing or Refinishing. *See* M.G.L. c. 94, § 329 relating to the prohibition of the sale and use of certain lacquer sealers (including additives) during the course of commercial wood floor finishing operations.

16.9.1 General. Floor finishing or refinishing requirements shall apply to persons, or other entities that engage in sanding, finishing, or refinishing wood floors, with or without compensation, in any building or structure. No person or entity shall apply or otherwise use any flammable floor finishing product during the course of any activity relating to the refinishing or finishing of the surface of a wood floor. This shall be in addition to the prohibitions of M.G.L. c. 94, § 329 relating to the sale and use of certain lacquer sealers during the course of commercial wood floor finishing operations.

16.9.2 Flammable Floor Finishing Product. Flammable floor finishing product, as used herein shall mean any clear or pigmented wood finish, formulated with nitrocellulose or synthetic resins to dry by evaporation and without chemical reaction, having a flashpoint below 100°F, and having a vapor pressure not exceeding 40 psi at 100°F, including clear lacquer sanding sealers.

16.9.3 Fire Safety Requirements. No person shall sand, strip or re-finish wood floors where such sanding, stripping or vapor would create an explosive atmosphere from dust or vapor that when dispersed could be ignited in the air without first complying with the following fire/explosion safety requirements. The requirements in (1) and (3) are not applicable if ventilation or a dust collection equipment system is used continuously to reduce vapor or dust from accumulating in concentrations that could cause ignition or explosion:

(1) **Sources of Ignition.** All fires, open flames or other sources of ignition, including smoking materials, spotlights, halogen lights or appliance pilot lights shall be eliminated from the area or unit.

(2) **Electrical Permit Required.** An electrical permit is required when connecting any floor-refinishing machine directly to the electrical panel in accordance with 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

(3) **Warning Signs.** Any person or other entity sanding or stripping floors in a building containing more than one dwelling unit shall post suitable warning signs indicating the danger of dust and fire/explosion hazard and shall be conspicuously posted on all doors and entrances to the building and/or unit. Such notice is to be printed in contrasting colors and shall have lettering at least two inches high and should state the name of the operator in charge, the date and time of the operation and the area or unit where work is to be performed. Warning signs shall be posted at least 24 hours prior to engaging in such work.

(4) No Smoking signs, featuring the international pictograph prohibiting smoking, must be posted at all entrances to the house or building before floor sanding or finishing begins and until 24 hours after the end of all floor sanding and finishing activities.

16.9.3.4 Waste Materials. A metal waste-can with a self closing cover shall be provided for all waste materials, including wood dust, and rags. All such materials shall be removed from the building and disposed of daily.

Chapter 17 Wildland Urban Interface. Delete Chapter 17 in its entirety.

Chapter 18 Fire Department Access and Water Supply. Modify this Chapter by adding, deleting or replacing the following Sections in Chapter 18 as provided:

Add the following Sections:

18.1.1.3 Existing and new one- and two-family detached dwellings and their accessory structures such as garages, carports, and sheds shall be exempt from the provisions of 18.2.3.

18.1.1.4 The fire apparatus access road plans must include an analysis and evaluation of fire apparatus maneuvers throughout the access roads created by swept path analysis and turn simulation software.

18.1.1.5 The fire apparatus access plans shall bear the seal and signature of the responsible registered professional engineer.

18.1.1.6 Nothing is this Section shall reduce the requirements established by cities or towns under M.G.L. 40A and planning and zoning by-laws.

1.00: continued

Replace with the following section:
18.1.3.1 Fire Apparatus Access. Plans, where required, for fire apparatus access roads shall be submitted to the fire department for review and approval prior to construction.

Add the following Section:
18.2.2.1.1.1 Approval of access roads shall be subject to the AHJ and capable of supporting the imposed loads of fire apparatus and shall be provided with an all-weather driving surface and shall be maintained as provided.

Replace with the following Section:
18.2.2.3 Access Maintenance. The owner or occupant of a structure or area, with required fire department access as specified in 18.2.2.1 or 18.2.2.2, shall notify the AHJ when the access is modified.

Replace with the following title:
18.2.3.2 Access to Buildings and Facilities.

