527 CMR BOARD OF FIRE PREVENTION REGULATIONS

527 CMR is amended by striking out chapters 1 through 11 and 13 through 50 and inserting, in place thereof, the following revised chapter:

527 CMR 1.00: MASSACHUSETTS COMPREHENSIVE FIRE SAFETY CODE

Section:
1.01: Title
1.02: Purpose
1.03: Scope
1.04: Adoption by Reference
1.05: Modifications to NFPA 1-2012 Edition

1.01 Title. 527 CMR 1.00, as referred to as "this *Code*", shall be known as the Massachusetts Comprehensive Fire Safety Code.

1.02 Purpose. The purpose and the intent of 527 CMR 1.00 is to prescribe minimum requirements and controls to safeguard life, property and public welfare from the hazards of fire and explosion created by the storage, handling or use of substances, materials or devices, or from conditions, or materials hazardous to life, property and the public welfare as prescribed in M.G.L. Chapters 22D and 148.

1.03 Scope. The scope of 527 CMR 1.00 includes, but is not limited to, the following in accordance with M.G.L. c. 22D and M.G.L c. 148 and as prescribed by M.G.L. c. 143 §96:

- **(1)** Rules and regulations for the keeping, storage, use, manufacture, sale, handling, and transportation or other disposition of the following:
  - **(a)** Gunpowder, dynamite, crude petroleum or any of its products, or explosive or flammable fluids or compounds, tablets, torpedoes or any explosives of a like nature, or;
  - **(b)** Any explosives, fireworks, firecrackers, or any substance having such properties that it may ignite, or generate flammable or explosive vapors or gases to a dangerous extent.
- **(2)** Rules and regulations to prescribe the location, materials and construction of buildings to be used for any of the purposes provided in 527 CMR 1.03 (1).
- **(3)** Rules and regulations to prevent or remedy any condition in or about any building, structure or other premises, or any ship or vessel which may tend to become a fire hazard or to cause a fire.
- **(4)** Rules and regulations to provide adequate safety requirements for the protection of the public in the event of a fire in or about any building, structure or other premises or any ship or vessel. Such rules shall require that any equipment, system or construction requirement relating to fire protection of persons or property within said building or structure, be installed in accordance with such applicable requirements as of the date of installation and shall be maintained in accordance with this *Code*.
- **(5)** Rules and regulations to provide for the safe storage, use, handling and manufacturing of corrosive liquids, oxidizing materials, toxic materials or poisonous gases.

1.04 Adoption by Reference. 527 CMR 1.00 adopts and incorporates, the provisions of (National Fire Protection Association) NFPA 1- 2012 edition as modified by 527 CMR 1.05.

1.05 Modifications to NFPA 1- 2012 Edition. NFPA 1- 2012 edition is modified, on a Chapter by Chapter basis, as follows:

Chapter 1 Administration.

Delete Chapter 1 in its entirety and revise to read as follows:

1.1 General Considerations. This *Code* shall apply to both new and existing conditions. Unless the provisions of this *Code* specify that a requirement shall apply to existing occupancies, conditions or systems, an installation completed prior to the effective date of this *Code* shall be deemed in compliance if the installation was made in accordance with the applicable code in effect at the time of the installation and was "approved" by the AHJ. Notwithstanding the provisions of Section 1.1, if any prior installation or condition exists which constitutes an imminent danger, the AHJ may require compliance with the provisions of this *Code*.

Applicable Massachusetts General Law and requirements of the 780 CMR: State Building Code also referred herein as the ("building code") and other specialized codes shall be adhered to in the design and construction of buildings, structures and equipment. The rules and regulations governed by Massachusetts General Law (M.G.L.) and other regulations of the State Building Code or other specialized code are not enforced by the AHJ, as defined in 527 CMR 1.00, but rather the appropriate enforcement official.

1.1.2 Construction Requirements for Buildings and Structures. Unless regulated by 527 CMR 1.03 (1), or as otherwise indicated by specific language, reference or context, any provision of 527 CMR 1.00 or any standard or code referenced in 527 CMR 1.00 relative to construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of buildings or structures or any appurtenances connected or attached to such buildings, shall not be considered a requirement of this *Code*, but rather a reference to the applicable provisions of the building code. Such reference is for the convenience of the reader and shall be subject to the jurisdiction of the appropriate building official .

1.1.3 Requirements of Specialized Codes. Unless otherwise indicated by language, specific reference or context, any provisions of 527 CMR 1.00 or any standard or code referenced in 527 CMR 1 relative to the installation, alteration, replacement or repair of any equipment or system subject to the jurisdiction of a

specialized code, including, but not limited to: plumbing, electrical, sheet metal, or elevator, shall not be considered a requirement of this *Code*, but rather a reference to the applicable specialized code. Such reference is for the convenience of the reader and shall be subject to the jurisdiction of the appropriate specialized code official.

1.1.4 Continued Maintenance of Any Equipment, System, Construction Requirement, Specification or Method Relating to Fire Protection. Notwithstanding the provisions of 1.1.2 or 1.1.3, any equipment, system, construction requirement, specification or method relating to fire protection of persons or property within a building, structure, ship or vessel shall be properly maintained and shall continue to perform in accordance with the applicable requirements of the building code or applicable specialized code as of the date of such approved installation or construction.

1.2 Reserved

1.3.2* Referenced Standards.

1.3.2.1 Except as provided in 1.1.2 relative to construction requirements for buildings or structures or 1.1.3, relative to requirements of specialized codes, all codes and standards referenced in 527 CMR 1.00 and listed in Chapter 2, which provide details regarding processes, methods, specifications, equipment testing and maintenance, design standards, performance, installation, or other pertinent criteria, shall be considered as part of this *Code*.

1.3.2.2 Reserved.

1.3.2.3 Nothing herein shall diminish the authority of the AHJ to determine compliance with this *Code* for those activities or installations, as may be otherwise granted under the authority of the provisions of M.G.L. c. 22D, 48, 148, 148A or other applicable provisions of Massachusetts Law

1.3.2.4 Reserved.

1.3.3 Conflicts.

1.3.3.1 When a requirement differs between this *Code* and a referenced document, the requirement of this *Code* shall apply.

1.3.3.2 When a conflict between a general requirement and a specific requirement occurs, the specific requirement shall apply.

1.3.3.3 When the requirements of this *Code* conflict with any other applicable regulation, or ordinance, the provisions which establish the higher standard for the promotion and protection of safety and welfare shall prevail.

1.3.4 Reserved.

1.3.5 Vehicles and Marine Vessels. Vehicles and marine vessels, or other similar conveyances, when in fixed locations and occupied as buildings, as described by 11.6 of NFPA 101, *Life Safety Code,* shall be treated as buildings and comply with this *Code*.

1.3.6 Buildings and Structures.

1.3.6.1 Buildings, structures, additions, and alterations permitted for construction after the adoption of this C*ode* shall comply with the provisions stated herein for new buildings.

1.3.6.2* Except as provided in Section 10.3.2, buildings in existence or permitted for construction prior to the adoption of this *Code* shall comply with the provisions stated herein or referenced for existing buildings.

1.3.6.3 Repairs renovations, alterations, reconstruction, change of occupancy, and additions to buildings shall conform to this *Code,* and the 780 CMR: *The Massachusetts State Building Code* as authorized by M.G.L..

1.3.6.4 Newly introduced equipment, materials, processes and operations regulated by this *Code* shall comply with the requirements for this *Code*.

1.3.7 Severability. If any provision of this *Code* or the application thereof to any person or circumstance is held invalid, the remainder of the *Code* and the application of such provision to other persons or circumstances shall not be affected thereby.

1.4 Equivalencies, Alternatives, and Modifications. The provisions of this *Code* shall not prevent the use of equivalencies, alternatives or modifications unless specifically prohibited herein.

1.4.1 Equivalencies. Nothing in this *Code* is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety to those prescribed by this *Code*, provided technical documentation is submitted to the AHJ in writing to demonstrate equivalency and the system, method, or device is approved for the intended purpose.

1.4.2 Alternatives. The specific requirements of this *Code* shall be permitted to be altered by the AHJ upon application in writing to allow alternative methods that will secure equivalent fire safety, but in no case shall the alternative afford less fire safety, in the judgment of the AHJ, which would be provided by compliance with the provisions contained in this *Code*.

1.4.3 Modifications. The AHJ is authorized to modify any of the provisions of this *Code* upon application in writing by the owner, a lessee or a duly authorized representative where there are practical difficulties in the way of carrying out the provisions of this *Code*, provided that the intent of the this *Code* be complied with and public safety is secured.

1.4.4 Buildings with equivalency, alternatives, or modifications approved by the AHJ shall be considered as conforming with this *Code*.

1.4.5 Each application for an alternative system, method or device regulated by this *Code* shall be filed with the AHJ in writing and shall be accompanied by such evidence, letters, statements, results of tests, or other supporting information as required to justify the request. The AHJ shall keep a record of actions on such

applications together with the information that supported the action, and a signed copy of the AHJ's decision shall be provided to the applicant.

1.4.6 Approval. Where allowed by this *Code,* the AHJ shall approve such alternative, systems, materials, or methods of design when it is substantiated that the standards of this *Code* are at least equaled. If, in the opinion of the AHJ, the standards of this *Code* shall not be equaled by the alternative requested, approval for permanent work shall be refused. Consideration shall be given to test or prototype installations.

1.4.7 Tests.

1.4.7.1 Whenever evidence of compliance with the requirements of this *Code* is insufficient or evidence that any material or method does not conform to the requirements of this *Code* or to substantiate claims for alternative, equivalent or modifications to systems, materials, or methods, the AHJ shall be permitted to require tests for proof of compliance to be made at the expense of the owner or his/her agent.

1.4.7.2 Test methods shall be as specified by this *Code* for the material in question. If appropriate test methods are not specified in this *Code,* the AHJ is authorized to accept an applicable test procedure from another recognized source.

1.4.7.3 Copies of the results of all such tests shall be retained in accordance with Section 1.11.

1.5 Units.

1.5.1 International System of Units. Metric units of measurement in this *Code* are in accordance with the modernized metric system, known as the International System of Units (SI).

1.5.2 Primary and Equivalent Values. If a value for a measurement as given in this *Code* is followed by an equivalent value in other units, the first stated value shall be regarded as the requirement. A given equivalent value could be approximate.

1.6 Enforcement.

This *Code* shall be administered and enforced by the AHJ.

1.7 Authority.

1.7.1 Administration. The provisions of this *Code* shall apply without restriction, unless specifically exempted.

1.7.2* Reserved.

1.7.3 Interpretations.

1.7.3.1 Upon a written request of any interested person the Board of Fire Prevention Regulations may render written advisory rulings and interpretations of this *Code*, pursuant to the provisions of M.G.L. c. 30A, § 8.

1.7.3.2 Reserved.

1.7.4 Enforcement Assistance. Police and other enforcement agencies shall have authority to render necessary assistance in the enforcement of this *Code* when requested to do so by the AHJ.

1.7.5 Delegation of Authority. The AHJ may delegate to other qualified individuals such powers as necessary for the administration and enforcement of this *Code* as provided in M.G.L. c. 148.

1.7.6 Inspections.

1.7.6.1 To the full extent allowed by the provisions of M.G.L. c. 148, the AHJ shall be authorized to inspect, at all reasonable times, any building or premises for dangerous or hazardous conditions or materials in order to determine compliance with this *Code.*

1.7.6.1.1 Coordinated Inspections. In circumstances involving compliance with two or more Massachusetts codes, including, but not limited to, 780 CMR: The Massachusetts State Building Code, 248 CMR 10: Uniform State Plumbing Code, 527 CMR 12: Massachusetts Electrical Code (Amendments), 524 CMR: Elevator Code and 271 CMR: Sheet Metal Code, the AHJ, while enforcing this *Code* shall, to the extent as reasonably practicable, coordinate inspections so that owners and occupants of a building or structure shall not be subjected to visits by numerous inspectors nor multiple or conflicting orders.

1.7.6.1.2 Notification to Other Officials. Whenever the AHJ observes an apparent or actual violation of some provision of law, ordinance, code or bylaw not within the AHJ’s authority, the AHJ shall report the findings to the appropriate code official having jurisdiction to enforce said law, ordinance, code or bylaw.

1.7.6.2 The AHJ shall have authority to order, in writing, any person(s) to remove or remedy any dangerous or hazardous condition or material as provided in M.G.L. c. 148 and this *Code*.

1.7.6.3 The AHJ engaged in fire prevention and inspection work shall be authorized at all reasonable times to enter and examine any building, structure, marine vessel, vehicle, or premises for the purpose of making fire safety inspections, to the full extent allowed by the provisions of M.G.L. c. 148 and this *Code*.

1.7.6.4 Before entering, the AHJ shall obtain the consent of the occupant thereof or obtain a proper warrant authorizing entry for the purpose of inspection, except where an emergency exists, or as otherwise permitted by law.

1.7.6.4.1 The applicant for any permit, certificate or license issued pursuant to the provisions of this *Code* or M.G.L. c. 148, or any person who seeks to renew or continue to hold such permit, certificate or license, shall be deemed to have consented to the inspection, at any reasonable hour, of any documents, premises, structure, marine*vessel, building or vehicle reasonably associated with said permit, license or certificate, or application or renewal thereof, in order to confirm compliance with the requirements of this *Code*, M.G.L. c. 148 or other related law or regulation related to such permit, license or certificate.

1.7.6.5 As used in 1.7.6.4, emergency shall mean conditions or circumstances that the AHJ knows, or has reason to believe, exist and that can constitute imminent danger.

1.7.6.6. Reserved.

1.7.7 Where conditions exist and are deemed to be an imminent danger by the AHJ, the AHJ shall have the authority to abate or require abatement of such conditions that are in violation of this *Code* or M.G.L. c. 148.

1.7.8 Interference with Enforcement. No person shall interfere or cause conditions that would interfere with an AHJ carrying out any duties or functions prescribed by this *Code.*

1.7.9 Impersonation. Persons shall not use a badge, uniform, or other credentials to impersonate the AHJ.

1.7.10 Reserved.

1.7.11 Plans and Specifications.

1.7.11.1 The AHJ shall have the authority to require plans and specifications to ensure compliance with this *Code* and M.G.L. c. 148. Construction documents and shop drawings submitted shall be acted upon before work commences and within 30 days of the date of receipt of a completed application and construction documents unless extended by the AHJ.

1.7.12 Inspection of Construction and Installation.

1.7.12.1 The AHJ shall be notified by the person performing the work when the installation is ready for a required inspection.

1.7.12.2 Whenever any installation subject to inspection prior to use is covered or concealed without having first been inspected, the AHJ shall have the authority to require that such work be exposed for inspection.

1.7.12.3 When any construction or installation work is being performed in violation of the plans and specifications as approved by the AHJ, a written notice shall be issued to the responsible party to stop work on that portion of the work that is in violation.

1.7.12.4 The notice of violation shall identify the violation together with the Section of this *Code* in violation.

1.7.12.5 The AHJ may issue a stop work order at which time the work shall not continue until the violation has been corrected.

1.7.12.5.1 A stop work order, if issued, shall be incorporated with the notice of violation.

1.7.13 Certificate of Occupancy. When the building code requires a certificate of occupancy, the certificate of occupancy shall be issued in accordance with the building code.

1.7.14 Stop Work Order. The AHJ shall have the authority to order an operation, construction or use stopped when any of the following conditions exist:

(1) Work is being done contrary to provisions of this *Code*.

(2) Work is occurring without a permit required by Section 1.12.

(3) An imminent danger has been created.

1.7.15 Imminent Dangers and Evacuation.

1.7.15.1 Whenever the maintenance, operation, or use of any land, building, structure, material or other object, or any part thereof, including vehicles used in the transport of hazardous materials, constitutes an imminent danger or a fire or explosion hazard which is dangerous or unsafe, or a menace to the public safety (including, but not limited to, fires, explosions, hazardous material incidents, motor vehicle accidents, structural collapses, mass casualty incidents and emergency extrication incidents) and the action to be taken to eliminate such dangerous or unsafe conditions which create, or tend to create, the same is not specifically provided for in this *Code*, and unless otherwise prohibited by law, ordinance, by-law, or regulation, the AHJ is hereby authorized and empowered to take such action as may be necessary to abate such dangerous or unsafe conditions(directing employees of other city or town departments and agencies), including the evacuation of buildings and/or the transport of hazardous materials, the speed, routes, amounts, and hours of transport through the city, town or district shall also be regulated.

1.7.16 Reserved.

1.7.17 Public Fire Education.

1.7.17.1 The AHJ shall have the authority to develop and implement a public fire safety education program as deemed necessary for the general welfare with respect to the potential fire hazards within the jurisdiction.

1.7.17.2 The AHJ shall have the authority to ensure duly authorized public fire safety education programs or public fire safety messages are disseminated to the general public.

1.8 Reserved.

1.9 Reserved.

1.10 Fire Prevention Regulations Appeals Board.

1.10.1 Establishment and Membership of the Fire Prevention Regulations Appeals Board.

(1) Pursuant to the Provisions of M.G.L. c. 22D, § 5, there shall be a Fire Prevention Regulations Appeals Board.

(2) The appeals board shall consist of the sixteen members of the Board of Fire Prevention Regulations, established under M.G.L c. 22D, §. 4.

(3) The Chairman of the Board of Fire Prevention Regulations shall serve as the chairman of the appeals board.

1.10.1.1 Authority of the Fire Prevention Regulations Appeals Board. The Fire Prevention Regulations Appeals Board is authorized to conduct appeals pursuant to the provisions of M.G.L. c. 22D, § 5.

(1) Whoever is aggrieved by any act, rule, order, directive, decision or requirement of the AHJ charged with the enforcement of this *Code*, relative to the fire protection requirements for buildings or structures, may submit an application for an appeal to the appeals board within 45 days following the service of notice of such act, rule, order, decision, requirement or directive.

1.10.1.2 Matters not within the Jurisdiction of the Appeals Board. The Appeals Board does not have jurisdiction to hear appeals relating to the following matters:

(1) Matters arising out of construction or installation requirements of 780 CMR: The Massachusetts State Building Code, (Building Code Appeals Board, M.G.L. c. 143, § 100);

(2) Matters arising out of the enforcement of the statutory enhanced automatic sprinkler provisions of M.G.L. c. 148, §§ Sections 26A ½, 26G, 26G½, or 26H (Automatic Sprinkler Appeals Board, M.G.L. c. 6, § 201);

(3) Matters arising out of an appeal of a determination of the municipal wiring inspector and/or involving the application of 527 CMR 12: Massachusetts Electrical Code (Amendments), (Board of Electrician's Appeal, M.G.L.) c. 143, § 3P);

(4) Matters arising out the issuance of a "Non-Criminal Fire Code Violation Notice" issued under the civil enforcement provisions of M.G.L. c. 148A;

(5) Matters arising out of the enforcement of a violation of any statute, including the provisions of M.G.L. c. 148 or arising out of any Order issued by the Head of the Fire Department or the State Fire Marshal relating to the abatement of a condition that constitutes a fire or explosion hazard or which is dangerous or unsafe or a menace to public safety (M.G.L. c. 148, § 5);

(6) Administrative matters initiated by the State Fire Marshal relating to the suspension, revocation or refusal to issue any certificate of competency or user's certificate issued by the State Fire Marshal ;

(7) Matters arising out of the AHJ's determination to suspend, revoke, issue or renew any permit based upon the exercise of discretionary function rather than a technical fire protection requirement of the Massachusetts Fire Safety Code; and

(8) Matters arising out of the enforcement of a city ordinance or town by-law or regulation promulgated or adopted by the municipality.

1.10.1.3 Means of Appeal. Application for an appeal shall be made, within 45 days following the service of notice of such act, rule, order, decision, requirement or directive which is the subject of the appeal on forms prescribed or approved by the appeals board.

1.10.1.3.1 Such application shall be accompanied by the required fee and include copies of all records, references, reports and other information related to the appeal.

1.10.1.3.2 An appeal shall stay all proceedings in the furtherance of the action or failure to act which is the subject of the appeal, unless the AHJ presents evidence that a stay would cause imminent peril of life or property.

1.10.1.4 Appeals Board Hearings. The Chairman of the appeals board shall designate three members of the appeals board to hold public hearings, hear testimony and take evidence.

1.10.1.4.1 The appeals board shall not be bound by the strict rules of evidence prevailing in courts of law or equity.

1.10.1.4.2 The chairman shall fix the time and place for hearings and a hearing shall take place not later than 60 days following the filing of an appeal, unless such time is extended by agreement with the appellant.

1.10.1.4.3 The chairman shall give at least 10 days' notice of the time and place of the hearing to all interested parties. Any party may appear in person, by agent or by attorney at the hearing.

1.10.1.5 Appeals Board Decisions. The three members of the appeals board conducting the hearing shall decide the appeal and issue a written decision. Every decision shall require the concurrence of at least two of the three members and the written decision shall state findings of fact, conclusions and reasons for the decision and indicate the vote of each member participating in the decision.

1.10.1.5.1 The appeals board shall issue a decision or order reversing, affirming or modifying, in whole or in part, such interpretation, order or decision, or a postponement of the application thereof, within 45 days following the hearing, unless such time is extended by agreement with the appellant.

1.10.1.5.2 The appeals board may grant a variance from any provision of the Massachusetts Fire Safety Code and related rules and regulations in any particular case and determine the suitability of alternate materials or methods of compliance and provide reasonable interpretations of the Massachusetts Fire Safety Code consistent with the purpose thereof.

1.10.1.6 Record of Appeals Board Decisions. A record of all appeals board decisions and of votes thereunder, properly indexed, shall be maintained in the office of the Department of Fire Services and shall be open to public inspection at all times during regular business hours.

1.11 Records and Reports.

1.11.1 A record of examinations, approvals, equivalencies, modifications and alternatives shall be maintained by the AHJ and shall be available for public inspection in accordance with provisions of the applicable Massachusetts Public Records Laws.

1.11.2 In accordance with the provisions of the applicable Massachusetts Public Records Laws the AHJ shall keep records of fire prevention inspections or investigations, including the date of inspections and a summary of violations found to exist, the date of the services of notices, and a record of the final disposition of all violations.

1.11.3 Emergency Response Records.

1.11.3.1 Reserved.

1.11.3.2 The fire department shall report all incident data collected in accordance with the provisions of Massachusetts General Law including M.G.L. c 6A, §18 ¾ (8) and M.G.L. 148, § 2 and 3.

1.11.4 All records shall be retained in accordance with the manner and duration required by the Massachusetts Public Records Law.

1.12 Permits and Approvals.

1.12.1 An application for permit shall be made in writing on a form acceptable by the State Fire Marshal and submitted to the applicable enforcement AHJ. Such application shall be legible and completed in its entirety.

1.12.1.2 The AHJ shall be authorized to issue permits and approvals as required by this *Code*.

1.12.1.3 Persons named in the application for a permit shall comply with this *Code*.

1.12.2 Applications for permits issued by the AHJ shall be accompanied by such data as required by the AHJ and such fees as required by Massachusetts General Laws. .
1.12.2.1 The AHJ shall review all applications submitted and issue permits as required.
1.12.2.2 If an application for a permit is rejected by the AHJ, a written notification shall be sent to the applicant as to the reasons for such rejection**.**
1.12.2.3 Permits for activities requiring evidence of financial responsibility by the jurisdiction shall not be issued unless proof of any required financial responsibility is furnished.
1.12.3 Conditions of Approval.
1.12.3.1 Any conditions of the approval by the AHJ of a permit shall remain with said permit, unless modified by the AHJ.
1.12.3.2 The AHJ shall be permitted to require conditions of approval to be memorialized via recording on the permit or, if relating to land or buildings, at the appropriate registry of deeds.
1.12.4 Approvals by Other Authorities.
1.12.4.1 The AHJ shall have the authority to require evidence to show that other regulatory agencies having jurisdiction over the design, construction, alteration, repair, equipment, maintenance, process, activity and relocation of structures have issued appropriate approvals.
1.12.4.2 The AHJ shall not be held responsible for enforcement of the regulations of such other regulatory agencies unless specifically mandated to enforce those agencies' regulations.
1.12.5 Misrepresentation.
1.12.5.1 Any attempt to misrepresent or otherwise deliberately or knowingly design, install, service, maintain, operate, sell, represent for sale, falsify records, reports, or applications; or other related activity in violation of the requirements prescribed by this *Code* shall be a violation of this *Code*.
1.12.5.2 Such violations shall be cause for immediate suspension or revocation of any related approvals or permits issued.
1.12.5.3 Such violations shall be subject to any other criminal or civil penalties provided by the laws or other applicable regulations of the Commonwealth of Massachusetts.
1.12.6 Permits.
1.12.6.1 A permit shall be conditioned upon the continued compliance with the requirements of this *Code* and shall constitute written authority issued by the AHJ to maintain, store, use, or handle materials; to conduct processes that could produce conditions hazardous to life or property; or to install equipment used in connection with such activities, or as authorized by this *Code*.
1.12.6.1.1 Unless specifically stated otherwise, permits required in Section 1.12.8 shall be issued by the Head of the Fire Department and issued as a precondition before conducting any work or activity regulated under the provisions of this *Code*.
1.12.6.2 Any permit issued under this *Code* is in addition to, and shall not take the place of any other approval, certificate, license, or permit required by any other regulations or laws.
1.12.6.3 Where additional permits or approvals are required by other agencies, approval shall be obtained from those other agencies.
1.12.6.4 The AHJ shall have the authority to require or conduct an inspection prior to the issuance of a permit.
1.12.6.5 A permit issued under this *Code* shall remain valid for the period of time designated on the permit unless suspended, revoked or otherwise extended pursuant to 1.12.6.8.
1.12.6.6 The permit shall be issued to one person or business only and shall be limited to locations or purposes described in the permit.
1.12.6.7 Any change that affects any of the conditions of the permit shall require a new or amended permit.
1.12.6.8 The AHJ shall have the authority to grant an extension of the permit time period upon presentation by the permittee of a satisfactory reason for failure to start or complete the work or activity authorized by the permit.
1.12.6.9 A copy of the permit shall be posted or otherwise readily accessible at each place of operation and shall be subject to inspection as specified by the AHJ.
1.12.6.10 Any activity authorized by any permit issued under this *Code* shall be conducted by the permittee or the permittee's agents or employees, in compliance with all requirements of this *Code* applicable thereto and in accordance with the approved plans and specifications.
1.12.6.11 No permit issued under this *Code* shall be interpreted to justify a violation of any provision of this *Code* or any other applicable law or regulation.
1.12.6.12 Any addition or alteration of approved plans or specifications shall be approved in advance by the AHJ, as evidenced by the issuance of a new or amended permit.
1.12.6.13 Permits shall bear the name and signature of the AHJ or that of the AHJ’s designated representative. In addition, the permit shall indicate the following:

- **(1)** Operation or activities for which the permit is issued;
- **(2)** Address or location where the operation or activity is to be conducted;
- **(3)** Name of the owner, with the address and phone number and the name of the installer, with the address and phone number, if applicable;
- **(4)** Permit number;
- **(5)** Period of validity of the permit;
- **(6)** Inspection requirements and other permit conditions;
- **(7)** Name of the agency authorizing the permit (AHJ);
- **(8)** Date of Issuance;

(9) Quantities of materials to be kept, used or stored, as applicable;
(10) Certificate, and/or license issued under M.G.L. c. 148 § 13, as applicable;
(11) Permit conditions as determined by the AHJ.

1.12.6.14 Any application for, or acceptance of, any permit requested or issued pursuant to this *Code* shall constitute agreement and consent by the person making the application or accepting the permit, to allow the AHJ to enter the premises at any reasonable time to conduct such inspections or review such records as required by this *Code*.

1.12.7 Revocation or Suspension of Permits and Approvals.

1.12.7.1 The AHJ shall be permitted to revoke or suspend a permit or approval issued by said AHJ if any violation of this *Code* or of M.G.L. c. 148 is found upon inspection or if any false statements or misrepresentations have been submitted in the permit application or plans on which the permit or approval was based.

1.12.7.2 Revocation or suspension shall be constituted when the permittee is duly notified by the AHJ.

1.12.7.3 Any person who continues to engage in any permitted or approved business, operation, occupation, or uses any premises, after the permit or approval has been suspended or revoked pursuant to the provisions of this *Code* and before such suspended permit or approval has been reinstated or a new permit or approval is issued, shall be in violation of this *Code*.

1.12.8 General Requirements. A permit and an application for permit shall be required as prescribed in Section 1.12.8. No work or activities described in this Section shall commence without first complying with Section 1.12 and the applicable table in Section 1.12.8.

1.12.8.1 Fire in the Open Air.

1.12.8.1.1 Permit holder shall be present at such burning to control the fire until it is entirely extinguished.

1.12.8.1.2 Open air burning permits shall be issued for a period not exceeding two days from the date of the permit.

1.12.8.1.3 Any person may burn a Christmas tree during the period from December 26 to January 7.

1.12.8.1.4 Burning Debris. A permit for burning debris resulting from the demolition of a building shall cover a period not exceeding two days from the date of the permit.

1.12.8.1.5 Removal of Paint using a Torch.

1.12.8.1.5.1 Permit. A permit shall be required for the use of a torch or other flame or heat producing device for the removal of paint or the application or removal of roofing material from any building or structure. An approved fire extinguisher or an adequate water supply shall be readily available at all times.

1.12.8.1.6 Permits not Required.

1.12.8.1.6.1 The personal use and handling of an alcohol based hand rub preparation is exempt from the permitting requirements.

1.12.8.1.6.2 The storage of alcohol based hand rub preparations, in excess of ten gallons, shall comply with the requirements of this *Code.*

Table 1.12.8.1 Permits Required

Chapters 10	General Requirements	
Work/ Activity	Issuing Authority	Code Section/ MGL
Open Air Burning	Forest Warden	M.G.L. c. 48, § 13
Burning demolition/ building debris.	Head of Fire Department	Section 10.11.4 for open fires
Ceremonial Bonfires.		M.G.L. c. 111, § 142 H and I Section 10.11.4.1 and 10.11.4.2
Use of candles, open flames, and portable cooking in assembly areas, dining areas of restaurants, and drinking establishments.		Section 10.11.1
Burning of Christmas trees.		M.G.L. c. 111, § 142G Section 1.12.8 and 10.11.4 and 10.14
Use of a torch or other flame or heat producing device.		Section 10.11.9.1
Use of canine guards.		Section 10.22.1
Fumigation and insecticidal fogging.		Section 10.21.1
Storage of combustible goods > 2500 cu. ft. (70.8 m^3) gross volume.		Section 10.19.2 Section 10.16.2

1.12.8.2 Oil Burners and Fuel-Oil.

1.12.8.2.1 Permit Requirements.

1.12.8.2.1.1 In accordance with M.G.L. c.148, §38J, on a form approved by the State Fire Marshal, a document indicating that each fuel line is enclosed with a continuous non-metallic sleeve or is otherwise equipped with an oil safety valve, shall be submitted with the application for permit, when applicable.

1.12.8.2.1.2 Inspection.

1.12.8.2.1.2.1 If after 30 days, an inspection is not conducted, the delivery of fuel oil shall not be prohibited for lack of a permit to store.

1.12.8.2.2 Permit Not Required.

1.12.8.2.2.1 A permit shall not be required for routine maintenance, such as the replacement of nozzles, ignition electrodes, or filters; however, a combustion performance test shall be conducted.

1.12.8.2.3 Emergency Conditions.

1.12.8.2.3.1 If an oil burner installation is made under emergency conditions, said application shall be made within 24 hours thereafter, excluding Saturdays, Sundays and holidays.

1.12.8.2.4 Fuel Oil Deliveries.

1.12.8.2.4.1 Fuel oil shall not be delivered to any storage tank unless the deliverer has knowledge that a permit has been obtained.

1.12.8.2.4.1.1 Such knowledge may be considered to consist of any of the following:

(1) Verification by the Head of the Fire Department that such a permit is in effect.

(2) Written verification from the owner or customer that the permit is either in his possession or is posted on the premises.

(3) Observation that such a permit is in the possession of the owner or customer, or is posted on the premises.

Table 1.12.8.2 Permits Required

Chapter 11	Oil Burners and Fuel-Oil.	
Work/ Activity	Issuing Authority	Code Section/ MGL
Installation or alteration of any fuel oil burning equipment.	Head of Fire Department	Section 11.5.1.8 MGL c.148 §10A; 23 and 24
Storage of fuel oil in excess of ten gallons used in connection with an oil burner.		
Installation or removal of a fuel storage tank (unless provided otherwise in Chapter 66).		Section 11.5.1.10.5 .6 and (6) and 11.5.10.5.1

1.12.8.3 Smoke, Fire and Carbon Monoxide Protection System.

1.12.8.3.1. No person or entity may install any fire protection system in any new or existing building or structure without first complying with the provisions in this section and table 1.12.8.3.

1.12.8.3.2 A fire protection system shall include any wiring, equipment and systems used to detect, suppress or control smoke, fire and carbon-monoxide or any combination thereof.

1.12.8.3.3 No permit shall be required for the replacement, in kind, of an individual device (battery, smoke detector/alarm, carbon monoxide detector/alarm).

Table 1.12.8.3 Permits Required

Chapter 13	Fire Protection System and Related Equipment.	
Work/ Activity	Issuing Authority	Code Section/ MGL
Sale or transfer CO/ smoke devices installations [≤ 5 dwelling units].	Head of Fire Department	Chapter 13
Installations of carbon monoxide protection technical options.		Section 13.7.1.4.9 Section 13.13.2.13
Fire protection system and related equipment.		Chapters 42 and 69
Replacement or disconnection of any fire protection system.		Chapters 13 and 50

1.12.8.4 Safeguarding Construction, Alteration, and Demolition Operations.

1.12.8.4.1 Permits must be obtained at least two days prior to the placement of a tar kettle on a roof.

Table 1.12.8.4 Permits Required

Chapter 16	Safeguarding Construction, Alteration, and Demolition Operations	
Work/ Activity	Issuing Authority	Code Section
Torch-applied roofing operations	Head of Fire Department	Section 10.11.9.1 and 16.6.1
Placement of a tar kettle on a roof		Section 10.11.9.1 and 16.7.1.2
Use of salamanders		Section 16.1.1.1

1.12.8.5 Combustible Waste and Refuse.
1.12.8.5.1 A permit shall not be required for containers which are delivered to a location and removed in the course of a single business day.
1.12.8.5.2 Containers shall be marked with the name and telephone number of the company who can be reached in an emergency.

Table 1.12.8.5 Permits Required

Chapter 19	Combustible Waste and Refuse and Rubbish Containers	
Work/ Activity	Issuing Authority	Code Section
Rubbish containers > 6 cubic yards	Head of Fire Department	Section 19.1.1

1.12.8.6 Occupancy Fire Safety.
1.12.8.6.1 Unvented Heaters.
1.12.8.6.1.1 A copy of the manufacturer's installation/operating literature for unvented propane or natural gas-fired space heaters shall be submitted with each permit application.
1.12.8.6.1.2 Before operation of such heater, the Head of the Fire Department and the local or state plumbing/gas inspector shall inspect the installation.

Table 1.12.8.6 Permits Required

Chapter 20	Occupancy Fire Safety	
Work/ Activity	Issuing Authority	Code Section
Exhibits or displays in mall areas	Head of Fire Department	Section 20.1.5.5.1
Storage, handling, use, or display of cellulose nitrate film		Section 20.15.7.2
Unvented propane or natural gas-fired space heaters		Sections 20.2.4.5, 20.3.2.1, 20.8.2.6.1, 20.9.2.2.1, 20.10.2.1, 20.11.2.1

1.12.8.7 Chapter 21 Reserved.
1.12.8.8 Chapter 22 Reserved.
1.12.8.9 Cleanrooms.

Table 1.12.8.9 Permits Required

Chapter 23	Cleanrooms	
Work/ Activity	Issuing Authority	Code Section/ Chapter
Use, storage or handling of hazardous materials	Head of Fire Department	Section 23.3 Chapter 60 through 75

1.12.8.10 Dry Cleaning.

Table 1.12.8.10 Permits Required

Chapter 24	Dry Cleaning	
Work/ Activity	Issuing Authority	Code Section/ Chapter
Use, storage or handling of hazardous materials	Head of Fire Department	Section 24.2 Chapters 60 through 75

1.12.8.11- 1.12.8.15 Chapters 25- 29 Reserved.

1.12.8.16 Motor Fuel Dispensing Facilities and Repair Garages.

Table 1.12.8.16 Permits Required

Chapter 30	Motor Fuel Dispensing Facilities and Repair Garages	
Work/ Activity	Issuing Authority	Code Section/ Chapter
Use, storage or handling of hazardous materials	Head of Fire Department	Section 30.1.1.3 Chapters 60 through 75

1.12.8.17 Forest Products.

Table 1.12.8.17 Permits Required

Chapter 31	Forest Products	
Work/ Activity	Issuing Authority	Code Section
Storage of mulch > 300 cubic yards.	Head of Fire Department	Section 31.2

1.12.8.18 Motion Picture and Television Production Studio Soundstages and Approved Production Facilities.

1.12.8.18.1 Notification.

1.12.8.18.1.1 A permit shall not be required provided notification is given to the Head of the Fire Department for production locations where 15 to 30 on-site personnel are present, and permits are not specifically required by 1 through 9, as provided in *Table 1.12.8.18*.

Table 1.12.8.18 Permits Required

Chapter 32	Motion Picture and Television Production Studio Soundstages and Approved Production Facilities	
Work/ Activity	Issuing Authority	Code Section
For activities listed (1) Use of pyrotechnic special effects [Section 65.3]. (2) Use of open flames. [Section 65.4]. (3) Welding and cutting [Chapter 41]. (4) Storage and use of flammable or combustible liquids of gases [Chapters 63 and 66]. (5) Use of aircraft. (6) Presence of motor vehicles within a building. (7) Productions with live audiences. (8) Storage and use of liquefied petroleum gases. [Section 69.1] (9) Use of fog and haze.	Head of Fire Department	Section 32.4.2 Section 32.5.2

1.12.8.19 Chapter 33 Reserved.

1.12.8.20 Chapter 34 Reserved.

1.12.8.21 Chapter 35 Reserved.

1.12.8.22 Dust Explosion and Fire Prevention.

Table 1.12.8.22 Permits Required

Chapter 40	Dust Explosion and Fire Prevention	
Work/ Activity	Issuing Authority	Code Section
An operation that uses or produces combustible dust.	Head of Fire Department	Section 40.2

1.12.8.23 Welding, Cutting and Other Hot Work.

1.12.8.23.1 Application for a Permit.

1.12.8.23.1.1 A permit application shall specify the time and exact location of the work to be performed, the nature of the work to be done, and any special precautions to be taken during that work.
1.12.8.23.1.2 On the permit application the applicant shall provide written authorization, signed by the property owner or his agent.

1.12.8.23.2 Permit Requirements.
1.12.8.23.2.1 A single permit shall be permitted to be issued for both operation and storage.
1.12.8.23.2.2 For daily activities, an annual permit shall be permitted if in compliance with Section 41.1.5.2.
1.12.8.23.3 Permits Not Required.
1.12.8.23.3.1 A permit shall not be required when conducted in approved and designated areas in accordance with Section 41.3.2.2.1.

Table 1.12.8.23 Permits Required

Chapter 41	Welding, Cutting, and Other Hot Work	
Work/ Activity	Issuing Authority	Code Section
Cutting and welding operations	Head of Fire Department	Sections 41.1.5; 41.3.2.2; 41.3.4
Storage of fuel gases		Chapters 60 through 75

1.12.8.24 Refueling, Gaseous Fuel Containers and Systems.
1.12.8.24.1 Application for Permit.
1.12.8.24.1.1 An application for a permit shall be submitted by the person, firm or corporation responsible for the installation or connection.
1.12.8.24.2 Permit Not Required.
1.12.8.24.2.1A permit shall not be required to make a connection in the fueling of gaseous fuel vehicles, replacement of a portable container, or the filling of a stationary container.

Table 1.12.8.24 Permits Required

Chapter 42	Refueling [Gaseous Fuel Containers and Systems]	
Work/ Activity	Issuing Authority	Code Section
Installation or connection of	Head of Fire Department	Section 42.2.2.1

1.12.8.25 Refueling, Cargo Tanks, Portable Tanks or Transfer Tanks.
1.12.8.25.1 General.
1.12.8.25.1.1 All tanks shall be considered full for the purpose of this *Code*.
1.12.8.25.2 Cargo, Portable and Transfer Tanks.
1.12.8.25.2.1 A permit shall be required when tanks are left unattended.

1.12.8.25.3 Vehicles and Contents.
1.12.8.25.3.1 Tanks shall only be left in an area remote from buildings of habitation in such a manner required by the AHJ.
1.12.8.25.3.2 The Head of the Fire Department may assume control of the vehicle and its contents if the owner is unable or unwilling to remove the vehicle or its contents within a reasonable time.
1.12.8.25.3.4 Inspections Required.
1.12.8.25.3.4.1 Transport vehicles used in the transportation of combustible liquids shall be subject to inspection by the AHJ.
1.12.8.25.3.5 Exemption from Inspection.
1.12.8.25.3.5.1 If exempt from an inspection, a certificate of exemption shall be issued by the AHJ and carried in the transport vehicle at all times.
1.12.8.25.3.5.2 A certificate of exemption shall remain in effect provided the tank vehicle is maintained in accordance with U.S. DOT, Title 49 CFR.
1.12.8.25.3.6 Permits Not Required.
1.12.8.25.3.6.1 A permit shall not be required for gasoline or other flammable petroleum product provided it is transported in an open vehicle or in a compartment of a closed vehicle separated from the passengers, where the total quantity does not exceed 21 gallons, provided such flammable liquid is contained in approved containers and with no individual container exceeding seven gallons capacity.
1.12.8.25.3.6.2 A permit shall not be required for combustible liquids transported in any open vehicle or in the compartment of a closed vehicle separated from the passengers where the total quantity does not to

exceed 55 gallons, provided such combustible liquid is contained in approved containers, substantial metal drums or other similar containers.

1.12.8.25.3.7 Transportation of Combustible Liquids.

1.12.8.25.3.7.1 To transport combustible liquids, a decal shall be affixed to the upper left quadrant of the transport vehicle.

1.12.8.25.3.8 Alternate Fuels.

1.12.8.25.3.8.1 Notice of Completion and Inspection of Work.

1.12.8.25.3.8.1.1 Upon receipt of such notification of completion of the work, the AHJ shall make an inspection of the installation within a reasonable time. If the work is found to be in accordance with this *Code* and, if applicable, 502 CMR 5.00: *Permit Requirements and Annual Inspection of Above Ground Storage Tanks or Containers of More than Ten Thousand Gallons' Capacity*, the AHJ shall issue to the owner or occupant a permit for the keeping, storage, manufacture or sale in connection therewith, except where such storage is otherwise authorized by license.

Table 1.12.8.25 Permits Required

Chapter 42	Refueling [Cargo Tanks, Portable Tanks or Transfer Tanks]	
Work/ Activity	Issuing Authority	Code Section
Cargo tanks, portable tanks, and transfer tanks < 15,000 gallons in the aggregate.	Head of Fire Department	Section 42.2.2.1
Transportation of any combustible liquid.	State Fire Marshal	
To receive flammable and combustible liquids.	Head of Fire Department	
For dispensing motor fuel from a tank vehicle.		
Alternate fuels		Section 42.8

1.12.8.26 Refueling, Marine Fueling.

1.12.8.26.1 Permit Holder. A permit holder shall comply with following:

(1) The permit holder of every marine fueling facility shall designate one or more persons to be an authorized marine fueling operator.

(2) The permit holder shall keep a written record for each authorized marine fueling operator.

(a) Such written record shall be maintained for a period of three years.

(b) Such written records shall include the following information:

(3) The name, home address, telephone number, and age;

(4) The date and location of the training;

(5) A summary of the training program topics;

(6) A dated signature of the employee administering the training;

(7) A dated signature from the employee receiving the training.

1.12.8.26.2 Marine Fueling Operator. The operator shall be 18 years of age or older and responsible for the oversight of the actual fueling activity conducted by the marine fueling facility and shall comply with the following:

(1) The operator shall be the permit holder or shall be an agent or employee under the direct control or supervision of said permit holder.