Replace with the following section:
18.2.3.2.1.1 Where a townhouse as defined by the building code, is protected with an approved automatic sprinkler system that is installed in accordance with NFPA 13D or NFPA 13R, as applicable, the distance in 18.2.3.2.1 shall be permitted to be increased to 150 ft (46 m).

NON-TEXT PAGE

1.00: continued

Replace with the following section:
18.2.3.1.3* The provisions of 18.2.3.1 through 18.2.3.2.2.1 shall be permitted to be modified by the AHJ where any of the following conditions exists:
(1) Agricultural buildings having an area not exceeding 400 ft^2
(2) Other detached buildings having an area not exceeding 400 ft^2

Replace with the following section:
18.2.3.1.4 When fire department access roads cannot be installed due to location on property, topography, waterways, nonnegotiable grades, or other similar conditions, the AHJ shall be permitted to accept alternatives proposed by the owner of the building to allow additional fire protection features, up to and including the installation of an approved fire sprinkler system installed in accordance with the building code, cistern(s), additional fire hydrant(s), or similar devices or systems.

Replace with the following Section:
18.2.3.2.2.1 When buildings are protected throughout with an approved automatic sprinkler system that is installed in accordance with NFPA 13, the distance in 18.2.3.2.2 shall be permitted to be increased to 250 feet.

Replace with the following Section:
18.2.3.4.1.1 Fire department access roads shall have an unobstructed width of not less than 20 feet (6.1 m). Fire department access roads constructed in the boulevard-style shall be allowed where each lane is less than 20 feet but not less than ten feet when they do not provide access to a building or structure.

Add the following Section:
18.2.3.4.2.1 Permeable drivable surfaces, that meet loading of 18.2.3.4.2, are allowed when approved by the AHJ. When approved, the permeable surfaces shall be identified by a method acceptable to the AHJ.

Replace with the following Section:
18.2.3.4.3.1 The minimum inside turning radius of a fire department access road shall be 25 feet. The AHJ shall have the ability to increase the minimum inside turning radius to accommodate the AHJ's apparatus.

Replace with the following Section:
18.2.3.4.6.1 The gradient for a fire department access road shall not exceed 10%, unless approved in writing by the AHJ.

Add the following Section:
18.2.3.4.8 Travel in the Opposing Lane. The use of the opposite travel lane is prohibited in the design of all new fire apparatus access roads.

Delete the following Sections: **18.2.4.2.3** through **18.2.4.2.6**

Delete the following Sections: **18.3** through **18.3.1.1**

Delete the following Sections: **18.4** through **18.4.5.3**

Delete the following Sections: **18.5.7** through **18.5.7.3**

Chapter 19 Combustible Waste and Refuse. Modify this Chapter by adding the following Sections in Chapter 19 as provided:

Add the following title:
19.3 Special Hazards, Rubbish.

1.00: continued

Add the following Section:
19.3.1 Substances subject to spontaneous heating or ignition, such as oily or greasy rags, or other materials or combinations of materials, shall not be deposited in combustible containers or so kept or stored as to ignite combustible material. Such substances shall not be mixed with combustible rubbish or stored in the same containers. Materials subject to spontaneous ignition shall be kept in listed metal receptacles equipped with self-closing hinged covers designed to guard against the hazard of spontaneous combustion. Contents shall be emptied every night and disposed of properly.

Add the following Section:
19.3.1.2 Hot coals, cinders, hot scrap metal, and similar substances shall not be deposited in combustible containers, or kept or stored so as to ignite combustible material. Such substances shall not be mixed with combustible rubbish or stored in the same containers. Such substances shall be kept, handled, or stored inside buildings only in noncombustible receptacles approved by the Head of the Fire Department for that purpose and location. Such substances shall be kept, handled, or stored outside of building locations so that they cannot ignite buildings on the premises or adjacent premises and will not endanger people.

Add the following Section:
19.4 Containers which require mechanical assistance to be moved, shall be marked with the name and telephone number of the company or person from which emergency service to expedite movement of the container can be obtained.

Add the following Section:
19.5 Waste storage rooms shall not contain boilers or furnaces used for the central heating of buildings nor shall rooms with boilers or furnaces be used for waste storage of any kind. (*See* Section 10.19.5.1.)