(2) Each current or newly designated authorized marine fueling operator shall be adequately and properly trained prior to conducting any fueling activity.

(3) Training shall be conducted at least on an annual basis and at a minimum, shall include the following areas:

(a) Familiarity of Chapter 42;

(b) The properties and hazards of flammable and combustible liquids;

(c) Handling precautions for flammable and combustible liquids;

(d) The manufacturers operating instructions for operating all fueling equipment (pumps, nozzles, controls, emergency shutoff, *etc*.) and related equipment;

(e) Familiarity with the operation and location of all fueling equipment and of all emergency equipment and procedures, including:

1.Emergency notifications (for mobile operators site by site specific);

2.Evacuation procedures;

3.Emergency shutoff equipment location and operation;

4.Fire extinguisher locations and operations;

5.Location and proper operation of any extinguishing systems;

6.Standby for the arrival of emergency responders.

Table 1.12.8.26 Permits Required

Chapter 42	Refueling [Marine Fueling]	
Activity	Issuing Authority	Code Section
The dispensing, transferring of fuel at marine fueling facilities	Head of Fire Department And State Fire Marshal	Section 42.9.1.4
To construct or alter a new or existing marine fueling facility		
To maintain a fueling facility		

1.12.8.27 Spraying, Dipping, and Coating Using Flammable or Combustible Materials.
1.12.8.27.1 Use Prohibited.
1.12.8.27.1.1 The use of 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 or sanding sealers, shall be prohibited. [MGL. c. 94, § 329]

Table 1.12.8.27 Permits Required

Chapter 43	Spraying, Dipping, and Coating Using Flammable or Combustible Materials	
Work/ Activity	Issuing Authority	Code Section
Storage, use or handling of hazardous materials	Head of Fire Department	Chapters 60 through 75

1.12.8.28 Chapter 44 Reserved.
1.12.8.29 Combustible Fibers.
1.12.8.29.1 No permit shall be required for agricultural storage of combustible fibers.

Table 1.12.8.29 Permits Required

Chapter 45	Combustible Fibers	
Work/ Activity	Issuing Authority	Code Section
For storage or handling of combustible fibers > 100 ft^3 (2.8 m^3)	Head of Fire Department	Section 45.1.3

1.12.8.30 Commercial Cooking Equipment.

Table 1.12.8.30 Permits Required

Chapter 50	Commercial Cooking Equipment	
Work/ Activity	Issuing Authority	Code Section
Installation of fire-extinguishing equipment	Head of Fire Department	Section 50.4.2

1.12.8.31 Industrial Ovens and Furnaces.

Table 1.12.8.31 Permits Required

Chapter 51	Industrial Ovens and Furnaces	
Work/ Activity	Issuing Authority	Code Section
Installation and operation of an oven or furnace.	Head of Fire Department	Section 51. 1.2.1

1.12.8.32 Chapter 52 Reserved.
1.12.8.33 Chapter 53 Reserved.

1.12.8.34 Hazardous Material.

1.12.8.34.1 Permit Requirements.

(1) A permit holder shall apply for the renewal on an annual basis.

(2) A new permit shall be required prior to engaging in any new or modified hazardous material process activity, which results in a change to a different process category authorized by the current permit.

1.12.8.34.1.2 Process or Processing of any Hazardous Material at any Facility.

(1) A permit shall be required for the process or processing of any hazardous material at any facility identified in this *Code* as Category 2 through Category 5.

(2) The AHJ may require technical assistance in accordance with 1.15 to evaluate the adequacy of a Category 3 or Category 4 facility process safety conditions, programs, procedures, and practices undertaken at the facility, but only after a notice of denial has been properly served upon the person making application.

Table 1.12.8.34 Permits Required

Chapter 60	Hazardous Material	
Work/ Activity	Issuing Authority	Code Section
Process or Processing of any Hazardous Material in Category 2, 3, 4, and/or 5.	Head of Fire Department	Section 60.8
Crop ripening or color processing.	Head of Fire Department	Section 60.8.4 Where that process involves the storage, handling, and use of a flammable compressed gas (see Section 63.1.2). Where that process involves the storage, handling, and use of a Combustible or flammable liquid (see Section 66.1.5).

1.12.8.35 Aerosol Products.

1.12.8.35.1 Permit Requirement.

1.12.8.35.1.1 A permit shall be required based on the aggregate quantity.

1.12.8.35.2 Permit Not Required.

1.12.8.35.2.1 A permit shall not be required for level 1 aerosol products.

Table 1.12.8.35 Permits Required

Chapter 61	Aerosol Products	
Work/ Activity	Issuing Authority	Code Section
Storage > 500 lbs.	Head of Fire Department	Section 61. 1.2

1.12.8.36 Chapter 62 Reserved.

1.12.8.37 Compressed Gases and Cryogenic Fluids.

Table 1.12.8.37 Permits Required

Chapter 63	Compressed Gases and Cryogenic Fluids	
Work/ Activity	Issuing Authority	Code Section
Storage of compressed gases		
Inside of a building	Head of Fire Department	Section 63.1.2 (Also see Table 1.12.8.50)
Outside of a building		

1.12.8.38 Chapter 64 Reserved.

1.12.8.39 Explosives, Fireworks and Model Rocketry.

1.12.8.39.1 Explosives.

1.12.8.39.1.1 Permit Requirements. Compliance with the following shall be required:

(1) For the purpose of permitting, the capacity of a storage magazine, in pounds, shall be the maximum constructed storage capacity of the magazine as reported to the Alcohol Tobacco and Firearms (ATF).

(2) An application for permit to conduct a blasting operation shall include the submittal of an Explosives User's Certificate and a Certificate of Competency.

(3) A permit to detonate explosives shall not be issued unless the person holds a valid certificate and a Dig-Safe number has been obtained in accordance with M.G.L. c. 82, § 40.

(4) Such permit shall remain in effect for a minimum of 30 days, unless extended, suspended or revoked.

(5) For deliveries of explosive materials to any magazine, building, or structure shall be in accordance with M.G.L. c. 148, § 12.

1.12.8.39.1.1.1 Sale or Transfer. Compliance with the following shall be required for permits**:**

(1) The transferee shall immediately apply for a new permit for the magazine, building or structure.

(2) Any owner shall notify the State Fire Marshal immediately of the sale or transfer of a magazine, building or structure. The owner shall remove the permit number from the magazine, building or structure upon sale or transfer.

1.12.8.39.1.1.2 Application to Manufacture.

1.12.8.39.1.1.2.1 Applicants for a permit to manufacture explosives shall submit proof of license to manufacture explosives materials issued in accordance with 27 CFR Part 55, and a license and registration, as applicable, to keep, store, manufacture or sell explosive material, issued in accordance with M.G.L c. 148, § 13 with an application for a permit.

1.12.8.39.1.1.3 Plans.

1.12.8.39.1.1.3.1 A plan drawn to scale shall be required to be submitted with the application for permit showing the arrangement of the various buildings and magazines of the manufactory and the egress therefrom, their relative location to other buildings and property lines, and shall clearly indicate the following:

(1) The location of the manufactory;

(2) The name of the owner and/or occupant;

(3) The kind and maximum quantities of the explosives, raw materials, ~~and~~ finished products, and the manner in which they are to be kept or stored;

(4) The nature of the work to be carried on in each building.

1.12.8.39.1.1.4 Permits Not Required. Permits shall not be required for the following:

(1) For smokeless propellants displayed in commercial establishments intended for sale and not exceeding 25 lbs. and stored in original manufacturer's containers of one lb. maximum capacity.

(2) Small arms ammunition, primers, smokeless propellants and black powder stored in original containers and stored in a locked cabinet, closet or box when not in use as provided in Section 1.12.8.50.

(3) Small arms ammunition, as used here, shall mean any shotgun, rifle, or pistol cartridge and any cartridge or propellant actuated devices, excluding military ammunition containing bursting charges or incendiary, tracer, spotting, or pyrotechnic projectiles.

1.12.8.39.1.1.5 Notification.

1.12.8.39.1.1.5.1 Each day any blasting operations are to be performed, notification shall be given at least two hours prior to such operations, if required by the Head of the Fire Department. Failure to notify will be cause for revocation of the permit.

1.12.8.39.1.1.5.2 The Head of the Fire Department shall make a written report to the State Fire Marshal stating the details of any incident resulting in any injury to persons or property during an activity.

1.12.8.39.2 Fireworks.

1.12.8.39.2.1 Permit Requirements. The following permit provisions shall be complied with:

(1) An application for permit has been submitted and shall include the submittal of a fireworks user's certificate and a certificate of competency.

(2) The quantity and description of materials to be used shall be listed on the permit application.

1.12.8.39.2.2 Displays.

(1) Applications shall be submitted in writing at least 20 days in advance of a display unless waived by the Head of the Fire Department.

(2) Upon receipt of an application for fireworks the Head of the Fire Department shall make or cause to be made an investigation of the pertinent facts set forth in the application and a physical inspection of the display grounds for the purpose of determining compliance with the provisions of this *Code*.

(3) These requirements may be waived if the same display has been witnessed at similar separate locations.

(4) Upon completion of such investigation and inspection for fireworks, but no later than five days after receipt of said application, the Head of the Fire Department shall transmit one copy of said application to the State Fire Marshal and one copy to the applicant with his endorsement thereon in compliance with provisions of law, or his reason for withholding such endorsement.

(5) Denial of a permit application for the use of special effects [fireworks] for just cause shall be determined by the Head of the Fire Department within a maximum of 24 hours after witnessing the preliminary display, and the applicant shall be so notified in writing within the next 24 hours with the reasons for such denial detailed.

(6) The Head of the Fire Department shall notify the State Fire Marshal of substitutions of certificate holders within two working days following the display.

(7) The applicant for the special effects [fireworks] permit shall demonstrate the fireworks display in the presence of the Head of the Fire Department or his designees at least four hours before the performance at the proposed location of the performance. Notice of the demonstration shall be given to the Head of the Fire Department at least four days in advance documenting the date and time of such demonstration.

1.12.8.39.2.3 Permit Not Required.
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 49CFR.
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 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/ MGL
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 > 50 lbs. (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.	Head of Fire Department	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.
1.12.8.40.1.2 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, means 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: *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/ MGL
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
To keep, store, manufacture, handle flammables or combustible liquids	Head of Fire Department	Section 66.1.5
Installation, maintenance, and storage of 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.

1.12.8.43.1.2.1 Upon receipt of notification of completion of the work, the AHJ shall make an inspection of the installation within a reasonable time. If same is found to be in accordance with Chapter 69 and if applicable 502 CMR 5.00: *Permit Requirements and Annual Inspection of Above Ground Storage Tanks or Containers of More than Ten Thousand Gallons' Capacity*, the AHJ shall issue to the owner or occupant a permit for the keeping, storage, manufacture or sale of LP-gas in connection therewith, except where such storage is otherwise authorized by license.

1.12.8.43.1.2.2 Violation.

1.12.8.43.1.2.2.1 If such installation is found not to be in accordance with Chapter 69, the permit shall be withheld and shall not be issued until the proper corrections have been made as directed, by written notice if requested, within a reasonably specified time and prior to any LP-gas being stored in the container(s).

1.12.8.43.1.2.2.2 Permits for the storage are considered null and void if such containers are considered abandoned. Where containers are abandoned they shall be removed, as provided in *Table 1.12.8.43*. If permitted by the AHJ, such container may be reused in accordance with Section 1.12.8.43.1.1.

1.12.8.43.2 Permits Not Required.

1.12.8.43.2.1 No permit shall be required to make a connection in the replacement of a portable container, or the filling of a stationary container.

Table 1.12.8.43 Permits Required

Chapter 69	Liquid Petroleum Gases and Liquefied Natural Gas	
Work/ Activity	Issuing Authority	Code Section
Installation or modification	Head of Fire Department	Section 69.1.2 Section 69.1.3.1

Keeping, removal, storage or use of LP-gas >42 lbs aggregate capacity.		

1.12.8.44 Chapter 70 Reserved.
1.12.8.45 Chapter 71 Reserved.
1.12.8.46 Chapter 72 Reserved.
1.12.8.47 Chapter 73 Reserved.
1.12.8.48 Chapter 74 Reserved.
1.12.8.48.1 Ammonium Nitrate. If applicable, **s**hall comply with the requirements of Chapter 65.
1.12.8.49 Chapter 75 Reserved.

1.12.8.50.1 Quantities, Permits and/or License Requirements.
1.12.8.50.2 The activities and aggregate quantities listed in *Table 1.12.8.50* shall be used in determining permit and/or license thresholds.
1.12.8.50.2.1 All tanks, containers, vessels and transport vehicles are to be considered full for the purpose of permitting under this *Code* and under M.G.L. c. 148, § 13.
1.12.8.50.2.2 This section shall not apply to Class II and III liquids that are not heated to or above their flash points and:

(1) That have no fire point when tested by ASTM D 92, *Standard Test Method for Flash and Fire Points by Cleveland Open Cup*, up to the boiling point of the liquid or up to a temperature at which the sample being tested shows an obvious physical change, or

(2) That are in a water-miscible solution or in dispersion with a water and inert (noncombustible) solids content of more than 80% by weight, which do not sustain combustion when tested using the "Method of Testing for Sustained Combustibility", per 49 CFR 173, Appendix H, or the UN *Recommendations on the Transport of Dangerous Goods.*

1.12.8.50.3 If a license is required based on the limits set forth in *Table 1.12.8.50,* it shall be issued in accordance with M.G.L. c.148 § 13.
1.12.8.50.4 A permit shall be obtained in accordance with *Table 1.12.8.1 through Table 1.12.8.50* as applicable.
1.12.8.50.5 When storing more than one class of liquid or other materials named in *Table 1.12.8.50*, a license shall only be required for the individual class or materials, which exceed the amounts listed.
1.12.8.50.6 Explosive material classified as Division 1.5 and 1.6 shall not be regulated as an explosive in determining capacities subject to license requirements of M.G.L c. 148, § 13.

Table 1.12.8.50 Permit and/or License Thresholds.

Materials	Quantities	Permit	License
Class I liquids *Note. Gasoline may be used, kept, or stored in any building not used for habitation nor frequented by the public, ≤ 7 gallons and provided the gasoline is stored in one or more approved containers without a permit.* *Note: See alcohol based hand rub Section 1.12.8.1.7.* * In containers of 60 gallons capacity or less or in portable tanks over 60 gallons capacity not intended for fixed use, including intermediate bulk containers (IBCs) designed for mechanical handling.	< 793 gallons*	yes	no
	≥ 793 gallons	yes	yes
Class I liquids ** In storage tanks having a liquid capacity that exceeds 60 gallons capacity, intended for fixed installation, and not used for processing.	<10,000 gallons**	yes	no
	≥ 10,000 gallons	yes	yes
Class II liquids	<10,000 gallons	yes	no
	≥ 10,000 gallons	yes	yes
Class IIIA liquids	<10,000 gallons	yes	no
	≥ 10,000 gallons	yes	yes

Class IIIB liquids	<10,000 gallons	yes	no
	≥10,000 gallons	yes	yes
Solids	< 100 lbs.	yes	no
	≥100 lbs.	yes	yes
Flammable gases (within a building)	<3,000 cubic feet	yes	no
	≥ 3,000 cubic feet	yes	yes
Flammable gases (outside a building)	<10,000 cubic feet	yes	no
	≥ 10,000 cubic feet	yes	yes
Fuel oil that may be kept for use in a building or other structure.	<10,000 gallons of light or of heavy	yes	no
	≥ 10.000 gallons of light or of heavy	yes	yes
Small arms ammunition of rim fire ammunition [private use]	< 10,000 rounds	no	no
	≥10.000- 30,000 rounds	yes	no
	> 30,000 rounds	no	yes
Small arms ammunition of center fire ammunition. [private use]	< 10,000 rounds	no	no
	≥ 10,000- 50,000 rounds	yes	no
	> 50,000 rounds	no	yes
Small arms ammunition of shotgun ammunition. [private use]	< 5,000 rounds	no	no
	≥ 5,000 rounds- 50,000 rounds	yes	no
	> 50,000 rounds	no	yes
Small arms ammunition primers [private and commercial]	< 1,000 caps or other small arms primers	no	no
Small arms ammunition primers [private use]	< 10,000 caps or other small arms primers	yes	no
	≥ 10,000 caps or other small arms primers	no	yes
Small arms ammunition primers [commercial use]	< 100,000 caps or other small arms primers	yes	no
	≥ 100,000 caps or other small arms primers caps or other small arms primers	no	yes
Smokeless propellants [private and commercial] *Note: Persons under 18 years of age may not keep or store smokeless propellants.* *Note: Not more than two pounds of such propellant shall be stored in a multiple family dwelling or a building of public access.*	< 16 lbs.	no	no
Smokeless propellants [private]	> 16 lbs.	yes	no
	> 48 lbs.	no	yes
Smokeless propellants [commercial]	< 100 lbs.	yes	no
	≥ 100 lbs.	no	yes
Black powder [private and commercial] *Note Persons under 18 years of age may not keep or store any amount of black powder.*	< 2 lbs.	no	no
Black powder [private]	≤ 5lbs.	yes	no
	>5 lbs.	no	yes
Black powder [commercial] See Section 1.12.8.39.3.2.1 for permit exemption individual.	< 50 lbs.	yes	no
	≥50 lbs.	no	yes
Special industrial explosive devices	< 50 lbs. net weight of explosives	no	no
	≥ 50 lbs. net weight of explosives	no	yes
Explosive material. Note: Fireworks can be stored up to 30 days without a land license.	classified Division 1.1 - 1.6	yes	yes

LP-Gas.	< 42lbs. [10 gallons]	no	no
	≥ 42 lbs. [10-gallons]	yes	no
	>2,000 gallons of LP-Gas in the aggregate	yes	yes
Flammable or class II combustible liquids unattended within cargo tanks, portable tanks or transfer tanks on a parcel of land. This shall not apply to parcels of land permitted by the Head of the Fire Department prior to September 1, 2008.	≤15,000 gallons in the aggregate	yes	no
	>15,000 gallons in the aggregate	no	yes

1.12.8.51 Certificates of Completion. A certificate of completion shall be filed as provided in *Table 1.12.8.51*.

1.12.8.51.1 A person making the installation of an oil burner shall within 72 hours (excluding Saturday, Sunday and holidays) after test-firing the burner, file such certificate of completion.

1.12.8.51.2 Inspection. Upon receipt of a certificate of completion, the Head of the Fire Department shall make an inspection of the installation within a reasonable time and, if same is found to be in accordance with this *Code*, the AHJ shall issue to the owner or occupant an applicable permit.

Table 1.12.8.51 Certificates Required for Permit

Chapters 11, 42, 69	Certificates of Completion
Type	Submitted to
Oil Burner Technician [Chapter 11]	
Upon completion the person, firm or corporation having made the installation or connection:	Shall certify in writing on a form approved by the State Fire Marshal to the Head of the Fire Department that the work has been completed, and in conformity with the requirements of this *Code*.
Alternate Fuels [Chapter 42]	
Upon completion of an installation or connection the person, firm or corporation having made the installation or connection:	Shall certify in writing to the Head of the Fire Department that the work has been completed, and in conformity with the requirements of this *Code*.
LP [Chapter 69]	
Upon completion of an installation or connection the person, firm or corporation having made the installation or connection:	Shall certify in writing to the Head of the Fire Department that the work has been completed, and in conformity with the requirements of this *Code*.

1.13 Certificates.

1.13.1 General. No person shall conduct a business or engage in the work or activity prescribed in Section 1.13.3 unless a certificate prescribed in 1.13.6 has been issued and provide further that such certificate is not expired, suspended, revoked or fee not paid.

1.13.1.1 The following provisions shall apply to each certificate issued by the State Fire Marshal:

(1) Certificates shall be issued in such form as prescribed by the State Fire Marshal;
(2) Certificates shall not be transferable;
(3) Certificates shall be issued for the period of time as indicated on the certificate;
(4) Address change shall be reported in writing to the State Fire Marshal's Office within 14 days of such change to maintain validity of the affected certificate;
(5) Certificate shall not be issued to anyone under 18 years of age;
(6) A valid certificate of competency shall be carried on that person at all times;
(7) Any individual or company to whom a certificate has been granted shall, upon request, produce and show proper identification and the certificate to the AHJ or anyone for whom that individual or facility seeks to render services;
(8) Certificates shall not be altered;
(9) Any evidence of alteration of any certificate shall render certificate invalid;
(10) Altered certificates shall be surrendered to the State Fire Marshal or his designee;
(11) Any insurance company providing coverage shall be licensed in the Commonwealth of Massachusetts by the Commissioner of Insurance.

1.13.2 Certificates Required by the State Fire Marshal. The following certificates shall be required and issued by the State Fire Marshal:

(1) A certificate of competency (CC) is a certificate issued to a person, in the individual's name, authorizing the person named in the certificate to perform an activity described in this *Code.*

(2) A certificate of registration (CR) is a certificate authorizing a person to establish and operate a business.

(3) A certificate of registration (CR) shall be issued to the person who owns and operates the business as a sole proprietor, company, firm, corporation or other legal entity with a place of business.

(a) A certificate of registration shall be issued to each company, firm, corporation, or other legal entity with a place of business.

(b) Additional certificates shall be required to be issued contingent upon multiple place of business locations.

(4) A user certificate (UC) is a certificate authorizing a person to establish and operate a business in a name other than the individual's name.

(a) A user certificate shall be issued to each company, firm, corporation, or other legal entity with a place of business.

(b) Additional certificates shall be required to be issued contingent upon multiple place of business locations.

(5) The holder of a (CR) or (UC) certificate shall not entitle the holder individually to carry out or execute the actual activity.

(6) The holder of a certificate of registration shall only advertise in the name as it is stated on such certificate. Any sign, listing, or advertisement of the business shall display the certificate number.

1.13.3 Authorization. The State Fire Marshal shall have the authority to require certificates, permits or, if applicable, training relating to the following activities:

(1) Sale, manufacture, possession or use of explosive materials, blasting operations, fireworks displays, storage of fireworks, use of pyrotechnics or special effects before a proximate audience;

(2) Inspection, servicing or recharging of portable fire extinguishers;

(3) Installation, servicing or recharging of fixed fire extinguishing systems;

(4) Commercial cooking operations;

(5) Self service gas stations;

(6) Marine fueling facilities and mobile marine fueling vehicles;

(7) Crowd managers.