Chapter 20 Occupancy Fire Safety. Modify this Chapter by adding, deleting or replacing the following Sections in Chapter 20 as provided:

Replace with the following Section:
20.1.1 Application. New and existing assembly occupancies shall comply with Section 20.1.

Delete the following Section: **20.1.1.2**

Replace with the following Section:
20.1.3.1 General. Interior finish shall be in accordance with the building code.

Delete the following Sections: **20.1.3.2** through **20.1.3.5.4**

Replace with the following Section:
20.1.4.1 General. Special amusement buildings, regardless of occupant load, shall meet the requirements for assembly occupancies in addition to the requirements of 20.1.4 and the building code.

Delete the following Sections: **20.1.4.2** through **20.1.4.6**

Delete the following Section: **20.1.4.7.2**

Replace with the following Section:
20.1.4.8 Interior Finish. Interior finish shall be in accordance with the building code.

Delete the following Section: **20.1.5.1.2**

Replace with the following Section:
20.1.5.1.3 Inspection of Door Openings. Door openings shall be inspected by the owner or their representative and be in an operable condition at all times.

Add the following Section:
20.1.5.4.5 Upholstered furniture shall be tested in accordance with the provisions of 12.6.3.

Delete the following Section: **20.1.5.5.2**

Delete the following Section: **20.1.5.5.3**

1.00: continued

1.12.8.39.2.3.1 A permit shall not be required for the transporting [interstate] of such fireworks or pyrotechnic materials if it is in accordance with U.S. DOT, Title 49 CFR.

1.12.8.39.2.4 Cannon Mortar.

1.12.8.39.2.4.1 Permits Requirements.

1.12.8.39.2.4.1.1 A permit for the supervision of the firing of a cannon shall not be issued unless the person holds a valid certificate.

1.12.8.39.2.4.3 Application.

(1) Application shall be submitted where the supervised firing is to take place not less than 15 days in advance of the firing date and shall state whether blank-fire or live-fire is utilized.

(2) Submission of this application is an assurance that the cannons to be fired will be inspected by the competent operator and meets all safety requirements prior to firing.

1.12.8.39.2.5 Permits Not Required.

1.12.8.39.2.5.1 Persons holding a Certificate of Competency for cannons shall be permitted to store less than 50 lbs. of black powder.

Table 1.12.8.39 Permits Required

Chapter 65	Explosives, Fireworks, Model Rocketry and Flame Effects	
Work/Activity	Issuing Authority	Code Section/M.G.L.
Black Powder/Blasting/Explosives/Model Rocketry/Pyrotechnics/Cannons/Flame Effects		
Storage and manufacturing of fireworks or explosives.	Head of Fire Department and State Fire Marshal	Section 65.9.2.1 M.G.L. c. 148, § 12 M.G.L. c. 148, § 13
A vehicle carrying explosive materials left unattended and parked in an authorized area.		
Transportation [Intrastate].	State Fire Marshal	Section 65.9.2.1 M.G.L. c. 148, § 13
Storage of in any magazine, building or structure.	Head of Fire Department and State Fire Marshal	Section 65.9.2.1
Supervision of the use of explosives, fireworks and cannon mortar.	Head of Fire Department	Chapter 65
Storage of solid propellant model rocket motors, reloading kits, or motor components > 50lbs. (23 kg) net weight at a residence.	Head of Fire Department	Section 65.6.1
Storage of high power model rocket motors, motor reloading kits, and pyrotechnic modules.		Section 65.8.2
The use of flame effects.		Section 65.4.2; 65.4.1.1

1.12.8.40 Flammable and Combustible Liquids.

1.12.8.40.1 Permit Requirement.

1.12.8.40.1.1 Transport a Tank to a Tank Yard.

1.12.8.40.1.1.1 To transport to an approved tank yard, the person requesting the permit shall provide the permit-granting authority with written approval for the designated site of disposition.

1.12.8.40.1.1.2 Receipt of Delivery.

1.12.8.40.1.1.2.1 Any person granted a permit to remove a tank shall, within 72 hours, provide a receipt for delivery of said tank to the site designated on the permit.