1.13.4 Applications.

(1) Applications shall be made in writing, complete and legible, with the applicable fee, to the State Fire Marshal.

(2) The State Fire Marshal or his designee shall review every application for a certificate.

(3) Application fees are non-refundable.

1.13.4.1 Incomplete Applications. When the State Fire Marshal or his designee determines that an application to receive a certificate is incomplete, inadequate, or does not otherwise comply with the provisions of this *Code*, policy, or any other applicable law, the State Fire Marshal shall refuse to issue said certificate. If the refusal is based on the applicant's inability to pass an examination given to determine competency, the applicant may re-apply in accordance with the policy of the State Fire Marshal.

1.13.4.2 Applicants.

(1) Applicants shall meet the eligibility criteria for the applicable certificate as established by the State Fire Marshal and provide documentation of knowledge and experience particular to the profession, as required on the application for certificate.

(2) Applicants applying for a certificate issued under 1.13, shall furnish such documents or other evidence as prescribed by the State Fire Marshal, as a condition to the issuance of such certificate.

1.13.4.3 Renewal of Certificate.

1.13.4.3.1 Unless stated otherwise, a certificate may be renewed upon written request of the holder, provided it is not expired, suspended or revoked by the State Fire Marshal.

1.13.4.3.2 Renewal applications shall be accompanied by the appropriate fee and shall be submitted at least one month in advance of the expiration date, or as otherwise required by the State Fire Marshal.

1.13.4.3.3 Applicants submitting a renewal application shall meet the eligibility criteria for the applicable certificate as established by the State Fire Marshal.

1.13.5 Revocation or Suspension of Certificates issued by the State Fire Marshal.

1.13.5.1 The State Fire Marshal may revoke or suspend any certificate for failing to comply with any provision of this *Code*, M.G.L. c. 148, or if any misrepresentations are submitted in the application on which the issuance was based.

1.13.5.1.1 Such revocation or suspension shall, where required under the provisions of M.G.L. c. 30A, be effective after the holder has been given adequate notice and an opportunity for a hearing.

1.13.5.1.2 Notice Issued by the State Fire Marshal.

1.13.5.1.2.1 Any notice issued by the State Fire Marshal under this *Code,* shall be deemed delivered and received by said holder, if the notification is sent by certified mail, return receipt requested, to the last known address of said holder, according to the records of the State Fire Marshal at the time of such mailing.

1.13.5.1.2.2 Instances Involving an Immediate Threat to Public Safety.

1.13.5.1.2.2.1 The State Fire Marshal may suspend or revoke, prior to a hearing, any certificate, or any rights and privileges granted thereby, issued under this *Code* or M.G.L. c. 148, whenever the holder thereof has

committed a violation of any law, ordinance or by-law relating to the subject matter of M.G.L. c. 148, or any provision of this *Code*, the nature of which would give the State Fire Marshal reason to believe that the continued operation by such holder is and will be so seriously improper as to constitute an immediate threat to the public safety.

1.13.5.1.2.2.2 Upon such suspension or revocation, the State Fire Marshal shall forthwith send written notice thereof to the holder. Such notice shall specify the time and place of the violation.

1.13.5.1.2.2.3 The State Fire Marshal or his designee may order the certificate to be delivered to him forthwith.

1.13.5.1.2.2.4 The certificate shall not be reissued unless, upon examination or investigation, or after a hearing, the State Fire Marshal, or his designee determines that the certificate, license, or approval shall be re-issued.

1.13.5.1.2.2.5 Said holder shall be entitled to a hearing within thirty days of the suspension or revocation.

1.13.6 Certificates by Activity. The activity described in Sections 1.13.6 through 1.13.11 shall require a certificate to be issued before commencing such work or activities prescribed in Section 1.13.3.

1.13.6.1 Servicing Portable Fire Extinguishers and/or Fixed Fire Extinguishing Systems.

1.13.6.1.1 General. To service portable fire extinguishers and/or fixed fire extinguishing systems, two certificates shall be required. A certificate of competency shall be required for each person performing activities in this section and a certificate of registration shall be required for each firm, company, corporation or other legal entity. Additional certificates of registration shall be issued contingent upon multiple business locations.

1.13.6.2 Application for Certificate of Competency.

1.13.6.2.1 An applicant requesting a certificate shall comply with the following;

(1) Submit a completed application in accordance with Section 1.13.4 for the servicing of portable fire extinguishers and/or fixed fire extinguishing systems, identifying applicable type of certificate (restriction(s)) to the State Fire Marshal's Office.

(2) An application for a Type 47 and a Type 48 certificate of competency shall be accompanied by a written attestation, enumerating the applicant's technical qualifications, competency, and experience to charge, recharge, repair, test, inspect and service engineered or pre-engineered systems.

1.13.6.2.2 Examination.

(1) The State Fire Marshal shall establish a comprehensive written examination covering state laws, regulations and industry safety standards pertaining to this *Code*.

(2) The applicant shall successfully pass an examination as a prerequisite to the issuance of a certificate. The Examination shall consist of multiple-choice, fill-in, true-false, or short answer questions, and may include the following topics:

(a) Diagrams, plans or sketches;

(b) Portable fire extinguishers: charging, recharging, servicing, testing, and inspecting;

(c) Engineered fixed fire extinguishing systems: charging, recharging, altering, repairing, testing, inspection, installation, and servicing;

(d) Pre-engineered fixed fire extinguishing systems;

(e) Self service fire extinguishing systems.

1.13.6.2.3 Renewal of Certificate of Competency.

1.13.6.2.3.1 An applicant requesting renewal shall submit a renewal application as provided in Section 1.13.4.3 to the State Fire Marshal's Office.

1.13.6.2.4 Non-compliance Service Tags.

1.13.6.2.4.1 Installed non-compliance service tags shall be bright orange, have the words "Non-Compliance" in block letters not less than one half inch in height and be black in color.

1.13.6.2.4.2 Tags shall contain the firm name, certificate of registration number, date of inspection, the reason for noncompliance and the initials and certificate of competency number of the person who conducted the inspection.

1.13.6.3 Application for a Certificate of Registration.

1.13.6.3.1 An applicant requesting a certificate for a firm, company, corporation or other legal entity shall submit a completed application in accordance with Section 1.13.4 for the servicing of portable fire extinguishers and/or fixed fire extinguishing systems, identifying applicable type of restriction(s).

1.13.6.3.2 Issuance of Certificate of Registration.

1.13.6.3.2.1 No certificate of registration shall be issued until:

(1) The State Fire Marshal or his designee has conducted an inspection to determine that the applicant possesses the required equipment for the type of certificate sought. A reasonable opportunity shall be given to correct any deficiencies discovered by the inspection before the issuance of the registration.

(2) A copy of the DOT registration has been submitted, if applicable.

(3) When requested by the State Fire Marshal, the applicant shall demonstrate their knowledge and skill.

1.13.6.3.3 Service Tags.

1.13.6.3.3.1 Approved service tags installed by the holder of a certificate shall include all of the following information on the front of the tag:

(1) The words "Do Not Remove Per Order of the State Fire Marshal" on the top front of tag;

(2) Servicing firm's name and address;

(3) Firm's Certificate of Registration MA-CR number and type;

(4) Type of service performed;

(5) Date service performed;

(6) Certificate of competency number of the qualified individual who performed or supervised the service(s) performed and their initials;
(7) Space and lines for recording owner and location of equipment;
(8) Space and lines for recording type and size of extinguisher.

1.13.6.3.3.2 Prior to printing a service tag, each firm holding a valid certificate of registration shall forward one sample of the service tag to the State Fire Marshal for approval.

1.13.6.3.3.3 One service tag shall be attached to each portable fire extinguisher, engineered or pre-engineered fixed fire extinguishing system or to a vessel which has been hydrostatically tested.

1.13.6.3.3.4 A service tag shall be affixed and indicate the date, initials and certificate number of the person who conducted the most recent test.

1.13.6.3.3.5 Any engineered, pre-engineered and self-service fire suppression system inspected and found to be in non-compliance with its listing or manufacturers specifications, shall have a service tag attached indicating non-compliance.

1.13.6.3.4 Renewal of Certificate of Registration.

1.13.6.3.4.1 An applicant requesting renewal of a certificate shall comply with the following:
(1) Submit a renewal application as provided in Section 1.13.4.3 to the State Fire Marshal's Office;
(2) The holder of a certificate of registration shall report annually the name, address, and certificate of competency number (CC) of each certified person in his employ, in a manner acceptable to the State Fire Marshal.

1.13.6.3.5 A copy of the certificate of registration shall be provided by the State Fire Marshal for each separate location of such firm.

1.13.6.3.6 Every business issued a certificate of registration shall be properly equipped to perform the act or acts as permitted by the type of certificate(s) issued.

1.13.6.3.7 Each certificate of registration shall be identified by type and shall bear an identifying number delineating as MA-CR-(number), the "MA" indicating it is a Massachusetts certificate.

1.13.6.3.8 The Head of the Fire Department shall be notified in writing by the business conducting any service for which a certificate is required, within 48 hours of any deficiencies found and within 48 hours of the completion of the work to bring the system into compliance.

Table 1.13.6 Certificates Required

Chapter 13	Portable Fire Extinguishers and/or Engineered or Pre-engineered Fixed Fire Extinguishing Systems or Performing of Hydrostatic Testing		
Certificate of Registration and Competency			
Activity	Description	Types for business entities [Registration]	Types of [Competency]
For the installation, servicing, inspection, testing alteration, repair, and recharging. *Note: For hydrostatic testing of cylinders see Federal License requirements* and DOT provisions.	Self-Serve Motor Fuel Facilities.	Type 40	Type 41
	Servicing portable fire extinguishers.	Type 42	Type 46
	Servicing engineered fixed fire extinguishing systems.	Type 43	Type 47
	Servicing pre-engineered fixed fire extinguishing systems.	Type 44	Type 48

1.13.7 Commercial Cooking-cleaning, Inspection and Cleaning of Exhaust Systems.

1.13.7.1 General. To clean and inspect commercial cooking exhaust systems the following certificates shall be required. A certificate of competency, Type 1 shall be required to be issued to a person as a contractor. A *Restricted* Type 2 certificate of competency shall be issued to a person for the cleaning and/or inspection of commercial cooking equipment that is owned by the certificate holder or their employer.

1.13.7.2 Application for Certificate of Competency.

1.13.7.2.1 An applicant requesting a certificate shall comply with the following:
(1) Submit a completed application in accordance with Section 1.13.4 for the cleaning or inspection of commercial cooking operations to the State Fire Marshal's Office;
(2) Submit a completed affidavit verifying 500 hours of supervision in the cleaning or inspection of commercial cooking operations;
(3) The State Fire Marshal may develop forms for the purposes of confirming the 500 hours of experience;
(4) The applicant shall successfully pass an examination as a prerequisite to the issuing of a certificate.

1.13.7.3 Examination.

(1) The State Fire Marshal or his designee shall administer a written exam that measures the applicant's ability, knowledge and skill level.

(2) The State Fire Marshal may allow an applicant to submit test results from an examination given by a third party certification entity, taken within two years of the date of application.

(a) The State Fire Marshal or his designees shall determine if said test measures the applicant's ability, knowledge and skill level in a manner equivalent to or greater than, the test administered by the State Fire Marshal.

(b) The State Fire Marshal shall be permitted to establish other examination criteria based on other laws and regulations.

1.13.7.4 Renewal of Certificate of Competency.

1.13.7.4.1 An applicant requesting renewal shall submit a renewal application as provided in Section 1.13.4.3 to the State Fire Marshal's Office.

Table 1.13.7 Certificates Required

Chapter 50	Commercial Cooking-Cleaning, Inspection and Cleaning of Exhaust Systems	
Certificates of Competency Activity	Type	Description
To an individual who will be offering or conducting or engaging in the cleaning or inspection services.	Type 1	Issued to those individuals who conduct cleaning or inspection activities for the general public.
	Type 2 Restricted	Issued to those individuals who actually conduct cleaning activities for commercial cooking operations that they own or operate or their employer owns or operates.

1.13.8 Cannon and Mortar.

Table 1.13.8 Certificates Required

Chapter 65	Cannon and Mortar
Certificates of Competency Activity	Description
Individuals to conduct or engage in any operation or activity which governs the firing of muzzle-loading cannons.	For patriotic celebrations and re-enactments, including all such cannons ranging from pre- revolutionary war vintage to present day facsimiles, except any cannon exhibit in which explosives are not being used.

1.13.9 Fireworks Display, Special Effects or Proximate Audience Displays.

1.13.9.1 General. To display fireworks and special effects or proximate audience displays, two types of certificates may-be required. A certificate of competency shall be required for the display of fireworks. A certificate of competency shall be required for special effects or proximate audience displays. Certificates of competency shall be required to be issued to persons performing each such activity. A user certificate for fireworks shall be required for each firm, company, corporation, or other legal entity. Additional user certificates for fireworks shall be issued contingent upon multiple business locations.

1.13.9.1.2 Fireworks Display.

1.13.9.1.2.1 Application for Fireworks Display Certificate of Competency.

1.13.9.1.2.1.1 Applicants shall comply with the following:

(1) Submit a completed application in accordance with Section 1.13.4 for the display of fireworks to the State Fire Marshal's Office.

(2) Provide evidence of active employment for a period of three years on a crew for professional fireworks displays, to encompass a minimum of ten displays.

(3) Submit at least two letters of reference from other certificate holders within the state. At the option of the State Fire Marshal, an alternate requirement shall be permitted to be substituted.

(4) Provide evidence of having satisfactorily completed a recognized fireworks safety course, subject to review by the State Fire Marshal, during the past 12 months.

1.13.9.1.2.2 Examination.

1.13.9.1.2.2.1 The applicant shall be 21 years of age or older and pass a comprehensive written examination covering state laws, regulations and industry safety standards pertaining to the display of fireworks and this *Code*.

1.13.9.1.2.3 Renewal of Certificate of Competency.

1.13.9.1.2.3.1 The applicant requesting renewal shall comply with the following:

(1) Proof of actively participating in at least two displays during the prior two years;

(2) A notarized statement attesting that the person understands the contents of this *Code* pertaining to fireworks display and M.G.L. c. 148. The statement shall be made part of the application;

(3) Submit a renewal application as provided in Section 1.13.4.3 to the State Fire Marshal's Office.

1.13.9.1.2.4 Fireworks Users Certificates.

1.13.9.1.2.4.1 Application for Fireworks Users Certificates.

1.13.9.1.2.4.1.1 Applicants shall comply with the following:

(1) Submit a completed application in accordance with Section 1.13.4 for a user's certificate to the State Fire Marshal's Office;

(2) Provide evidence of a valid bond in accordance with M.G.L. c. 148, § 42;

(a) Supply evidence of valid liability insurance coverage in the form of a certificate issued by the insurance agency to the State Fire Marshal's Office listing the name and claims representative, providing general liability in the amount of $1,000,000 per occurrence and $1,000,000 aggregate coverage ;

(b) A 30 day cancellation notice to the State Fire Marshal shall be a condition of the policy;

(3) Provide a notarized statement indicating that fireworks materials shall be transported, stored, and handled or used in accordance with Chapter 65;

(4) Provide a statement attesting that the person or firm understands the contents of this *Code* and M.G.L. c. 148. The statement shall be made a part of the application.

1.13.9.1.2.5 Expiration of Fireworks User Certificate.

1.13.9.1.2.5.1 A fireworks user's certificate shall expire upon the expiration of the ATF permit, bond, or the liability insurance, whichever occurs first.

1.13.9.1.2.6 Renewal of User Certificate.

1.13.9.1.2.6.1 An applicant requesting renewal shall submit a renewal application as provided in Section 1.13.4.3 to the State Fire Marshal's Office.

1.13.9.1.3 Special Effects or Proximate Audience Displays.

1.13.9.1.3.1 Application for Special Effects or Proximate Audience Displays Certificate of Competency.

1.13.9.1.3.1.1 The Applicant shall comply with the following:

(1) Submit a completed application in accordance with Section 1.13.4 to the State Fire Marshal's Office;

(2) Submit evidence of knowledge and experience particular to the profession of conducting special effects displays;

(a) Such evidence shall include written documentation that the applicant has worked in at least ten special effects performances within two years from the date of application, under the direct supervision of a person who possesses a valid certificate of competency for such special effects issued by the commonwealth or such similar certificate issued by another state;

(3) Provide evidence of having satisfactorily completed a recognized fireworks safety course, approved by the State Fire Marshal, during the past 12 months;

(4) At least two letters of reference from other pyrotechnic certificate holders within the state. At the option of the State Fire Marshal, an alternate requirement can be substituted.

1.13.9.1.3.2 Examination.

1.13.9.1.3.2.1 The applicant shall be at least 21 years of age or older and pass a comprehensive written examination covering state laws, regulations and industry safety standards pertaining to the display of special effects and this *Code*.

1.13.9.1.3.3 Renewal of Certificate of Competency.

1.13.9.1.3.3.1 An applicant requesting renewal shall comply with all of the following:

(1) Pass a re-examination covering state laws, regulations and industry safety standards pertaining to the display of special effects;

(2) Submit proof of actively participating in at least two displays during the prior two years;

(3) Provide a statement attesting that the person understands the contents of this *Code* pertaining to special effects and M.G.L. c. 148. The statement shall be made part of the application;

(4) Submit a renewal application as provided in Section 1.13.4.3 to the State Fire Marshal's Office.

1.13.9.2 Supervision. Fireworks, special effects and pyrotechnic compositions and devices shall be ignited and be supervised continuously by the person holding a certificate of competency for the display.

Table 1.13.9 Certificates Required

Chapter 65	Fireworks, Special Effects and Proximate Audience Displays
Certificate of Competency	
Activity	Description
Individuals to conduct or engage in any activity, operation or act with the use of fireworks.	To conduct outdoor, marine or supervised displays of fireworks.
Individuals to conduct or engage in any activity, operation or act with the use of special effects or proximate audience effects.	To conduct outdoor / indoor, proximate audience special effects displays.
Fireworks User Certificate	
Activity	Description
Companies to conduct or engage in any operation (use or manufacture) or act for which governs the use of fireworks or special effects.	To possess and conduct fireworks or special effects.

1.13.10. Use and Handling of Explosives for Blasting.

1.13.10.1 General. To use and handle explosives for blasting purposes, two certificates shall be required. A certificate of competency for blasting shall be required for each person performing activities in this section and a user certificate shall be required for each firm, company, corporation or other legal entity. Additional user certificates shall be required to be issued contingent upon multiple places of business.

1.13.10.1.2 Application for Certificate of Competency.

1.13.10.1.2.1 Application and Examination.

1.13.10.1.2.1.1 The applicant shall be 21 years of age or older and comply with the following:

(1) Submit a completed application in accordance with Section 1.13.4 to the State Fire Marshal's Office;

(2) Pass a comprehensive written examination covering state laws, regulations and industry safety standards pertaining to this *Code;*

(3) Provide evidence of having satisfactorily completed a recognized safety course, subject to review by the State Fire Marshal, during the past 12 months;

(4) Have at least two letters of reference from other certificate holders within the state. At the option of the State Fire Marshal, an alternate requirement may be permitted.

1.13.10.1.2.2 Certificate of Competency.

1.13.10.1.2.2.1 Blasting.

1.13.10.1.2.2.2 No blasting operation shall be conducted at any time unless a blaster holding a certificate of competency is physically present.

1.13.10.1.2.2.3 Trainees, helpers, and other persons shall be permitted to work only under the supervision of a blaster holding a certificate of competency.

1.13.10.1.2.3 Renewal of Certificate a Competency.

1.13.10.1.2.3.1 The applicant requesting renewal shall submit a renewal application as provided in section 1.13.4.3 to the State Fire Marshal's Office.

1.13.10.1.2.4 Application for Users Certificate.

1.13.10.1.2.4.1 The applicant making an application shall comply with the following:

(1) Submit a completed application in accordance with Section 1.13.4 to the State Fire Marshal's Office;

(2) Provide evidence of valid liability insurance coverage in the form of a certificate issued by the insurance agency to the State Fire Marshal's Office listing the name and claims representative, providing general liability in the amount of $1,000,000 per occurrence and $1,000,000 aggregate coverage. A 30 day cancellation notice to the State Fire Marshal shall be a condition of the policy;

(3) Provide evidence of a valid blasting bond;

(4) Provide a statement indicating that explosive materials shall be kept in magazines which meet the requirements of Chapter 65 and in accordance with 27 CFR Part 55;

(a) Provide a notarized statement attesting that the person or firm understands the contents of this *Code* and M.G.L. c. 148.

1.13.10.1.2.5 Renewal of User Certificate.

1.13.10.1.2.5.1 An applicant requesting renewal shall submit a renewal application as provided in Section 1.13.4.3 to the State Fire Marshal's Office.

1.13.10.1.2.6 User Certificate.

1.13.10.1.2.6.1 General.

(1) A user certificate shall not be required for small arms ammunition as provided in *Table 1.12.8.50*.

(a) Small arms ammunition, as used here, means any shotgun, rifle, or pistol cartridge and any cartridge or propellant actuated devices, excluding military ammunition containing bursting charges or incendiary, tracer, spotting, or pyrotechnic projectiles;

(2) User's certificates shall expire upon the expiration of the ATF permit, bond, or the liability insurance, whichever occurs first.

1.13.10.2 Manufacture.

1.13.10.2.1 A manufacturer of explosives shall mean any person licensed in accordance with 27 CFR Part 55, and engaged in the business of manufacturing explosives for the purpose of sale or distribution.

1.13.10.2.2 A federal manufacturer license is required when a binary system is used and the components are mixed in the course of a trade or business to create an explosive material.

1.13.10.2.3 In the case of binary systems, the supplier of pre-weighted or pre-measured ingredients, not the person mixing the ingredients, is considered the manufacturer of any pyrotechnic materials created from binary components.

1.13.10.2.4 The person loading binary materials into devices supplied by the manufacturer of binary systems shall not be considered a manufacturer when such loading is performed according to the instructions of the manufacturer.