1.00: continued

1.12.8.40.1.2 Inspection of Tanks. The Head of the Fire Department shall periodically inspect existing above ground tank installations for safety, and if he determines that the installation or operation constitutes a hazard, he shall require unsafe tanks to be removed from service.

1.12.8.40.1.3 Removal of Tanks and Underground Piping.

1.12.8.40.1.3.1 Within 24 hours after the removal of an underground tank and underground piping, the owner shall acquire a measurement for the presence of a release of oil or hazardous materials to the environment where contamination is most likely to be present on the site and, if requested, submit such documented measurements to the AHJ.

1.12.8.40.1.3.2 If contamination is found, the owner shall immediately notify the Head of the Fire Department as well as the Department of Environmental Protection.

1.12.8.40.2 Abandoned Tanks and Piping.

1.12.8.40.2.1 Abandoned tanks and piping shall be removed.

1.12.8.40.2.2 Abandoned, as used here, shall mean any tank and piping without use, either filling or draw off for a continuous period:

(1) Any tank ≤10,000 gallons for a continuous period in excess of 12 months.

(2) Any above ground storage tank >10,000 gallons for a continuous period in excess of 60 months and in compliance with 502 CMR 5.00: *Permit Requirements and Annual Inspection of above Ground Storage Tanks or Containers of More than Ten Thousand Gallons' Capacity.*

Table 1.12.8.40 Permits Required

Chapters 66	Flammable and Combustible Liquids	
Work/Activity	Issuing Authority	Code Section/ M.G.L.
Construction, maintenance or use of any aboveground storage tank >10,000 gallons capacity, in aggregate.	State Fire Marshal	M.G.L. c. 148, § 37 502 CMR 5.00
To keep, store, manufacture, handle flammables or combustible liquids.	Head of Fire Department	Section 66.1.5
Installation, maintenance, and storage waste oil storage tanks.		Chapter 66
Storage of alcohol based hand rub preparations > ten gallons.		Chapter 66
Removal of tanks and underground piping.		Chapter 66
Abandoned tanks .		Chapter 66

1.12.8.41 Flammable Solids.

Table 1.12.8.41 Permits Required

Chapter 67	Flammable Solids	
Work/Activity	Issuing Authority	Code Section
Storage of Flammable solids >100 lbs.	Head of Fire Department	Section 67.1.2

1.12.8.42 Chapter 68 Reserved.

1.12.8.43 Liquid Petroleum Gases and Liquefied Natural Gas.

1.12.8.43.1 Application for a Permit.

1.12.8.43.1.1 An application for a permit shall be submitted by the person, firm or corporation who will make the installation or connection to an LP-gas storage container, in the name of the owner or occupant of the premises.

1.12.8.43.1.2 Notice of Completion and Inspection of Work.

1.00: continued

66.21.6.4.1.1 Tanks shall be located in a separate room from the main work area by a two hour fire rated enclosure.

66.21.6.4.1.2 The storage room shall be equipped with a fixed fire suppression system designed and installed in accordance with 13.8.

66.21.6.4.1.3 The storage room shall have an area not less than 110% of the largest tank capacity plus 10% of the aggregate amount of all other tanks in that room.

66.21.6.4.1.3.1 If water is utilized for suppression the containment area shall comply with the building code.

Delete the following Section: **66.21.7.1.5**

Replace with the following Section:
66.21.7.4.3.1 General. Underground tanks taken out of service shall comply with 310 CMR 80.00: *Underground Storage Tank (UST) Operator Training* and be emptied of liquids and residuals, rendered vaporfree, and safeguarded against trespassing in accordance with this Section and in accordance with NFPA 326 or in accordance with the requirements of the AHJ. The procedures outlines in this Section shall be followed when taking underground tanks temporarily out of service, closing them in place permanently, or removing them. (*See* Annex C of NFPA 30 for additional information 30.21.7.4.3.1.)

Replace with the following Section:
66.21.7.4.3.2 Temporary Closure. Underground tanks shall comply with 310 CMR 80.00: *Underground Storage Tank (UST) Operator Training* and be rendered temporarily out of service only when it is planned that will be returned to active service, closed in place permanently, or removed within an approved period not exceeding five years. The following requirements shall be met:

(1) Corrosion protection shall be maintained in operation.
(2) The vent line shall be left open and functioning;
(3) The tank shall be secured against tampering;
(4) All other lines shall be capped or plugged.