Table 1.13.10 Certificates Required

Chapter 65	Explosive Use and Handling
Certificate of Competency	
Activity	Description
Allows individuals to conduct or engage in any activity, operation or act dealing with the use of explosives;	To conduct blasting operations, including: research and development (R&D), and blasting for the cleaning of boilers.
Explosive User Certificate	
Activity	Description
Allows companies to conduct or engage in any operation (use, handling or manufacture) of explosives;	To possess and conduct explosive activity or operation.
	To manufacture explosive materials.

1.13.11 Renewal of Certificates. The following certificates shall be renewed as provided in *Table 1.13.11* and in applicable Sections of 1.13.

Table 1.13.11 Renewal of Certificates

Certificates	**Renewal Cycle**	**Expiration [See Note 1 and 2]**	**Exam Required for Renewal**
Self-Serve Motor Fuel Facilities. Type 40	2 yrs	2 yrs Cycle from date of issue	No
Servicing Portable Fire Extinguishers. Type 42	2 yrs	2 yrs Cycle from date of issue	No
Servicing Engineered Fixed Fire Extinguishing Systems. Type 43	2 yrs	2 yrs Cycle from date of issue	No
Servicing Pre-engineered Fixed Fire Extinguishing Systems. Type 44	2 yrs	2 yrs Cycle from date of issue	No
Cleaning/Inspection of Commercial Cooking Exhaust Systems Type 1 / Type 2 Restricted	3 yrs	3 yrs Cycle Renewal on DOB	No
Fireworks Display	2 yrs	2 yrs Cycle Renewal on DOB	No
Cannon/Mortar	5 yrs	5 yrs Cycle Renewal on DOB	No
Crowd Manager	3 yrs	3 yrs cycle from date of issue	Yes
Special Effects	2 yrs	2 yrs Cycle Renewal on DOB	Yes
Blasting R&D	2 yrs	2 yrs Cycle Renewal on DOB	No
Blasting (Site work)	2 yrs	2 yrs Cycle Renewal on DOB	No
Blasting (Boiler)	2 yrs	2 yrs Cycle Renewal on DOB	No
Servicing Engineered Fixed Fire Extinguishing Systems Type 47	2 yrs	2 yrs Cycle Renewal on DOB	No
Servicing Pre-engineered Fixed Fire Extinguishing Systems Type 48	2 yrs	2 yrs Cycle Renewal on DOB	No

Self-Serve Motor Fuel Facilities Type 41	2 yrs	2 yrs Cycle Renewal on DOB	No
Servicing Portable Fire Extinguishers only Type 46	2 yrs	2 yrs Cycle Renewal on DOB	No
Fireworks User Certificate	1 yr	1 yr or less dependent on ATF permit, bond and/or insurance	No
Explosives Users Certificate (Blaster)	1 yr	1 yr or less dependent on ATF permit, bond and/or insurance	No
Explosives Users Certificate (R&D)	1 yr	1 yr or less dependent on ATF permit, bond and/or insurance	No
Explosives Users Certificate (Boiler)	1 yr	1 yr or less dependent on ATF permit, bond and/or insurance	No
Explosives Users Certificate (Limited to Pest Management)	1 yr	1 yr Cycle from date of insurance	No
Permit to Transport Fireworks	1 yr	1 yr Cycle from date of issuance	No
Explosive Magazine Permit (mobile)	1 yr	Annually on 3/31	No
Explosive Magazine Permit (permanent)	1 yr	Annually on 10/31	No
Remote Firing Panel	5 yrs	5 yrs Cycle from date of issuance	No
Permits to transport combustible liquids	2yrs	Each even numbered year thereafter	No
Certificate to sell explosives	1 yr	1 yr Cycle from date of issuance	No
Certificate to sell black or smokeless powder	1 yr	1 yr Cycle from date of issuance	No

Note 1. DOB as used here means the date and year someone was born or such anniversary date.
Note 2. ATF as used here means Bureau of Alcohol, Tobacco and Firearms and Explosives.

1.14.1 Plan Review.
1.14.1.1 General.
1.14.1.1.2 Where permits and plan reviews are required by this *Code*, the AHJ shall complete plan reviews for new construction, modification, or rehabilitation, of any building, structure or facility.
1.14.1.1.3 Construction documents and shop drawings submitted shall be approved by the AHJ before work commences and within 30 days of the date of receipt of a completed application and construction documents, unless extended by the AHJ.
1.14.1.1.4 Review and approval by the AHJ shall not relieve the applicant of the responsibility of continued compliance with this *Code*.

1.14.1.1.5 When required by the AHJ, revised construction documents or shop drawings shall be prepared and submitted for review and approval to illustrate corrections or modifications necessitated by field conditions or other revisions to approved plans.

1.14.1.2 Applicants Responsibility.

1.14.1.2.1 The applicant shall be responsible to ensure that the following conditions are met:

(1) The construction documents include fire protection requirements;

(2) The shop drawings are correct and in compliance with the applicable codes and standards;

(3) The contractor maintains an approved set of construction documents on site.

1.14.1.3 AHJ Responsibility.

1.14.1.3.1 It shall be the responsibility of the AHJ to promulgate policies and procedures that cover the following:

(1) Criteria to meet the requirements of Section 1.12 and 1.13;

(2) Review all of documents and related information within the established time frames for the purpose of acceptance or providing reasons for non-acceptance.

1.14.1.4 Explosives Manufacturing.

1.14.1.4.1 Plans.

1.14.1.4.1.1 Explosives manufacturing requires a plan drawn to scale showing the arrangement of the various buildings and magazines of the manufactory and the egress therefrom, their relative location to other buildings and property lines and shall be submitted to the Head of the Fire Department and State Fire Marshal indicating the following:

(1) The location of the manufactory;

(2) The name of the owner and/or occupant;

(3) The kind and maximum quantities of the explosives, raw materials and finished products and the manner in which they are to be kept or stored;

(4) The nature of the work to be carried on in each building;

(5) A fire safety analysis conducted by a registered professional engineer.

1.14.1.5 Marine Fueling Facility.

1.14.1.5.1 General.

1.14.1.5.1.1 Prior to conducting any construction or alteration activity to a new or existing fixed marine fueling facility, a registered design professional shall prepare and submit three (3) complete stamped and scaled sets of plans and specifications to the Head of the Fire Department and the State Fire Marshal.

1.14.1.5.1.2 One set of plans shall be marked State Fire Marshal's office copy, a second set of plans shall be marked local fire department copy and the third set of plans marked owner's copy. Such marking for each set of plans shall be in bold and located on the lower right hand legend.

1.14.1.5.1.3 All designs, blueprints, plans and specifications shall comply with the provisions of this *Code* and any other applicable state or federal regulations. The Head of the Fire Department and the State Fire Marshal's Office must approve the design submission or modification before any construction is commenced. The packet of plans and specifications shall include the following:

(1) The design review fee required by the Head of the Fire Department and the State Fire Marshal's Office;

(2) A cover letter providing an overview of the planned work, the location of the work and the legal name and address of the facility owner, operator and person(s) or company who will be conducting the work;

(3) A copy of the current and valid registration or copy of the license to store flammables (Form FP-2) issued under M.G.L. Chapter 148, § 13 or a current and valid permit if a license is not applicable under M.G.L. c. 148 § 13;

(4) Current permit (existing facilities only);

(5) Scaled design plans indicating the locations of all piers, storage tanks, piping systems, hoses, dispensing nozzle locations, equipment, signage, path of the electrical static grounding systems, fire access roadway(s), travel from the closest fire apparatus to the foot of the marine wharf, the location and type of water standpipe system, the location of the nearest hydrant, location of the piping system, flexible hose, couplings, control valves, and swing and swivel joints, and for mobile fueling facilities, the designated location(s) that the fuel truck shall park to dispense fuel. A notation on the plan legend shall indicate the location and type of fire extinguishing systems, fuel dispensing nozzles, and the maximum number of dispensing nozzles, which can be operated simultaneously;

(6) A statement that the blueprints, plans and specifications of the installation comply with the requirements of the provisions of this *Code* and any other applicable state or federal regulation;

(7) A clear indication of fire access roadways and appropriate signage as directed by the Head of the Fire Department to allow for local enforcement of fire lane designation;

(8) A detailed drawing of the entire marine wharf, and floats showing the fueling location, tie up area(s) and all of the berthing areas.

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 the Massachusetts State Electrical Code, 527 CMR 12: 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.

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 Publications.

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 D86, *Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure*.

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

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

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

ASTM D5305, *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, Code of Federal Regulations, 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, Code of Federal Regulations, 1910.1200, Occupational Safety and Health Administration (OSHA) *Hazard Communication*.
Title 29, Code of Federal Regulations, 1910.1450, Occupational Safety and Health Administration (OSHA) *Occupational Exposure to Hazardous Chemicals in Laboratories*.
Title 33, Code of Federal regulations, Part 126, *Handling of Dangerous Cargo at Waterfront Facilities.*
Title 40, Code of Federal Regulations, Part 60,—*Standards of Performance for New Stationary Sources.*
Title 40, Code of Federal Regulations, Part 68, 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, Code of Federal Regulations, 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 (TB 117-2013) Requirements, Test Procedure and Apparatus for Testing the Smolder Resistance of Materials Used in Upholstered Furniture.

Add the following:
2.3.19 Massachusetts Regulations
Code of Massachusetts Regulations (CMR) Publications:
Department of Public Health at 105 CMR.
Board of State Examiners of Plumbers and Gas Fitters at 248 CMR.
257 CMR 2.00: *Certification of Operators of Wastewater Treatment Facilities*
Department of Environmental Protection:
310 CMR 7: Air Pollution Control310 CMR 30.00: Hazardous Waste
310 CMR 80.00: *Underground Storage Tanks*
527 CMR 1.00: *MASSACHUSETTS COMPREHENSIVE FIRE SAFETY CODE*
527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*
Bureau of Pipe Fitters and Refrigeration Technicians at 528 CMR
780 CMR: Massachusetts *Amendments to the International Building Code (The State Building Code)*

Add the following:
2.3.19 Massachusetts General Laws Massachusetts General Laws **(M.G.L.).**
M. G. L. c. 21E: *Massachusetts Oil and Hazardous Material Release Prevention Act*
M. G. L. c 48: *Fires, Fire Departments and Fire Districts*
M. G. L. c. 22D: *Department of Fires Services*
M. G. L. c. 148: *Fire Prevention*
M. G. L. c. 148A: *Code Enforcement Officer*
M. G. L. c. 141: *Supervision of Electricians*
M. G. L. c. 142: *Supervision of Plumbing* (See chapter 10)
M. G. L. c. 143, § 3L: *Regulations Relative to Electrical Wiring and Fixtures; Notice of Electrical Installation*
M. G. L. c. 143 §96: *Specialized Codes Rules or Regulations.*

Add the following:
2.4 References for Extracts in Mandatory Sections.
NFPA 13, *Standard for the Installation of Sprinkler Systems*, 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.

Chapter 3 Definitions.
Modify this Chapter by adding, modifying, deleting, or deleting and replacing the follow terms in Chapter 3 as provided:

Delete and replace with the following definitions:
3.2.2 Authority Having Jurisdiction (AHJ). Authority Having Jurisdiction (AHJ) shall be the Head of the Fire Department or the State Fire Marshal and their designees, as defined in M.G.L. c. 148.
3.3.14.3 Control Area. A building or portion of a building, enclosed and bounded by exterior walls, fire walls, fire barriers and roofs, or a combination thereof, or an outdoor area within which hazardous materials are allowed to be stored, dispensed, used, or handled in quantities not exceeding the maximum allowable quantities (MAQ).
3.3.28 Boiling Point. The temperature at which the vapor pressure of a liquid equals the surrounding atmospheric pressure. For the purposes of this classification if an accurate boiling point is unavailable for the material in question or if a mixture does not have a constant boiling point, the 20% evaporated point of a distillation performed in accordance with ASTM D 86 shall be used as the boiling point of the liquid.
3.3.30 Building. A combination of any materials, whether portable or fixed, having a roof, to form a structure for the shelter of persons, animals or property. For the purpose of this definition "roof" shall include an awning or any similar covering, whether or not permanent in nature. The word "building" shall be construed where the context allows as though followed by the words "or part or parts thereof".
3.3.40 Certificate. A written document for the purpose of granting permission to conduct or engage in any operation or act for which certification is required by way of one or more of the following:

Add the following terms and definitions:
3.3.40.1 Competency. A written document issued by the State Fire Marshal to a person who has passed an examination for a particular profession which allows that person to be in charge of and responsible for the regulated activity.
3.3.40.2 Fireworks User's Certificate. A certificate which allows a person, firm, corporation or other legal entity to use or handle fireworks.
3.3.40.3 Explosives Users Certificate. A certificate issued to a firm or company, indicating the rebuttable presumption of statutory and regulatory compliance with responsible levels of liability insurance and bonds required by M.G.L. c. 148, §§ 19, 20 and 20A, explosive storage magazines, and a general knowledge of the requirements of explosive regulations in the use or handling of explosives.
3.3.40.4 Registration. A written document issued by the State Fire Marshal to a person, firm or corporation for the purpose of granting permission to conduct or engage in servicing fire extinguishing systems.

Delete and replace with the following definitions:
3.3.54.1 ***Building Code*** referenced in Section 2.3.19.
3.3.54.2 ***Electrical Code*** referenced in section 2.2 and 2.3.19
3.3.54.3 ***Mechanical Code*****.** The Building Code as referenced in Section 2.3.19.
3.3.54.4 ***Plumbing Code*** referenced in section 2.3.19
3.3.54.5 This ***Code*** as referenced in section 2.3.19, 527 CMR 1.00: Massachusetts Comprehensive Fire Safety Code

Delete the following terms and definitions:
3.3.71 Consumer Fireworks Retail Sales Area.
3.3.72 Consumer Fireworks Retail Sales Facility (CFRS Facility).
3.3.73* Consumer Fireworks Retail Sales (CFRS) Stand.

Modify the following terms:
3.3.127* Fireworks. Unless excluded by M.G.L. c. 148 §39, any composition or device for the purpose of producing a visible or an audible effect for entertainment purposes by combustion, deflagration, or detonation, and meets the definition of *Consumer Fireworks* or *Display Fireworks* as set forth in this *Code*.
3.3.127.2* ***Display Fireworks*****.** Shall include the use of consumer fireworks as part of a display show and large fireworks devices that are explosive materials intended for use in fireworks displays and designed to produce visible or audible effects by combustion, deflagration, or detonation, as set forth in CPSC 16 CFR 1500 and 1507, 49 CFR 172, and APA Standard 87-1, *Standard for the Construction and Approval for Transportation of Fireworks, Novelties, and Theatrical Pyrotechnics*.

Delete and replace with the following definitions:
3.3.143 Handling. The deliberate transport by any means to a point of storage, use, or processing.
3.3.145* Physical Hazard. A chemical for which there is evidence that it is a combustible liquid, compressed gas, cryogenic, explosive, flammable gas, flammable liquid, flammable solid, organic peroxide, oxidizer, pyrophoric or unstable (reactive) or water-reactive material.
3.3.157* Incident Commander (IC). The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and the release of resources. The IC has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site.

3.3.173.14* ***Unstable (Reactive) Material.*** A material, other than an explosive, which in the pure state or as commercially produced, will vigorously polymerize, decompose, condense or become self-reactive and undergo other violent chemical changes, including explosion, when exposed to heat, friction or shock, or in the absence of an inhibitor, or in the presence of contaminants, or in contact with incompatible materials. Unstable (reactive) materials are subdivided and defined as follows:
Class 4. Materials that in themselves are readily capable of detonation or explosive decomposition or explosive reaction at normal temperatures and pressures. This class includes materials that are sensitive to mechanical or localized thermal shock at normal temperatures and pressures.
Class 3. Materials that in themselves are capable of detonation or of explosive decomposition or explosive reaction, but which require a strong initiating source or which must be heated under confinement before initiation. This class includes materials that are sensitive to thermal or mechanical shock at elevated temperatures and pressures.
Class 2. Materials that in themselves are normally unstable and readily undergo violent chemical change, but do not detonate. This class includes materials that can undergo chemical change with rapid release of energy at normal temperatures and pressures, and that can undergo violent chemical change at elevated temperatures and pressures.
Class 1. Materials that in themselves are normally stable, but which can become unstable at elevated temperatures and pressure.

Add the following terms and definitions:
3.3.173.15.1 ***Class 3.*** Materials that react explosively with water without requiring heat or confinement.
3.3.173.15.2 ***Class 2.*** Materials that may form potentially explosive mixtures with water.
3.3.173.15.3 ***Class 1.*** Materials that may react with water with some release of energy, but not violently.
3.3.188.1.6 ***Unclassified Detonable.*** Organic peroxides that are capable of detonation. These peroxides pose an extremely high explosion hazard through rapid explosive decomposition.
3.3.191.5 ***Oxidizing Gas.*** A gas that can support and accelerate combustion of other materials.

Delete and replace with the following definitions:
3.3.205 Process or Processing. A sequence of operations in which the sequence can be inclusive of physical operations such as heating, cooling, mixing, distilling, compressing, and pressurizing, and chemical operations, such as polymerization, oxidation, reduction, and other chemical reaction processes. The sequence can involve but is not limited to: preparation, separation, combination, purification, or any actions that cause a change in state, energy content, or chemical composition.
3.3.210 Pyrophoric. A chemical with an autoignition temperature in air, at or below a temperature of 130°F (54.4°C).
3.3.234.2 ***Flammable Solid.*** A solid, other than a blasting agent or explosive, that is capable of causing fire through friction, absorption or moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which has an ignition temperature below 212°F (100°C) or which burns so vigorously and persistently when ignited as to create a serious hazard.
3.3.251 Structure. A combination of materials assembled at a fixed location to give support or shelter, such as a building, framework, retaining wall, tent, reviewing stand, platform, bin, fence, sign, flagpole, mast for radio antenna or the like. The word “structure” shall be construed, where the context allows, as though followed by the words “or part or parts thereof”.

Add the following terms and definitions:
3.3.254.8 Underground Storage Tank (UST). As defined and regulated by 310 CMR 80.00: Underground Storage Tanks.
3.3.275 Water-reactive Material. A material that explodes; violently reacts; produces flammable, toxic or other hazardous gases; or evolves enough heat to cause self-ignition or ignition of nearby combustibles upon exposure to water or moisture. Water-reactive Material are subdivided and defined as follows:
Class 3. Materials that react explosively with water without requiring heat or confinement.
Class 2. Materials that may form potentially explosive mixtures with water.
Class 1. Materials that may react with water with some release of energy, but not violently.

Chapter 4 General Requirements.
Delete Chapter 4 in its entirety and revise to read as follows:

4.1.1* Goals. The goals in Chapter 4 of this *Code* shall be used as guidance to achieve a reasonable level of safety, property protection, and public welfare from the hazards created by fire, explosion, and other hazardous conditions. The prescribed requirements are found in other Chapters of this *Code* and the building code.
4.4 Fundamental Requirements.
4.4.3 Means of Egress.
4.4.3.1 Unobstructed Egress.
4.4.3.1.1 In every occupied building or structure, means of egress from all parts of the building shall be maintained free and unobstructed.

4.4.3.1.2 No lock or fastening shall be permitted that prevents free escape from the inside of any building other than in health care occupancies and detention and correctional occupancies where staff are continually on duty and effective provisions are made to remove occupants in case of fire or other emergency.

4.4.3.2 Awareness of Egress System.
4.4.3.2.1 Every exit shall be clearly visible, or the route to reach every exit shall be conspicuously indicated in accordance with the building code.
4.4.3.2.2 Each means of egress, in its entirety, shall be arranged or marked so that the way to a place of safety is indicated in a clear manner in accordance with the building code.
4.4.3.2.3 Lighting. Illumination of means of egress shall be provided in accordance with the building code.

4.5 General Requirements.
4.5.1 Authority Having Jurisdiction (AHJ).
4.5.1.1 The AHJ shall determine whether the provisions of this *Code* are met.
4.5.1.2 Where it is evident that a reasonable degree of safety is provided, any requirement shall be permitted to be modified if its application would be hazardous under normal occupancy conditions in the judgment of the AHJ.
4.5.3 Provisions in Excess of Code Requirements. Nothing in this *Code* shall be construed to prohibit a better type of building construction, an additional means of egress, or an otherwise more safe condition than that specified by the minimum requirements of this *Code*.
4.5.4 Conditions for Occupancy. No new construction or existing building shall be occupied in whole or in part in violation of the provisions of this *Code* unless the following conditions exist:
(1) A plan of correction has been approved.
(2) The occupancy classification remains the same.
(3) No serious life safety hazard exists as judged by the AHJ.
4.5.5 Warrant of Fitness.
4.5.5.1 Where compliance with this *Code* is effected by means of a performance-based design, the owner shall annually certify compliance with the conditions and limitations of the design by submitting a warrant of fitness acceptable to the AHJ.
4.5.5.2 The warrant of fitness shall attest that the building features, systems, and use have been inspected and confirmed to remain consistent with design specifications outlined in the documentation required by 5.1.8 and 5.7.3 and that they continue to satisfy the goals and objectives specified in Section 4.1.1 *(Section 5.1.11.)*
4.5.6 Construction, Repair, and Improvement Operations.
4.5.6.1 Buildings or portions of buildings shall be permitted to be occupied during construction, repair, alterations, or additions only where required means of egress and required fire protection features are in place and continuously maintained for the portion occupied or where alternative life safety measures and building protection measures acceptable to the AHJ are in place.
4.5.6.2 Escape Facilities.
4.5.6.2.1 In buildings under construction, adequate escape facilities shall be maintained at all times for the use of construction workers as provided in the building code.
4.5.6.2.2 Escape facilities shall consist of doors, walkways, stairs, ramps, fire escapes, ladders, or other approved means or devices arranged in accordance with the general principles of the *Code* and as provided in the building code insofar as they can reasonably be applied to buildings under construction.
4.5.6.3 Flammable, hazardous, or explosive substances or equipment for repairs or alterations shall be permitted in a building while the building is occupied if the condition of use and safeguards provided do not create any additional danger or impediment to egress beyond the normally permissible conditions in the building and is such that materials are safeguarded when the building is unoccupied.

4.5.7* Changes of Occupancy.
4.5.7.1 In any building or structure, whether or not a physical alteration is needed, a change from one occupancy classification to another shall be permitted only where such a structure, building, or portion thereof conforms with the requirements of this *Code*, the provisions of the building code and applicable codes that apply to new construction for the proposed new use, except as follows:
(1) Where, in the opinion of the AHJ, the proposed occupancy or change in use is not more hazardous than the existing use, based on life safety and fire risk, the AHJ shall be permitted to approve such change of occupancy provided compliance with the requirements of this *Code* for buildings of like occupancy or use are specifically incorporated to safeguard the life, health, and welfare of persons.
(2) Change of tenants or ownership shall not be construed to be a change of occupancy classification where the nature of use and assigned occupancy classification remain the same.
4.5.7.2 Where specifically permitted elsewhere in the *Code*, existing construction features shall be permitted to be continued in use in conversions.

4.5.8 Maintenance, Inspection, and Testing.
4.5.8.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this *Code*, such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained. Maintenance shall be provided in accordance with

this *Code*, requirements developed as part of an approved performance-based design, or as approved by the AHJ in accordance with Section 1.4.1.

4.5.8.2 No existing life safety feature shall be removed or reduced where such feature is a requirement for new construction. [*101*:4.6.12.2]

4.5.8.3* Existing life safety features obvious to the public, if not required by the *Code*, shall be either maintained or removed. [*101*:4.6.12.3]

4.5.8.4* Existing life safety features that exceed the requirements for new buildings shall be permitted to be decreased to those required for new buildings. [*101*:4.6.7.4]

4.5.8.5* Existing life safety features that do not meet the requirements for new buildings, but that exceed the requirements for existing buildings, shall not be further diminished. [*101*:4.6.7.5]

4.5.8.6 Any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature requiring periodic testing, inspection, or operation to ensure its maintenance shall be tested, inspected, or operated as specified elsewhere in this *Code* or as directed by the AHJ. [*101*:4.6.12.4]

4.5.8.7 Maintenance, inspection, and testing shall be performed at specified intervals in accordance with applicable NFPA standards or as approved by the AHJ in accordance with Section 1.4.

4.5.9 Noncombustible Material. A material that complies with any one of the following shall be considered a noncombustible material:

(1) The material, in the form in which it is used and under the conditions anticipated, will not ignite, burn, support combustion, or release flammable vapors, when subjected to fire or heat

(2) The material is reported as passing ASTM E 136, *Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 Degrees C*

(3) The material is reported as complying with the pass/fail criteria of ASTM E 136 when tested in accordance with the test method and procedure in ASTM E 2652, *Standard Test Method for Behavior of Materials in a Tube Furnace with a Cone-shaped Airflow Stabilizer, at 750 Degrees C* [5000: 7.1.4.1]

4.5.10 Limited-Combustible Material. A material shall be considered a limited-combustible material where both of the following conditions of 4.5.10.1, and 4.5.10.2, and the conditions of either 4.5.10.3 or 4.5.10.4, are met. [5000:7.1.4.2]

4.5.10.1 The material does not comply with the requirements for a noncombustible material in accordance with 4.5.9. [5000: 7.1.4.2(1)]

4.5.10.2 The material, in the form in which it is used, exhibits a potential heat value not exceeding 3500 Btu/lb (8141 kJ/kg) where tested in accordance with NFPA 259, *Standard Test Method for Potential Heat of Building Materials*. [5000:7.1.4.2(2)]

4.5.10.3 The material has a structural base of a noncombustible material with a surfacing not exceeding a thickness of 1/8 in. (3.2 mm) where the surfacing exhibits a flame spread index not greater than 50 when tested in accordance with ASTM E 84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, or ANSI/UL 723, *Standard for Test for Surface Burning Characteristics of Building Materials*. [5000:7.1.4.2.1]

4.5.10.4 The material is composed of materials which, in the form and thickness used, neither exhibit a flame spread index greater than 25 nor evidence of continued progressive combustion when tested in accordance with ASTM E 84 or ANSI/UL 723, and are of such composition that all surfaces that would be exposed by cutting through the material on any plane would neither exhibit a flame spread index greater than 25 nor evidence of continued progressive combustion when tested in accordance with ASTM E 84 or ANSI/UL 723. [5000: 7.1.4.2.2]

4.5.10.5 Where the term limited-combustible is used in this *Code*, it shall also include the term noncombustible. [5000:7.1.4.2.3]

Chapter 5 Performance Based Option.

Delete Chapter 5 in its entirety and revise to read as follows:

5.1* General.

5.1.1 Application. The requirements of this Chapter shall apply to facilities designed to the performance-based option permitted by the building code or this *Code.*

5.1.2 Goals and Objectives. The performance-based design shall meet the goals and objectives of this *Code* in accordance with the building code or this *Code*.

5.1.4* Plan Submittal Documentation. When a performance-based design is submitted to the AHJ and the Building Official for review and approval, the owner shall document, in an approved format, each performance objective and applicable scenario, including any calculation methods or models used in establishing the proposed design's fire and life safety performance.

5.1.5* Independent Review. The AHJ shall be permitted to require an approved, independent third party to review the proposed design and provide an evaluation of the design to the AHJ at the expense of the owner.

5.1.7 Final Determination. The AHJ and the Building Official shall make the final determination as to whether the performance objectives have been met.

5.1.8* Operations and Maintenance Manual. An approved Operations and Maintenance (O&M) Manual shall be provided by the owner to the AHJ and shall be maintained at the facility in the fire command center.
5.1.9* Information Transfer to the Fire Service. Where a performance-based design is approved and used, a registered design professional shall ensure that information regarding the operating procedures of the performance-based designed fire protection system is transferred to the owner and to the AHJ for inclusion in the pre-fire plan.
5.1.10* Design Feature Maintenance.
5.1.10.1 The design features required for the facility to meet the performance goals and objectives shall be maintained by the owner and be readily accessible to the AHJ for the life of the facility.
5.1.10.2 The facility shall be maintained in accordance with all documented assumptions and design specifications.
5.1.10.2.1 Any proposed changes or variations from the approved design shall be approved by the AHJ and the building inspector prior to the actual change.
5.1.10.2.2 Any approved changes to the original design shall be maintained in the same manner as the original design.
5.1.11* Annual Certification. Where a performance-based design is approved and used, a registered design professional shall annually certify to the AHJ and the Building Official that the design features and systems have been maintained in accordance with the approved original performance-based design and assumptions and any subsequent approved changes or modifications to the original performance-based design.

5.7.3 Facility Design Specifications. All details of the proposed facility design that affect the ability of the facility to meet the stated goals and objectives shall be documented.

Chapter 6 Classification of Occupancy
Delete Chapter 6 in its entirety.

Chapter 10 General Safety Requirements.
Modify this Chapter by adding, deleting or replacing the following Sections as provided below:

Delete the following Section:
10.1.2*

Replace with the following Section:
10.1.3 Building Code. All new construction shall comply with this *Code* and the building code.

Replace with the following Section:
10.1.4.1 Where structural elements have visible damage, the AHJ shall notify the Building Official.

Delete the following Section:
10.1.4.2

Delete the following Section:
10.1.5

Replace with the following Section:
10.3.4.1 In any building or structure, whether or not a physical alteration is needed, a change from one use or occupancy classification to another shall comply with the building code.

Replace with the following Section:
10.4.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this *Code*, such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained. Maintenance shall be provided in accordance with this *Code*, the building code and applicable NFPA requirements, or requirements developed as part of a performance-based design.

Replace with the following Section:
10.4.3 Existing life safety features obvious to the public, if not required by this *Code*, shall be either maintained or removed as provided in M.G.L. c148 §.27A.
Replace with the following Section:
10.4.4 Any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature requiring periodic testing, inspection, or operation to ensure its maintenance shall be tested, inspected, or operated as specified elsewhere in this *Code* and the building code.

Add the following Section:
10.5.2.1 Overcrowding. Overcrowding or admittance of any person beyond the established posted occupant load shall be prohibited. The Head of the Fire Department, upon finding overcrowded conditions or obstructions in aisles, passageways or other means of egress, or any condition which constitutes a hazard to life and safety shall cause the performance, presentation, spectacle or entertainment to be stopped until the area posted occupant load is re-established or the obstruction or hazardous condition is removed.

Replace with the following Section:
10.6.1 Where Required. Emergency egress and relocation drills conforming to the provisions of this *Code* shall be conducted as specified by the provisions of Chapter 20 of this *Code.* Drills shall be designed in cooperation with the local authorities.

Replace with the following Section:
10.6.2* Drill Frequency. Emergency egress and relocation drills, where required by Chapter 20 of this *Code,* shall be held with sufficient frequency to familiarize occupants with the drill procedure and to establish conduct of the drill as a matter of routine. Drills shall include suitable procedures to ensure that all persons subject to the drill participate.

Delete the following Section:
10.7.2

Delete the following Section:
10.7.4

Replace with the following Section:
10.8 Tampering with Fire Safety Equipment. See M.G.L. c.266 and M.G.L. c.148 § 27A.

Replace with the following Section:
10.9.1 Where required. Emergency plans shall be provided for high-rise, health care, ambulatory health care, residential board and care, assembly, daycare centers, special amusement buildings, hotels and dormitories, housing for the elderly for 6 or more dwelling units, detention and correctional occupancies, educational, bulk merchandising retail buildings, underground and windowless structures, facilities storing or handling materials covered by Chapter 60, or where required by the AHJ.

Modify the following title:
10.11 Open Flame, Candles, Outdoor Fires.
10.11.1 Permits. Permits, where required, shall comply with Section 1.12.
10.11.1.1 Fires for cooking and recreational purposes shall comply with the provisions of M.G.L. c. 48, § 13 and the rules and regulations of the State Forester and regulations of the Department of Environmental Protection.
10.11.2 The AHJ shall have the authority to prohibit any or all open flames, candles where circumstances make such conditions hazardous.
10.11.3 Outdoor Fires.
10.11.3.1*Outdoor fires shall comply with the provisions of M.G.L. c. 48, § 13 and the rules and regulations of the State Forester, and regulations of the Department of Environmental Protection.

Delete: 10.11.4 through 10.11.4.1

Add the following Sections:
10.11.4.1.1 Bonfires and the Burning of Christmas Trees.
10.11.4.1.1.1 Ceremonial Bonfires. The city council of a city with the approval of its mayor, or the board of selectmen or town council of a town, may authorize the fire department of such city or town to issue not more than one permit in any one year for a ceremonial bonfire. Such bonfires shall mark the observance of a significant municipal, state or national event, and such ceremonial bonfire shall be under the continuous supervision of the fire department. Only wood which has not been painted, impregnated, or otherwise treated with any foreign substance shall be permitted to burn in ceremonial bonfires. No bonfire shall burn for more than 12 hours. (M.G.L. c. 111, § 142 H.)
10.11.4.1.1.2 Bonfires from July 2 to July 6. Any civic, fraternal, veteran, community or business organization may build and ignite bonfires under the supervision and control of the fire department of the city or town in which such burning takes place during the period from July 2 to July 6. (M.G.L. c. 111, § 142I.)
10.11.4.1.1.3 Burning of Christmas Trees. Any person may burn Christmas trees during the period from December 26 to January 7, provided that such burning is under the supervision and control of the fire department. (M.G.L. c. 111, § 142G.)

Replace with the following Section:
10.11.6 Appliances - Cooking.

10.11.6.1 General. Cooking appliances shall be kept clean during and cleaned after each use. Cooking appliances shall never be left unattended after the cooking appliance is kindled. Cooking appliances shall be stored only after the appliance is cleaned; the appliance is cool to the human touch and; the fuel is disconnected and removed from the appliance. Cooking appliances shall not be altered, used, kindled, placed, or stored in a manner that is not established by the manufacturer's instructions of the appliance and its equipment.

10.11.6.2 Terms. As used in this section, the enclosed terms shall have the following meaning assigned to them.

(1) Appliance (cooking). Utilization equipment, generally other than industrial, that is normally built in standardized sizes or types and is used, installed or connected as a unit to perform one or more functions such as grills, ranges, cook top units, wall ovens , and chimineas or similar such appliances.

(2) Balcony. A structure attached to a building with no exterior stairs other than through the attached building.

(3) Deck, (including porches, and patios). A structure attached to a building where constructed above grade has exterior stairs extending to grade.

(4) Equipment. (cooking). The component of an appliance, such as the hose, burner, heating element, electronic controls, igniters, heat exchanger, container or regulator that is designed specifically for the purpose and constructed with approved safety standards and tested by a recognized product testing agency. See Chapter 3, for the term Listed 3.2.6*.

(5) Grade (as it applies to balconies and decks). On earth; or on blocks, slab or of other approved material placed on earth and elevated not greater than 30 inches from earth.

(6) Permanent. Fastened in place, and cannot be easily moved without requiring the disconnection of fasteners, piping, fittings.

(7) Solid Fuel. Includes wood, charcoal, pellet fuels , and any other non-gasious fuel but not including fuel generation or co-generation of electric energy.

10.11.6.3 Solid Fuel, Gaseous Fuel, and Electric Cooking and Heating Appliances Use and Storage on Balconies and Decks or under Overhangs and Structures.

10.11.6.3.1 All cooking and heating appliances shall be permitted to be used, kindled, or stored on a balcony or deck unless specifically prohibited or restricted below.

10.11.6.3.2 No solid fuel cooking and heating appliances shall be permitted to be used, kindled, or stored on any balcony.

10.11.6.3.3 No gaseous fuel cooking and heating appliances shall be used, kindled, or stored on any balcony located above grade, unless permitted to be permanently installed pursuant to its equipment listings.

10.11.6.3.4 No cooking or heating appliances shall be used, installed, kindled or stored on any fire escape balcony.

10.11.6.3.5 No cooking or heating appliances shall be used, installed, kindled or stored on any balcony or deck where the balcony or deck is enclosed by a roof, walls, other than the wall of the attached building, or any covering that would prevent air circulation, unless a sprinkler system is installed in accordance with the building code, or such appliance is permitted by the manufacturer's instructions and equipment listings.

10.11.6.3.6 No equipment of any cooking and heating appliances shall be permitted to be used or stored under any overhang; less than 10' from a building; unless a sprinkler system is installed in accordance with the building code; or it is permitted by the manufacturer's instructions and equipment listings. The storage of any cooking or heating appliances under the overhang or 10 ft (3m) from a building shall be permitted only when its fuel is not present within or near any cooking or heating appliance, unless such appliance is permanently installed.

10.11.6.3.7 All appliances that are permanently installed shall be approved by the specialized code official.

Add 10.11.6.4

10.11.6.4 LP-Gas Containers (cylinders) 1-lb or Greater, Use, Placement at Dwellings.

10.11.6.4.1 Containers shall only be transported using exterior means independent from the attached building.

10.11.6.4.2 Containers shall not be placed inside or pass through any building.

10.11.6.4.3 Containers shall not be stored or obstruct ingress or egress of any building.

10.11.6.4.4 Containers having water capacities greater than 2.7 lb (1 kg) [nominal 1 lb (0.5 kg) LP-Gas capacity] shall not be located on decks or balconies of dwellings of two or more living units above the first floor unless the deck or balcony is served by exterior stairways.

Add Table 10.11.6

Tab le 10.11.6 Appliances - Cooking/ Heating						
Balcony See 10.11.3 .2 (2)				Deck, Porch . Patio . See 10.11.6 .2 (3)		
*NOT Permitted under overhangs, roofs or enclosed in by walls or within 10 ' of a building[1]; unless sprinklered pursuant to the *building code*.						
F u el	Gaseous Fuels	Solid (7) Fuels	Electric	Gaseous Fuels	Solid (7) Fuels	Electric
Type of Appliance	Cooking and Heating Appliance	Cooking and Heating Appliance	Cooking and Heating Appliances	Cooking and Heating Appliances	Cooking and Heating Appliance	Cooking and Heating Appliances
Grade	Permitted * See 10.1.7; 10.11.6.3.4 and 10.11.6.4	Not Permitted See 10.11.6.3.2	Permitted See 10.1.7 and 10.11.6.3.1	Permitted * See 10.1.7; 10.11.6 .3 and 10.11.6.3.6	Permitted * See 10.1.7; 10.11.6.3.5 and 10.11.6.3.6	Permitted See 10.1.7; and 10.11.6.3.1
Above Grade	Not Permitted unless permanently installed* See 10.1.7; 10.11.6.3.3; 10.11.6.3.5 and 10.11.6.4					

Note 1 : For the purposes of this section a structure or building is not considered the decking of a balcony, or a deck.

Delete the following Section:
10.11.8through 10.11.8.3

Replace with the following Section:
10.11.9.1 Welding torches, tar pots, fire lanterns, and other devices, machines, or processes liable to start or cause fire shall not be operated or used in or upon any areas, except by permit from the AHJ.

Delete the following Section:
10.12.1.3

Replace with the following Section:
10.12.3.1 Enclosed stairs serving three or more stories and existing enclosed stairs serving five or more stories shall be maintained in accordance with the building code approved at the time of construction and maintenance.

Delete the following Sections:
10.12.3.1.1 through 10.12.3.1.13

Delete the following Sections:
10.12.3.2through 10.12.3.2.2

Replace with the following Section:
10.12.3.3* Stairway Tread Marking. Where new contrasting marking is applied to stairs, such marking shall be maintained in accordance with the provisions of the building code in effect at the time of construction and maintenance.

Delete the following Section:
10.12.3.4

Add the following Sections.

10.12.4 Inner Courts Specialized Construction.

10.12.4.1 Any inner court not protected by a roof shall have a parapet or guard at least 42 inches high.

10.12.4.2 Where a roof is provided over an inner court it shall be constructed as prescribed by the building code.

10.12.4.3 Where a skylight is provided it shall support a minimum of 40 lbs. per square foot, or shall have a parapet or guard at least 42 inches high.

Replace the following title:

10.13 Vacant Buildings and Premises.

Replace the following Section:

10.13.1 Every person owning or having charge or control of any vacant building, premises, or portion thereof shall remove all combustible storage, waste, refuse, and vegetation and shall lock, barricade, or otherwise secure the building or premises to prohibit entry by unauthorized persons pursuant to M.G. L. c.143 §.6 through 14 and the building code.

Delete the following Section.

10.13.1.1

Replace the following Section:

10.13.2 All fire protection systems shall be maintained in service in vacant buildings.

10.13.2.1 With the approval of the AHJ, fire protection and fire alarm systems in vacant buildings shall be permitted to be removed from service as provided in M.G.L c.148 § 27A.

10.13.2.2 When required by the AHJ, other systems or components pertaining to fire protection shall be maintained as provided in M.G.L c.148 § 27A.

Add the following Sections.

10.13.4 Any owner of a building who has been notified that said building shall be made safe or secure under the provisions of the building code, shall:

(1) Remove all materials determined by the Head of the Fire Department or Building Official to be dangerous in case of fire.

(2) Secure all floors accessible from grade utilizing one of the following methods so long as such method is approved by the Head of the Fire Department and Building Official in writing:

- **(a)** Secure all window and door openings in accordance with the U.S. Fire Administration, Arson Prevention Initiative Board Up Procedures (www.usfa.dhs.gov/downloads/pdf/publications/napi4.pdf) continuously until such time as the building is reoccupied; or
- **(b)** Provide 24 hour watchman services, continuously until such time as the building is reoccupied; or
- **(c)** Provide a monitored intruder alarm system at the perimeter of all floors accessible from grade, continuously until such time as the building is reoccupied.

10.13.4.1 Said owner, as the case may be, shall notify the Building Official that the approved method chosen to secure the building has been incorporated.

10.13.4.2 Said owner shall allow the Building Official to enter the building for an inspection to ascertain that the building is secured and made safe. Said owner shall allow the Head of the Fire Department to enter the building.

10.13.4.3 The Building Official shall be supplied with records of maintenance and operation if the provisions of Section 10.13.4(2)(b) or (c) are used as provided in the building code.

10.13.4.4 The owner shall maintain any existing fire alarms or sprinkler systems unless written permission is obtained from the Head of the Fire Department in accordance with M.G.L. c. 148 § 27A to shut off or disconnect said alarms or systems.

10.13.4.5 The owner shall maintain utilities unless written permission is obtained from the Building Official to disconnect said utilities. Permission to disconnect utilities shall not be granted if it will result in inadequate heat to prevent freezing of an automatic sprinkler system or inadequate utilities to maintain any other protection systems.

10.13.4.6 The requirements of Section 10.13.4 do not prevent a Building Official from ordering or taking expeditious, temporary security measures in emergency situations pending the completion of the requirements of Section 10.13.4.

10.13.4.7 For the purposes of Section 10.13.4.6, an “emergency situation” shall be defined as: an unexpected incident, which by its very nature may present a threat to public safety personnel who may be required to affect a rescue effort or conduct fire extinguishment operations.

10.13.4.8 Upon refusal or neglect of said owner to comply with such notice, any Building Official acting under the authority of the building code, shall cause to be secured all window and door openings accessible from grade in accordance with the U.S. Fire Administration, Arson Prevention Initiative Board-Up Procedures or other equivalent procedure approved by the Head of the Fire Department, continuously until such time as the building is reoccupied.

10.13.4.9 Any building which has been made to conform to the provisions of Section 10.13.4 during vacancy may be reoccupied under its last permitted use and occupancy classification, provided that any systems which were disconnected or shut down during the period of vacancy are restored to fully functional condition and subject to the building code and M.G.L. c. 40A. The Building Official shall be notified in writing prior to re-occupancy. If said building is changed in use or occupancy or otherwise renovated or altered it shall be subject to the applicable provisions of the building code.

Add the following Sections.
10.13.5 Any building determined to be especially unsafe in case of fire, under the provisions of the building code shall be identified and caused to be marked by the Building Official, with the cooperation of the Head of the Fire Department, to indicate the degree of hazard.
10.13.5.1 In marking such buildings, the following symbols shall be used:


This symbol shall mean that interior hazards exist to such a degree that interior operations shall be conducted with extreme caution. This symbol shall not in any way limit the discretion of the on scene Incident Commander in directing operations that the Incident Commander deems necessary.