Replace with the following Section:
66.21.7.4.3.2.1 Tanks remaining temporarily out of services for more than five years shall be permanently closed in place or removed in accordance with Section 66.21.7.4.3.3 or 66.21.7.4.3.4, as applicable.

Replace with the following Section or Subsections:
66.21.7.4.3.3 Permanent Closure in Place. Underground tanks shall be permitted to be permanently closed in place if approved by the AHJ and in accordance with 310 CMR 80.00: *Underground Storage Tank (UST) Operator Training*. All of the following requirements shall be met:

(3) All flammable and combustible liquids and residues shall be removed from the tank, appurtenances, and piping and shall be disposed of in accordance with statutory and regulatory requirements and industry practices, using a written procedure.

Delete the following Section: **66.21.7.4.3.8**

Delete the following Section: **66.21.7.5**

Add: **66.21.7.6** through **66.21.7.8.12**
66.21.7.6 Application for Approval of Tank Dismantling Yards.

66.21.7.6.1 Underground steel storage tanks used for the storage of flammable liquids shall only be disposed of at tank dismantling yards approved by the State Fire Marshal.

66.21.7.6.2 Application for approval of a tank dismantling yard shall be made on a form approved by the State Fire Marshal (Form FP-295). Completed applications shall be submitted to: Department of Fire Services, Division of Fire Safety, PO Box 1025, 1 State Road, Stow, MA 01775.

66.21.7.7 Tank Dismantling Yard.

66.21.7.7.1 Each tank dismantling yard shall hold valid licenses or permits from any and all local city and town Boards, Agencies, Departments, where necessary to conduct operation for underground steel storage tank dismantling and storage.

1.00: continued

66.21.7.7.2 Each tank dismantling yard shall comply with all the provisions of regulation and be approved by the State Fire Marshal and endorsed by the Head of the Fire Department.

66.21.7.8 Operation of Tank Dismantling Yards.

66.21.7.8.1 No person at a tank dismantling yard shall accept an underground steel storage tank that in any way would be used for reuse or resale purposes.

66.21.7.8.2 Each approved tank dismantling yard shall maintain a written ledger listing all underground steel storage tanks received, a receipt of disposition thereof and any other data required by the Marshal.

66.21.7.8.3 All underground steel storage tanks shall be pumped out dry before transported to a tank dismantling yard.

66.21.7.8.4 The vapors in an underground steel storage tank may be made inert. Solid carbon dioxide (dry ice) crushed and distributed evenly over the greatest possible area in the amount of 1.5 (lbs) pounds per 100 gallons of tank capacity may be used to inert the tank.

66.21.7.8.5 The cleaning and residue of the underground steel storage tank must be treated as a hazardous waste and removed by a licensed hazardous waste or waste oil transporter, as required by the Massachusetts Department of Environmental Protection. The hazardous waste manifest number shall be recorded on the fire department permit.

66.21.7.8.6 The underground steel storage tank shall be purged with an inert gas, such as nitrogen or carbon dioxide, while all connecting lines to the tank including the vent, shall be removed.

66.21.7.8.7 Holes or openings shall be drilled or made in the tank when received at the tank disposal yard.

66.21.7.8.8 Each tank dismantling yard shall have a device capable of measuring flammable vapors. The device shall be properly calibrated, and employees shall be trained in its use.

66.21.7.8.9 No tank dismantling yard shall accept any tank that has not been purged of product and inerted.

66.21.7.8.10 All tanks shall be stored on the secured premises of an approved dismantling yard where they can be safeguarded from the general public.

66.21.7.8.11 If a tank yard finds product in a tank, such as sludge or other contaminated waste, the material shall be treated as a hazardous waste and removed by a hazardous waste or waste oil transporter in accordance with 310 CMR.

66.21.7.8.12 All underground steel storage tanks accepted at approved tank yards must be dismantled within two working days of the date of acceptance. No tanks may be stored in excess of 72 hours without approval of the head of the fire department.

Delete the following Sections: **66.23** through **66.23.17.2**

Add the following Sections:

66.28.1.1 Damage Protection.

(1) Access to loading bays shall have concrete bumpers or pipe guide rails installed, so that no part of any tank vehicle entering the bay can come in contact with the loading structure or its equipment.

(2) Sufficient clearance shall be provided under top loading facilities and its related structure to allow for the highest vehicle expected to pass through the structure.

66.28.1.2 Bottom Loading Facilities.

(1) Loading couplers shall incorporate a fracture point in the coupler itself to prevent damage to the vehicle connection if vehicle is moved prior to disconnecting the loading assembly.

1.00: continued

(2) Provisions shall be made to keep bottom loading assemblies and equipment from extending into traffic lanes when not in use.

Chapter 69 Liquefied Petroleum Gases and Liquefied Natural Gases. Modify this Chapter by adding, deleting or replacing the following Sections in Chapter 69 as provided:

Replace with the following Sections:
69.1.1.1 The storage, use, and handling of liquefied petroleum gases (LP-Gas) upstream from the outlet of the first stage regulator shall comply with the requirements of this chapter; NFPA 58, *Liquefied Petroleum Gas Code*; and Sections 60.1 through 60.4 of this *Code*.

Add the following Section:
69.1.1.4 Certificates. Certificates, where required, shall comply with Section 1.12.8.51 and Section 1.13 applicable.

Add the following Sections:
69.1.3 Definitions. The following terms and regulatory references shall have the meanings respectively assigned to them:

69.1.3.1 Abandoned. Any container, which has not been used either for filling or draw off of LP-gas, for a continuous period in excess of 12 months.

Add the following Section:
69.1.4 LP-Container, Filling, Shipment, Odorization, and Testing Requirements. If odorization is required, as provided in NFPA 58 Section 4.2.1, one of the testing thresholds required in Section 69.1.4.2(2) shall be completed and documented. The presence of the odorant shall be permitted thereafter by sniff testing each time the propane changes in the distribution network. If the amount of odorant in the propane is questionable by sniff testing or the records are not accepted by or made available to the AHJ as required in Section 69.1.4.3, the testing as prescribed in accordance with the Section 69.1.4.2(2) shall be repeated. If necessary, thresholds shall be met by adding additional odorant to obtain proper odorized propane levels as prescribed in Sections 69.1.4.2(1) or 69.1.4.2(2). In such situations where the propane odorant is questionable, immediate verbal notification shall be given to the AHJ and the State Fire Marshal, which shall be followed by written notification within 24 hours, documenting the date, time, and location of discovery and status of such event.

Add the following Section:
69.1.4.1 Railcar Shipments. Each railcar shipment of LP-gas intended for distribution within Massachusetts shall comply with the provisions in Section 69.1.4.2 (1). Each railcar shipment delivered for distribution shall be tested for odorization using one of the tests prescribed in section 69.1.4.2(2) and subsections (a), (b), (c).

Add the following Section:
69.1.4.2 Odorization Thresholds, Testing and filling of Containers:
(1) If ethyl mercaptan is used for odorization purposes, it shall be injected at a minimum rate of 1 lb. per 10,000 gallons of propane.
(2) For testing purposes, one of the following tests listed in (a), (b) or (c), shall be required to determine adequate ethyl mercaptan odorant levels equivalent to 1 lb. per 10,000 gallons of propane:
(a) Vapor Test using stain tubes resulting in a minimum of 5 ppm of ethyl mercaptan utilizing ASTM D 5305;
(b) Flash Vapor Test using stain tubes resulting in a minimum of 17 ppm of ethyl mercaptan utilizing ASTM D 5305;
(c) Liquid Test for analysis of volatile sulfurs using gas chromatography resulting in a minimum of 17 ppm of ethyl mercaptan utilizing ASTM D 1265.
(3) Newly filled tanks and containers shall be purged according to manufacturer's instructions.
(4) Newly installed tanks greater than 125 gallons shall comply with the following:
(a) Within two business days of the tank installation approval by the AHJ, such tank shall be filled with LP-gas; and

1.00: continued

(b) If the tank is not placed into service within 30 days of the tank installation approval date, such tank shall be tested by the LP-gas company in accordance with Section 69.1.4(2), prior to being placed into service; and

(c) Maintain records in accordance with Section 69.1.4.3 and report findings, if applicable, in accordance with Section 69.1.4.