This symbol shall mean that exterior or interior hazards exist to such a degree that consideration should be given to conduct operations from the exterior only. This symbol shall not in any way limit the discretion of the on scene Incident Commander in directing operations that the Incident Commander deems necessary.
10.13.5.2 Markings shall be applied on the front of the building at or above the second floor level, where practical, between openings such that they are visible from the street. Markings may be applied to the sides or the rear of a building if the Head of the Fire Department deems such placement necessary. Markings shall also be applied in a conspicuous place near every entrance, and on penthouses. Markings shall not be applied over doors, windows, or other openings where they may be obscured by smoke or fire.
10.13.5.3 Markings shall be a minimum of 24 inches by 24 inches. Markings shall either be on a placard with a reflective background or painted with a reflective paint of contrasting color directly on the surface of the building. Stripes and borders outside of the marking shall be a minimum of two inches wide.
10.13.5.4 All markings shall bear a date as to when applied or the date of the most recent inspection.
10.13.5.5 Prior to receiving a mark, all buildings shall be inspected thoroughly by the Head of the Fire Department.

Modify the following table.
10.14.1.1 Christmas tree placement within buildings shall comply with Table 10.14.1.1.

Table 10.14.1.1 Provisions for Christmas Trees by Occupancy

Occupancy	No Tree Permitted	Cut Trees permitted Sprinkler System Required	Cut Trees permitted W/O Sprinkler System	Balled Tree Permitted
Ambulatory health care	**X**			
Apartment Buildings		X Within the unit	X Within the unit	X Within the unit
Assembly	X			
Board and care	X			
Business		X		X With Automatic Sprinklers
Daycare	X			
Detention and correctional	X			
Dormitories	X			
Educational	X			
Health care	X			
Hotels	X			
Industrial		X		X With Automatic Sprinklers
Lodging and rooming				X
Mercantile		X		X With Automatic Sprinklers

Add the following Section:
10.14.10.4 The Use of Mulch.
10.14.10.4.1 Mulch shall not be newly applied within 18 inches of any combustible portion of any building [See Figure 10.14.10.4.1(a) below].
Exception: Any building, regardless of the existence of fire separations, containing six (6) dwelling units or less.
10.14.10.4.2 Mulch as used here shall mean any type of forest material that is produced for the purpose spreading or application over the surface of the soil as a protective cover, to retain moisture, reduce erosion, provide nutrients, suppress weed growth, seed germination and for general landscaping purposes.

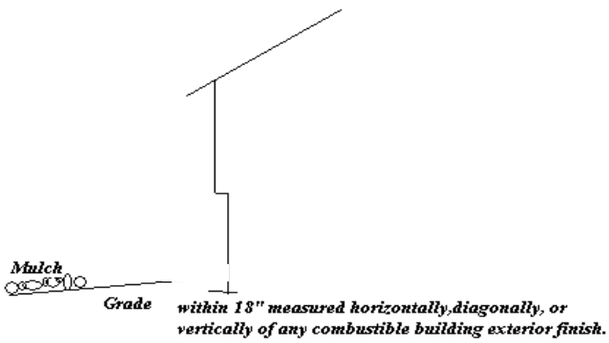


Figure 10.14.10.4.1(a)

Replace the title for following Section:
10.15 Outdoor Events, Carnivals, and Fairs.

Delete the following section:
10.15.1

Delete the following section:
10.15.4

Replace with the following Section:
10.15.6 Smoke and Carbon Monoxide Detection. A minimum of one single station smoke alarm and CO detector shall be located within each sleeping area in all stock or equipment trailers when they are used for sleeping purposes.

Delete the following section:
10.15.11.1

Replace the following title.
10.16* Storage.

Add the following Section:
10.16.1.1 A person shall not store in any building or upon any premises more than 2,500 cubic feet gross volume of combustible empty packing cases, boxes, barrels or similar containers; or rubber tires, baled cotton, rubber, cork or other similarly combustible material without having obtained a permit from the Head of the Fire Department.

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

Replace with the following Section:
10.16.2 The storage of combustible or flammable material shall be confined to approved storage areas.

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

Replace with the following Section:
10.16.3 Inside Storage. Storage in buildings and structures shall be orderly, shall not be within two feet of the ceiling, and shall be located so as not to obstruct egress from the building.

Replace with the following Section:
10.16.4 Outside Storage. The outside storage of combustible or flammable materials shall not be more than 20 feet in height and shall be compact and orderly. Such storage shall be located as not to constitute a hazard and no less than 25 feet from any other building on the site or from a lot line.

Delete the following Sections:
10.17 through 10.17.2

Replace with the following Section:
10.19.6 Attic, Under-Floor, and Concealed Spaces. Attic, under-floor, and concealed spaces used for storage of combustible materials shall comply with the protection from hazards requirements for storage rooms in the building code.

Delete the following Sections:
10.20 through 10.20.1.4

Add the following Section:
10.21 Fumigation and Thermal Insecticidal Fogging. Any substance which by itself or in combination with any other substance emits or liberates a gas, fume or vapor used for the destruction or control of insects, fungi, vermin, germs, rats or other pests.

Add the following Section
10.21.1 Permit. Permits, where required, shall comply with Section 1.12.

Add the following Section
10.21.2 Fumigating Operations. Any building being so fumigated requiring a permit shall post at all entrances a warning sign of the fumigant hazard as described in Section 10.21.3.5.

Add the following Sections:
10.21.3 Fire Safety Requirements.
10.21.3.1 General. Any person conducting fumigation and thermal insecticidal fogging in any building, ship, vessel or enclosed space shall comply with the following fire protection and safety requirements.
10.21.3.2 Sources of Ignition. All fires, open flames and similar sources of ignition shall be eliminated from the space under fumigation or thermal insecticidal fogging.
10.21.3.3 Electricity. Electricity shall be shut off, except that circulating fans that are to be used shall be designed and installed so as not to create an ignition hazard. Electrical equipment shall be designed and installed in accordance with NFPA 70.
10.21.3.4 Notification. The Head of the Fire Department shall be notified in writing at least 24 hours before any building or structure is to be closed in connection with the use of any toxic or flammable fumigant. Such notification shall give the location of the building, structure, ship or enclosed space to be fumigated or fogged as well as its character and use, the fumigants or insecticides to be used, the person or persons in charge of the operation and the date and time when fumigation or fogging will be started. Notice of any fumigation or thermal insecticidal fogging shall be served with sufficient advance notice to the occupants of any building or other enclosed space involved in the operation to enable them to evacuate the premises.
10.21.3.5 Warning Signs. Suitable warning signs indicating the danger, type of chemical involved and recommended precautions, shall be posted on all doors and entrances to the premises and upon all gangplanks and ladders from the deck, pier or land to the ship. Such notice is to be printed in red ink on white background. Letters in the signs are to be at least two inches in height and shall state the date and time of the operation, the name of the operator in charge, together with a warning to the effect that the premises so occupied shall be vacated at least one hour before the operation is started and shall not be re-entered until the danger signs have been removed by the proper authorities.
10.21.3.6 Watchman. During the period fumigation is in progress, except when fumigation is conducted in a gastight vault or tank, a capable, alert watchman or watchmen shall remain on duty at the entrance or entrances to the building, ship or enclosed space fumigated until after the fumigation is completed and until the premises are properly ventilated and again safe for human occupancy. Sufficient watchmen shall be provided to prevent any person from entering the building, ship or enclosed space under fumigation without being observed.
10.21.3.7 Thermal Insecticidal Fogging Liquids. Thermal insecticidal fogging liquids with a flash point below 100°F (38° C) shall not be used.
10.21.3.8 Fire Protection Systems. Fire Protection system devices shall be adequately protected by covering or other means to isolate insecticidal fogging liquids from rendering a fire system device inoperable. (M.G.L. c. 148, § 27A)

Add the following Sections:
10.22 Canine Guards.
10.22.1 Permit. Permits, where required, shall comply with Section 1.12.
10.22.2 Any person having control of a mercantile, commercial or industrial establishment wherein canine guards are maintained, shall notify the Head of the Fire Department of the district, city or town within which such establishment is located that such canine guard is maintained therein. The Head of the Fire Department and the person giving such notification shall cooperate in determining the procedure to be taken for the safety of authorized persons entering such mercantile, commercial or industrial establishment.

Add the following Sections:
10.23 Use and Storage of Alcohol Based Hand Rub Preparations.
10.23.1 The use of wall-mounted or free-standing units used to dispense an alcohol based hand rub preparation shall comply with the following requirements:
(1) The maximum capacity of each dispenser shall be 41 ounces;
(2) The minimum separation distance between dispensers shall be 48 inches.
10.23.2 No alcohol based hand rub preparation dispenser shall be located directly over or adjacent to any ignition source such as, but not necessarily limited to, electrical outlets, light fixtures or electrical appliances or any open flame device.

Add the following Section:
10.24 Every school, college and university laboratory newly constructed or renovated, or any room used for similar purposes wherein corrosives or flammable liquids are handled or where open flame devices are used, shall be equipped with one or more Emergency Wash Systems.
10.24.1 Emergency Wash Systems shall include Drench/Deluge Showers, Hand Held Body/Face Washers and Deck Mounted Drench Hoses. The permanently mounted showers shall be located as close to the main door of the laboratory as possible (to provide an escape route), but should not be located greater than 50 feet from an experimental area.
10.24.2 The Drench/Deluge Showers, Hand Held Body/Face Washers and Deck Mounted Drench Hoses shall be installed in accordance with ANSI Z-358.1 and 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*. Each existing laboratory not equipped with an Emergency Wash System shall be equipped with at least one approved Fire Blanket, and a sign that reads:

"In Case of Clothing Fire
STOP, DROP and ROLL"

10.24.3 The location of the Emergency Wash System Stations and Fire Blankets shall be clearly indicated by signs of contrasting color, either RED and WHITE or GREEN and WHITE. The signs shall be at least 70 square inches in area bearing the words "EMERGENCY WASH STATION", or "SAFETY SHOWER" or "FIRE BLANKET".

10.24.3.1 Every wash station shall be tested by the owner of the building or his designee twice annually (every six months) for proper flow and operation. The owner shall, upon request, provide the fire department with the test result, (including but not limited to): date of test, station operation, system malfunctions, and the name of the person performing the test.
10.24.3.2 Each student shall be advised of the location and proper use of the above emergency safety equipment by the teacher, instructor, or person in charge of the class before the first experiment is conducted.
10.24.3.3 Each student shall also be instructed in the proper procedure for the extinguishment of clothing fires at least twice during the course, as directed by the Head of the Fire Department. The installation and operation of each safety device noted above shall be in order before the commencement of any class conducting laboratory experiments.

Chapter 11 Building Services
Modify this Chapter by adding, deleting, or replacing the following Sections in Chapter 11 as provided below:

Delete the following Sections:
11.1.1 through 11.1.4

Delete the following Sections:
11.1.8 through 11.1.8.6

Delete the following Section:
11.1.9.3

Delete the following Sections:
11.2 through 11.2.2

Delete the following Sections:
11.3 through 11.3.6.5.1.7

Add the following Section:

11.5.1.1.1 Definitions. Unless otherwise expressly stated, the following terms, for the purposes of this section shall have the following meanings.

Add the following terms:
11.5.1.1.1.1 Gravity Feed Burner. A burner which receives its oil supply by static head pressure due to elevation of the supply source.
11.5.1.1.1.2 Post Purge Control. An electrical control that is designed to allow the power-venter or burner to operate after the burner flame has shut off, thus purging the vent system and heating appliance of combustion gases.

Add the following Section:
11.5.1.1.2 This Section shall not apply to fuel oil burners installed in steam boilers of nine horsepower and over and operated above 15 psi, but shall apply to the fuel oil storage.

Add the following Sections:
11.5.1.1.3 Unsafe Heating Appliances. The Head of the Fire Department shall order the sealing (preventing the use) of any existing stove, oven, furnace, incinerator, boiler or any other heat producing device or appliance found to be defective or in violation of code requirements for existing appliances after giving 24 hours notice to this effect to any person, owner, firm, agent or operator in charge of same. However, the Head of the Fire Department shall seal any device or appliance without notice when inspection shows the existence of an immediate fire hazard or when imperiling human life. The sealed defective appliance shall remain withdrawn from service until all necessary repairs or alterations have been made.
11.5.1.1.3.1 Unauthorized Seal Removal. No person or user, firm or agent shall continue the use of any device or appliance which has been sealed or ordered sealed unless written authority to remove said seal is given by the Head of the Fire Department.

Add the following Sections:
11.5.1.10.5 General Requirements.

(1) Installation. All fuel oil burners and all equipment in connection therewith shall be installed and maintained in accordance with the manufacturer's installation and operation manual. Chimneys, connectors, direct vent systems and power-venters shall also be installed in accordance with the building code.
  (a) A person holding a certificate of competency as an oil burner technician may connect or disconnect for the purpose of repair or replacement, any device or control required by this *Code* to be part of an oil burner installation, or being an integral part of the oil burning equipment, at the connection on such device, control or part to be repaired or replaced, notwithstanding any contrary provision of M.G.L. c. 141.
  (b) ~~A~~**a**~~ny~~ person licensed as an electrician under M.G.L. c. 141 may do any electrical work in connection with the alteration, repair, or installation of oil burning equipment without being certified as an oil burner technician

(2) Automatic Shut Off. An approved automatic means to prevent abnormal discharge of fuel oil shall be provided for any fuel oil burner for which a competent attendant will not be constantly on duty in the room where the burner is located.

(3) Exposure to Fire. If any oil tank, oil burner, oil burner control or wiring related to an oil burner has been exposed to fire and is suspected of being damaged, the entire installation shall be made inoperative by the Head of the Fire Department who **s**hall so notify the owner or occupant of the building or structure. Said installation shall not be operated until approved by the Head of the Fire Department.

(4) Tank Removal. Unless otherwise provided for in Chapter 66, a permit shall be obtained from the Head of the Fire Department for the removal of a fuel oil storage tank. Any person removing a fuel oil storage tank from inside a building for a purpose other than replacement or repair, shall remove all fill and vent pipes.

(5) Fuel Oil. The grade of fuel oil used for any fuel oil burner shall be one which tests and experience have been shown to be suitable for use with that burner, but in no case shall the grade of fuel oil be heavier than that for which the burner has been designed or adjusted.

(6) Gravity Feed to Burners. Gravity feed shall be used only with a burner arranged to prevent abnormal discharge of oil at the burner by automatic means specifically approved for the burner in which it is used.

(7) Fuel Oil Delivery. Fuel oil shall not be delivered to any storage tank unless the deliverer has knowledge that a permit has been obtained in accordance with Section 1.12.8.2.4.

(8) Fuel oil shall not be delivered to a storage tank by means of a pump or under pressure in any case where a tight connection is made between the discharge line and the tank inlet, unless such storage tank is designed to withstand the additional stress to which it may be subjected or unless the vent pipe for such tank is of sufficient size to relieve the tank of any undo pressure in excess of five psi. The delivery truck operator shall remain at the fill point during the entire operation.

(9) Fuel oil equal to the maximum capacity of the storage tank may be delivered without such a permit being in effect whenever an oil burner installation is first made, provided that an application has been made in accordance with Section 1.12.8.2.

(10) Connection. Cross connection of oil supply and return lines to two or more supply tanks to the same burner shall be acceptable and shall be made by a pipe no smaller than ½ inch iron pipe or ½ inch O.D. tubing.

(11) Two supply tanks may be provided with a single fill and a single vent provided:

(a) The fill and vent pipes are not connected to the same tank;

(b) The crossover pipe is a minimum two inch diameter with swing joints and a ground joint union;

(c) The vent to the outside is a minimum two inch diameter.

(12) Tanks shall be mounted on a continuous concrete slab extending eight inches beyond the perimeter of the tank or tanks.

Add the following Section:

11.5.1.10.5.1 Permit. Permits, where required, shall comply with Section 1.12.

Add the following Section:

11.5.1.10.6 Unenclosed Tanks: Installation Inside Buildings. When tanks are installed inside garages or other areas subject to vehicular impact, physical barriers shall be provided. The physical barrier shall consist of substantial pipes, or similar barriers.

Add the following Sections:

11.5.1.10.7 Tanks: Installations Outside Buildings.

(1) Tanks installed outside of buildings shall be mounted on a continuous concrete slab at least four inches in thickness and extending eight inches beyond the perimeter of the tank or tanks.

(2) Tanks installed outside of buildings shall be securely supported by rigid noncombustible supports to prevent settling, sliding or lifting.

Add the following Sections:

11.5.1.10.8 Fill and Vent Piping.

(1) Vent pipes shall terminate outside of buildings at a point not less than two feet (0.6m) measured vertically or horizontally from any building opening.

(2) Outer ends of vent pipes shall terminate in a weatherproof vent cap or fitting or be provided with a weatherproof hood. All vent caps shall have a minimum free open area equal to the cross sectional area of the vent pipe and shall not employ screens finer than four mesh. Vent pipes shall terminate at least three feet from grade to avoid being obstructed with snow and ice. Vent pipes from tanks containing heaters shall be extended to a location where oil vapors discharging from the vent will be readily diffused. If the static head with a vent pipe filled with oil exceeds ten psi (70 kPa), the tank shall be designed to withstand the maximum static head which will be imposed.

(3) A fixed sash window shall not be considered an opening for the purpose of this Section.

Add the following Section:

11.5.1.10.9 Oil Gauging. All storage tanks in which a constant level of oil is not maintained by an automatic pump shall be equipped with a method of determining oil level. On cross connected tanks provided with a single fill and single vent, the gauge shall be installed on the tank vented to the outside.

Add the following Sections:

11.5.1.10.10 Oil Burners, Light Fuel Oil Type.

11.5.1.10.10.1 Oil Supply and Return Lines.

(1) All threaded joints and connections shall be made tight with suitable lubricant or pipe compound. Teflon tape shall not be used. Unions requiring gaskets or packings, right or left couplings, and sweat fittings employing solder having a melting point of less than 500°F (260°C) shall not be used in oil lines. Compression type fittings shall not be used.
Exception: Mechanical connections on tubing of the flare type or gaugeable, two ferrule, swage type fittings are acceptable.

(2) Oil supply lines shall be rigidly secured in place and protected from injury and shall be protected against corrosion. All new oil supply lines in direct contact with concrete or earth shall be enclosed with a continuous nonmetallic sleeve that extends out of the concrete or earth a minimum of four inches on each end. Perimeter lines may be placed in an outer protective covering, in addition to the continuous non-metallic sleeve, when subject to physical damage.

(3) A person holding a certificate of competency as an oil burner technician may connect or disconnect for the purpose of repair or replacement, any device or control required by this *Code* to be part of an oil burner installation, or being an integral part of the oil burning equipment, at the connection on such device, control or part to be repaired or replaced, notwithstanding any contrary provision of M.G.L. c. 141.

(4) Any person licensed as an electrician under M.G.L. c. 141 may do any electrical work in connection with the alteration, repair or installation of oil burning equipment without being certified as an oil burner technician.

(5) On existing installations, whenever a burner, boiler, furnace or tank is replaced, the oil supply line shall either be replaced or enclosed with a continuous sleeve as for new installations or a listed oil safety

valve shall be installed at the tank end of the oil supply line in accordance with the manufacturer's instructions.

(6) An oil safety valve and continuous nonmetallic sleeve is not required when:

(a) The oil supply and return lines are not in direct contact with concrete, earth or any floor surface.

(b) When the burner is located above the oil supply tank and the entire oil supply line is connected to, and above the top of the tank.

(7) Every owner of a residential property defined as a one to four dwelling unit used for living or sleeping (M.G.L. c. 148 § 38J) with oil supply and return lines not enclosed with a continuous non-metallic sleeve or equipped with a listed oil safety valve, shall either replace the line and enclose it with a continuous sleeve as for new installations or shall have a listed oil safety valve installed at the tank end of the supply line in accordance with the manufacturer's instructions.

(8) Nothing in this *Code* shall prohibit overhead installation of oil supply and return lines or cross connection of oil supply lines from multiple tanks.

(9) Oil supply lines and return lines to tanks exposed to freezing temperatures shall be connected to the top of the tank. This shall not apply to gravity feed oil burners using #1 fuel oil, range oil or kerosene.

(10) Oil supply lines shall be properly reamed and joints and connections shall be made oil tight.

Add the following Section:

11.5.1.10.10.2 Oil Pumps and Valves.

(1) Only readily accessible hand operated, fusible, spring loaded valves of an approved automatic type shall be installed in the oil supply line, one near each burner and one close to each supply tank so as to automatically stop the flow of oil in case of fire. Manual opening and ball spring check valves shall not be permitted.

Add the following Section:

11.5.1.10.10.3 Oil Burner Controls.

(1) Each fully automatic oil burner having a firing rate of no more than 20 gallons per hour shall be equipped with a type of approved primary safety control which shall shut off the oil supply to the burner within 15 seconds if ignition is not established or in the event of flame failure after combustion has been established. Once combustion is established and in the event of flame failure, the oil supply shall be shut off to the burner within 3 seconds nominal unless the ignition is re-energized in not less than 0.8 seconds after flame extinguishment occurs. The installation of intermittent (formerly called constant) ignition primary safety controls shall not be permitted.

(2) Each automatically fired hot water heating boiler with heat input greater than 500,000 Btu per hour shall have a listed automatic low water fuel cutoff which has been designed for hot water service, so located as to automatically cut off the fuel supply when the surface of the water falls to the lowest safe permissible water level established by the boiler manufacturer.

Add the following Section:

11.5.1.10.10.4 Certificate and License Requirements for Repair or Replacement of Oil Burner Equipment.

In accordance with M.G.L. c.148, §10D, a person holding a certificate as an oil burner technician may connect or disconnect for the purpose of repair or replacement, any device or control required by rules and regulations of the board to be a part of an oil burner installation, or being an integral part of the oil burning equipment, at the connection on such device, control or part to be repaired or replaced, notwithstanding any contrary provision of M.G.L. c. 141. Any person licensed as an electrician under said M.G.L. c. 141 may do any electrical work in connection with the alteration, repair or installation of oil burning equipment without being certified as an oil burner technician.

(1) Oil burners electrically controlled, driven and/or operated shall be supplied from a separate branch circuit located at the service disconnect panel, or at branch circuit subpanel. This circuit shall be clearly marked for the equipment it controls.

(2) All protective, control and emergency devices shall be series connected from the electrical distribution panel, through the emergency switch, through the thermal switch, to the service switch in the ungrounded line conductors. The burner controls shall be installed in the ungrounded supply conductors of the circuit and shall not exceed 150 volts to ground.

(3) A control (service switch) to start and stop a light fuel oil burner shall be installed at a location where the operator can view the fire. The switch shall be located at a maximum of three feet from the burner.