Add the following Sections:

69.1.4.3 Records. Records of all testing required by this *Code* shall be maintained. The results shall be kept by both the shipper and user for a minimum of three years from the date of delivery.

69.1.4.3.1 Tests results shall be made available to the AHJ upon request.

Add the following Section:

69.1.4.4 Effective September 1, 2014, each person handling LP-gas in the quantities of 42 lbs. (ten gallons) or greater, shall be trained, at applicable level, in accordance with the Certified Employee Training Program (CETP) or other education at programs acceptable to the State Fire Marshal. Each person handling cylinders less than 42 lbs. shall receive annual training utilizing the program "Dispensing Propane Safely" published by the Propane Education and Research Council. Certificates of completion shall be maintained by the employer for three years and a copy of said certificate shall be given to the trainee at the completion of each program. Certificates of completion shall include: the date of completion, the course name and be signed by the instructor or provider. Such certificates shall be submitted to the AHJ upon request.

Add the following Sections:

69.1.4.5 Field Equipment Identification. All LP-gas installations of 125 gallons or greater shall be provided with a sign identifying the responsible party for the installation and maintenance of the LP-gas installation. The sign shall be installed in a plainly visible location. Such sign shall include the name and telephone number of the LP-gas supplier, plant installer, owner, or operator.

69.1.4.5.1 Emergency and Reporting Procedure. In situations where a gas leak results in imminent danger, immediate verbal notification shall be given to the 911 dispatch center. The AHJ shall receive written notification within 24 hours of said notification documenting the date, time, location of discovery, status and remediation of such event.

Add the following Section:

69.1.4.6 In situations where the AHJ has directed an LP-gas provider to take corrective action, the provider shall immediately respond verbally to the AHJ, as directed, such provider's response shall be followed by written notification, if requested, within 24 hours after resolution, documenting the date, time, and the location of the discovery and status of the LP-gas installation.

Replace with the following Section:

69.3.3.8 The distance measured with a three foot arc from the point of discharge of a container pressure relief valve to any building opening below the level of such discharge shall be in accordance with *Table 69.3.3.8*. [58:6.3.8]

Add the following Section:

69.3.12.6.3 The owner of the storage equipment shall be responsible for the installation of the LP-gas facility and for maintaining it in a safe operating condition.

Add the following Section:

69.3.12.6.4 No person shall install, remove, connect, disconnect, fill or refill any LP-gas container without permission of the owner of the container.

Add the following Section:

69.3.12.6.5 Only a trained individual complying with Section 69.1.4.4 shall install, remove, connect, disconnect, sell, fill, refill, deliver or permit to be delivered, or operate any LP-gas system utilizing containers of over 42 pounds (ten gallons) product capacity.

Add the following Section:

69.3.12.6.6 The State Fire Marshal may order the user of a system, in writing, to meet additional requirements:

(1) Where unusual conditions exist;

1.00: continued

(2) When it is necessary for the protection of life and property;
(3) Provided the additional requirements are within the intent and purpose of this *Code*.

Add the following Section:
69.3.13.4.4 "NO SMOKING" and "STOP ENGINE WHEN REFUELING" signs shall be displayed on the front and rear of each dispenser at the filling station. The signs shall have block letters at least one inch high with either red letters on a white background or white letters on a red background.

Add the following Section:
69.5.2.1.6 Areas used for the storage of containers or cylinders awaiting use or resale shall post a readily accessible and clearly visible warning sign stating "NO SMOKING" and "FLAMMABLE GAS" or otherwise indicate the contents of such containers or cylinders, such as "FLAMMABLE GAS - PROPANE" or "FLAMMABLE GAS -BUTANE".

REGULATORY AUTHORITY

527 CMR 1.00: M.G.L. c. 22D, § 4, c. 148, §§ 9, 9A, 10, 13, 25A, 25C, 25D, 26C, 26F½, 28, 28B, 35, 39A, 40, 46 and 58.

NON-TEXT PAGE

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 13.7.5.1.1* and *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.

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(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 13.7.5.1.1.*
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.