(4) An electrical thermal switch fused to break the ungrounded conductor in the main circuit at 165°F, shall be installed in the main power line within six feet over the top of the burner boiler or burner furnace.

(5) If the ceiling above the burner boiler or burner furnace exceeds 12 feet in height, an additional thermal switch shall be installed at a height of 10 feet and connected in series with the lower switch.

(6) Electrical equipment shall not obstruct clear access to clean out and service panels.

Add the following Section:

11.5.1.10.10.5 Certificates. Certificates, where required, shall comply with Section 1.12.8.51.

Delete the following Sections:

11.5.1.11 through 11.5.1.11.2

Replace with the following Section:
11.5.2.1 The use of unvented kerosene burners and oil stoves is prohibited by M.G.L. c. 148 § 25B.
Delete the following Section:
11.5.2.2

Delete the following Section:
11.5.2.3

Delete the following Section:
11.5.3.1

Delete the following Section:
11.5.4

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

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

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 one year without degradation beyond that allowed in 11.7.5.1.2. [25:8.3.4.2.1]

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.

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 modifying, adding, deleting or replacing the following Sections in Chapter 12 as provided below:

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 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 Section:
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.

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 Section:
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 Section:
12.6.3.6 Documentation of Furniture.
12.6.3.6.1 The building manager shall maintain documentation of furniture within the building.
12.6.3.6.2 The documentation shall be made available to the AHJ upon request.
12.6.3.6.3 The documentation shall include:
- **(1)** The quantity and type of each article of furniture.
- **(2)** Certification that the furniture items meet the performance requirements.
- **(3)** The nationally recognized testing laboratory that conducted the tests.
- **(4)** Description of the upholstery cover fabric for each type of furniture within the inventory area, if the furniture is upholstered. The description of the upholstery cover fabric shall be provided by the fabric company or the chair manufacturer, and shall include fiber content, fabric type, fabric company name, and either a photo of the fabric for identification, or an actual fabric swatch, clearly labeled, at minimum size 2 in. x 2 in.
- **(5)** Fire retardant treatment maintenance and compliance documentation, if applicable.

Delete the following Sections:
12.7.1 through 12.7.4.4

Replace with the following Section:
12.7.5 Penetrations. The provisions of 12.7.5 shall govern the materials and methods of construction used to protect through-penetrations and membrane penetrations in fire walls, fire barrier walls, and fire resistance rated horizontal assemblies. The provisions of 12.7.5 shall not apply to approved existing materials and methods of construction used to protect existing through-penetrations and existing membrane penetrations in fire walls, fire barrier walls, or fire resistance rated horizontal assemblies, in accordance with the building code.

Replace with the following Section:
12.8.1* General. Where required elsewhere in this *Code*, smoke partitions shall be maintained to limit the transfer of smoke.

Delete the following Section:
12.8.2

Delete the following Sections:
12.9 through 12.9.7.5

Chapter 13 Fire Protection Systems.

Modify this Chapter by adding, deleting or replacing the following Sections in Chapter 13 as provided:
Replace with the following Section:
13.1.1 For alarms and systems regulated by this *Code*, the AHJ shall have the authority to require that construction documents for all fire protection systems be submitted for review and approval and a permit be issued prior to the installation, rehabilitation, or modification. *(For additional information concerning construction documents, see Section 1.14.)* Further, the AHJ shall have the authority to require that full acceptance tests of the systems be performed in the AHJ's presence prior to final system certification.

Replace the following Section:
13.1.8 No person shall shut off, disconnect, obstruct, remove, and/or modify a fire protection system or carbon monoxide protection system without first procuring a written permit in accordance with Section 1.12 from the AHJ. The AHJ shall be notified when any fire protection system is out of service and on restoration of service.

Delete the following Sections:
13.2.1 through 13.2.2.5.1

Replace with the following Section:
13.3.1.1* Automatic sprinklers shall be installed and maintained in full operating condition in accordance with this *Code* or in the codes or standards referenced in Chapter 2.

Delete the following Sections:
13.3.1.4 through 13.3.1.6

Delete the following Sections:
13.3.2.1 through 13.3.2.7.5.3

Replace with the following Section:
13.3.2.8.1 See M.G.L. c. 148 § 26G-1/2.

Delete the following Sections:
13.3.2.8.2 through 13.3.2.22.1.2

Replace with the following Section:
13.3.2.22.1.3 High-Rise Buildings. See M.G.L. c. 148 § 26A and 26A-1/2.

Delete the following Sections:
13.3.2.22.1.4 through 13.3.2.23.2

Delete the following Sections:
13.3.2.23.4 through 13.3.2.23.4.2.3

Delete and replace the following Section:
13.3.2.24.1 See M.G.L. c. 148 § 26.

Delete the following Sections:
13.3.2.25 through 13.3.2.29

Delete the following Sections:
13.4.3 through 13.4.3.2

Add the following Section:
13.6.1.5 Certificates. Certificates, where required, shall comply with Section 1.13.

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.
(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 including weekly testing.
(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,

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

(a) 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;

(b) 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;

(c) 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.

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

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

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. 148, § 26 E: (a) shall be permitted to have either battery or, primary power pursuant to M.G.L. c.148, § 26E(c) 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
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**.**

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 Smoke Alarms and Detectors
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.

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 MGL c. 148, § 26 E and § 26 F

(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, § 26 E: (a) shall be permitted to have either battery or, primary power pursuant to M.G.L. c.148, § 26E(c) 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 (c) Common halls and basements shall have their power supply by primary power pursuant to M.G.L. c.148, § 26E(c)
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.

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.

13.7.6.1.3 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.

~~**13.7.6.1.4** All common areas shall be inspected annually.~~

~~**13.7.6.1.5** All carbon monoxide alarm batteries shall be replaced, in accordance with its listing or on an annual basis by the owner, landlord or superintendent.~~

~~**13.7.6.1.6** Low voltage system batteries for carbon monoxide detectors shall be maintained in accordance with applicable Sections of NFPA 720 on an annual basis by the owner, landlord or superintendent.~~

~~**13.7.6.1.7** Unless otherwise recommended by the manufacturer's published instructions, single- and multiple-station carbon monoxide alarms installed in one and two family dwellings shall be made operable when they fail to respond to the manufacturer's operability tests. Alarms shall be replaced when either the end-of-life signal is activated or the manufacturer's replacement date is reached.~~

~~**13.7.6.1.8** Combination smoke/carbon monoxide alarms shall be replaced when the end-of-life signal activates or 10 years from the date of manufacture, which ever comes first.~~

~~**13.7.6.1.9** Every owner, superintendent, or landlord having control of any dwelling unit inhabited by a person who is hearing impaired, shall comply with any applicable carbon monoxide provisions 521 CMR: *Architectural Access Board*.~~

~~**13.7.6.1.10** The 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 or 13.7.6.5.1.1 Voice and Annunciators, 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 13.7.6.5.1.1 shall include information within each room indicating evacuation procedures in the event of an alarm condition.~~

~~**13.7.6.1.11** No person shall shut off, disconnect, obstruct, remove, and/or modify a fire protection system or carbon monoxide protection system without first procuring a written permit in accordance with Section 1.12 from the AHJ.~~

~~**13.7.6.2 Permits.** Permits, where required, shall comply with Section 1.12.~~

~~**13.7.6.2.1** 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.~~

~~**13.7.6.2.1.1** For buildings or structures constructed, renovated or subject to a change in use for which building permits have been issued on or after March 31, 2006, shall comply with any applicable stricter carbon monoxide alarm requirements of the building code.~~

~~**13.7.6.3 Massachusetts General Laws.**~~

~~**13.7.6.3.1** The provisions of M.G.L. c. 148, § 26F½ shall apply to every dwelling, building or structure built including those owned and operated by the Commonwealth, occupied in whole or in part for residential purposes, that contains fossil fuel burning equipment or incorporates enclosed parking within its structure.~~

~~**13.7.6.3.2** Carbon monoxide systems shall not be disconnected or otherwise rendered unserviceable without first notifying the AHJ in accordance with M.G.L. c. 148, § 27A.~~

~~**13.7.6.3.3** In accordance with M.G.L. c.148 § 26F$^{1/2}$, for residential buildings/structures carbon monoxide alarm and detection protection shall comply with Section 13.7.6 and *Table 13.7D* or when technical options are used, in accordance with Section 13.7.7.~~

~~**13.7.6.3.4** See M.G.L. c.148 § 27A for out of service fire protection system or carbon monoxide protection systems.~~

~~**13.7.6.3.5** All detectors and alarms and associated equipment shall be installed and maintained in accordance with the NFPA 70, and in accordance with M.G.L. c. 143, § 3L and M.G.L. c. 141, § 1A, if applicable.~~

13.7.6.4 Terms. The terms used in this Chapter 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. 28A or its successor statues 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, 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 a 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.

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 detectors shall be installed as provided in Section *13.7.6* and *Table 13.7D* in the following manner:

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

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

(3) One carbon monoxide detector 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 and Annunciators.

13.7.6.5.1.1 Where smoke and carbon monoxide technologies are required to be installed such protection may be accomplished by using 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.

Table 13.7D
Carbon Monoxide Detection Requirements for Dwellings

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. 148, § 26 F1/2: (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, § 26F 1/2 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 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 for areas or rooms containing centralized fossil fuel burning equipment, shall employ listed carbon monoxide alarm protection meeting 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 installation shall be in accordance with the manufacturer's instructions. 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.

(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. A 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 back up 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 detector. 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 detector 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 NFPA 720.

(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 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 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)

(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 contain 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.

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 the following section~~
~~13.7.8 Inspection, Testing, and Maintenance.~~
~~13.7.8.1~~ ~~The inspection, testing, and maintenance for fire alarm and fire detection systems shall be in accordance with Chapter 10 of *NFPA 72*.~~
~~13.7.8.2~~ ~~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 detectors in one and two-family dwellings. Smoke detectors in patient sleeping rooms in occupancies in Group I-2.*~~

~~13.7.8.3~~ ~~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.~~
~~13.7.8.4~~ ~~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.~~
~~13.7.8.5~~ ~~A copy of the final report required by the building code shall be filed with the fire code official and the Building Official and an identical copy shall be maintained in an approved location at the building.~~
~~13.7.9~~ ~~Fire department inlet connections shall be fitted with check valves, ball drip valves, and plugs with chains or frangible caps.~~
~~13.7.10~~ ~~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 background, 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. .~~
~~13.7.11 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.

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. Devices	X	Sale and Transfer	Inspect for expiration date of smoke alarm	10.4 13.7.1
4. Common Area	X	Annually Sale and Transfer	Inspection compliance	10.4 13.7.1

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.
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.
13.10.8.1 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 Maintenance.
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.

Chapter 14 Means of Egress.
Modify this Chapter by adding, deleting or replacing the following Sections in Chapter 14 as provided below:

Replace with the following Section:
14.1 Application. Means of egress in existing buildings shall comply with this *Code* and the building code.

Replace with the following Section:
14.2 Exit Access Corridors. Corridors used as exit access shall be separated from other parts of the building in accordance with the building code.

Replace with the following Section:
14.3.1 Where the building code requires an exit to be separated from other parts of the building, the separating construction shall meet the requirements of the building code.

Delete the following Sub-sections:
14.3.1(1) through (12)

Replace with the following Section:
14.4.3 Impediments to Egress. Any device or alarm installed to restrict the improper use of a means of egress shall be designed and installed so that it cannot, even in case of failure, impede or prevent emergency use of such means of egress, unless otherwise provided in the building code.

Add the following Section:
14.4.4 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.

Replace the following Section:
14.5.1.1* Swinging-Type Door Assembly Requirement. Any door assembly in a means of egress shall be of the side-hinged or pivoted-swinging type, and shall be installed to be capable of swinging from any position to the full required width of the opening in which it is installed.

Delete Sub-sections:
14.5.1.1(1) through (7)

Replace with the following Section:
14.5.1.2 Door Leaf Swing Direction. Door leaves required to be of the side-hinged or pivoted-swinging type shall swing in the direction of egress travel as required by the building code.

Replace with the following Section:
14.5.1.3.1* During its swing, any door leaf in a means of egress shall leave not less than one-half of the required width of an aisle, a corridor, a passageway, or a landing unobstructed and shall project not more than 7 in. (180 mm) into the required width of an aisle, a corridor, a passageway, or a landing, when fully open.

Delete the following Sub-sections:
14.5.1.3.1* (1) and **(2)**

Delete the following Section:
14.5.1.3.2

Replace with the following Section:
14.5.1.5.1 The forces required to fully open any door leaf manually in a means of egress shall be in accordance with the building code.

Delete the following Sub-sections:
14.5.1.5.1(1) through (4)

Delete the following Section:
14.5.1.5.2

Delete the following Section:
14.5.2.2*

Delete the following Section:
14.5.2.4

Replace the following Sub-section:
14.5.2.5.1 (1) This alternative is permitted by the building code for the specific occupancy.

Delete the following Section:
14.5.2.5.2

Replace with the following Section:
14.5.2.7 Where permitted by the building code key operation shall be permitted, provided that the key cannot be removed when the door leaf is locked from the side from which egress is to be made.

Replace with the following Section:
14.5.2.8* Every door assembly in a stair enclosure shall meet the requirements of the building code for re-entry.

Delete the following Section:
14.5.2.8.1

Delete the following Section:
14.5.2.8.2

Replace with the following Section:
14.5.2.8.3 Signage on the stair door leaves as provided in the building code shall be required as follows;

Delete the following Sections:
14.5.2.10.1-14.5.2.10.6

Replace the following Sub-section:
14.5.2.11 (2) Flush bolts shall not be used.

Replace with the following Section:
14.5.2.12* Devices shall not be installed in connection with any door assembly on which panic hardware or fire exit hardware is required where such devices prevent, or are intended to prevent, the free use of the leaf for purposes of egress.

Replace with the following Section:
14.5.3.1.1 Approved, listed, delayed-egress locking systems shall be permitted to be installed on door assemblies in accordance with the building code, protected throughout by an approved, supervised automatic fire detection system in accordance with Section 13.7 or an approved, supervised automatic sprinkler system in accordance with Section 13.3.

Delete the following Sub-section:
14.5.3.1.1(1)

Replace the following Sub-section:
14.5.3.1.1(3) * An irreversible process shall release the lock within 15 seconds, or 30 seconds where approved by the AHJ, upon application of a force to the release device as required by the building code.

Replace the following Sub-section:
14.5.3.1.1 (5) The egress side of doors equipped with delayed-egress locks shall be provided with emergency lighting in accordance with the building code.

PUSH UNTIL ALARM SOUNDS DOOR

CAN BE OPENED IN 15 SECONDS
[*101*:7.2.1.6.1.1]

Delete the following Section:
14.5.3.1.2

Replace the first sentence in the following Section:
14.5.3.2* **Access-Controlled Egress Door Assemblies.** Where permitted by the building code, door assemblies in the means of egress shall be permitted to be equipped with an approved entrance and egress access control system, provided that all of the following criteria are met:

Delete the following Section:
14.5.3.3

Delete the following Section:
14.5.3.4.3

Replace with the following Section:
14.5.4.2 In any building doors shall be permitted to be automatic-closing, provided that all of the following criteria are met:

Delete the following Section:
14.5.4.3

Replace with the following Section:
14.6.1.1 All inside stairs serving as an exit or exit component shall be enclosed in accordance with the building code.

Delete the following Section:
14.6.1.2

Delete the following Section:
14.6.1.3

Delete the following Sections:
14.6.2*through 14.6.2.3

Delete the following Section:
14.7.1*

Delete the following Section:
14.7.2

Replace with the following Section:
14.7.4.1 The width of an exit passageway shall be sized to accommodate the aggregate required capacity of all exits that discharge through it as required by the building code.

Delete the following Section:
14.7.4.2

Delete the following Section:
14.8.1.2*

Replace the following title:
14.8.1.3 Occupant Load.

Delete the following Section:
14.8.1.3.1

Replace with the following Section:
14.8.1.3.2 The AHJ shall be permitted to require an approved aisle, seating, or fixed equipment diagram to substantiate any occupant load and shall be permitted to require that such a diagram be posted in an approved location.

Delete the following Sections:
14.8.1.4 through 14.8.1.6

Replace with the following Section:
14.8.2.1 The width of means of egress shall be in accordance with the building code.

Delete the following Section:
14.8.2.2

Delete the following Section:
14.8.2.3

Delete the following Sections:
14.8.3.1 through 14.8.3.3

Replace with the following Section:
14.8.3.4.1 The width of any means of egress shall be in accordance with the building code and not less than 36 in. (915 mm).

Delete the following Section:
14.8.3.4.1.1*

Delete the following Section:
14.8.3.4.1.3

Replace with the following Section:
14.8.3.4.3 Where more than one exit access leads to an exit, each shall have a width adequate for the number of persons the exit accommodates.

Delete the following Section:
14.9.1.1

Replace the first sentence in the following Section:
14.9.1.2 The number of means of egress from any story or portion thereof, shall be as follows;

Add the following sub-Section:
14.9.1.2(3) Or as otherwise allowed by the building code.

Replace with the following Section:
14.9.1.3 Accessible means of egress shall be in accordance 521 CMR.

Delete the following Section
14.9.1.4 through 14.9.1.6.3

Replace with the following Section:
14.10.1.1.1* Where exits are not immediately accessible from an open floor area, continuous passageways, aisles, or corridors leading directly to every exit shall be maintained.

Replace with the following Section:
14.10.1.1.2 Exit access corridors shall provide access to not less than two approved exits, unless otherwise provided in the building code.

Delete the following Section:
14.10.1.1.3

Delete the following Section:
14.10.1.1.4

Replace with the following Section:
14.10.1.2 Corridors shall provide exit access without passing through any intervening rooms other than corridors, lobbies, and other spaces permitted to be open to the corridor, unless otherwise provided in the building code.

Replace the following Sub-section:
14.10.1.2.1(2) Doors to such rooms shall comply with the building code.

Delete the following Sub-section:
14.10.1.2.1(3)

Replace with the following Section:
14.10.1.3 Remoteness shall be provided in accordance with the building code.

Delete the following Sections:
14.10.1.3.1 through 14.10.1.3.7

Delete the following Sections:
14.10.1.4 through 14.10.1.4.2*

Replace with the following Section:
14.10.1.5* Exit access shall be arranged so that there are no dead ends in corridors, unless permitted by, and limited to the lengths specified in the building code.

Delete the following Section:
14.10.1.6

Replace with the following Section:
14.10.2 Impediments to Egress.

Replace with the following Section:
14.10.2.1* Access to an exit shall not be through kitchens, storerooms other than as provided in the building code, restrooms, workrooms, closets, bedrooms, or similar spaces, or other rooms or spaces subject to locking, unless passage through such rooms or spaces is permitted by the building code.

Replace with the following Section:
14.10.2.2.1 Hangings or draperies shall not be placed over exit doors or located so that they conceal or obscure any exit.

Delete the following Section:
14.10.2.2.2

Delete the following Sections:
14.10.3 through 14.10.3.4

Delete the following Sections:
14.10.4 through 14.10.4.9

Replace with the following Section:
14.11.1* Exit Termination. Exits shall terminate directly, at a public way.

Delete the following Sections:

14.11.1.1through14.11.1.4

Delete the following Sub-sections:
14.11.2(1) and (2)

Delete the following Sub-sections:
14.11.2(4) through (6)

Delete the following Section:
14.11.3.1 through 14.11.3.3

Replace with the following Section:
14.11.4 Components of Exit Discharge. Doors, stairs, ramps, corridors, exit passageways, bridges, balconies, escalators, moving walks, and other components of an exit discharge shall comply with the building code.

Delete the following Section:
14.11.6

Replace with the following Section:
14.12.1.1* Illumination of means of egress shall be provided in accordance with the building code. For the purposes of this requirement, exit access shall include only designated stairs, aisles, corridors, ramps, escalators, and passageways leading to an exit. For the purposes of this requirement, exit discharge shall include only designated stairs, aisles, corridors, ramps, escalators, walkways, and exit passageways leading to a public way.

Replace with the following Section:
14.12.1.2 Illumination of means of egress shall be continuous during the time that the conditions of occupancy require that the means of egress be available for use as required by the building code.

Replace with the following Section:
14.12.1.2.1 Artificial lighting shall be employed at such locations and for such periods of time as are necessary to maintain the illumination to the minimum criteria values as required by the building code.

Delete the following Section:
14.12.1.2.2

Replace with the following Section:
14.12.1.2.3* Energy-saving sensors, switches, timers, or controllers shall be approved and shall not compromise the continuity of illumination of the means of egress required by the building code.

Delete the following Section:
14.12.1.3*

Delete the following Section:
14.12.1.4*

Delete the following Section:
14.12.1.5

Replace with the following Section:
14.12.2.1* Illumination of means of egress shall be from a source considered reliable by the building code.

Replace with the following Section:
14.12.2.2 Battery-operated electric lights and other types of portable lamps or lanterns shall not be used for primary illumination of means of egress. Battery-operated electric lights shall be permitted to be used as an emergency source to the extent permitted under the building code.

Replace with the following Section:
14.13.1.1* Emergency lighting for means of egress shall be in accordance with the building code.

Delete the following Sub-sections:
14.13.1.1* (1) through (6)

Replace with the following Section:
14.13.1.3 Where maintenance of emergency illumination depends on changing from one energy source to another, a delay of not more than 10 seconds shall be permitted.

Replace with the following Section:
14.13.2.1 Required emergency lighting systems shall be tested in accordance with the manufacturer's instructions.

Replace with the following Section:
14.13.2.1.1 Written records of tests shall be kept by the owner for inspection by the AHJ.

Delete the following Section:
14.13.2.1.2

Delete the following Section:
14.13.2.1.3

Replace with the following Section:
14.14.1.1 Where Required. Means of egress shall be marked in accordance with the building code.

Replace with the following Section:
14.14.1.3 Exit Stair Door Tactile Signage. Tactile signage shall be provided to meet the criteria in accordance with the building code.

Delete the following Sub-sections:
14.14.1.3 (1) through (3)

Delete the following Section:
14.14.1.4

Replace with the following Section:
14.14.1.5.2* Sign placement shall be in accordance with the building code.

Delete the following Section:
14.14.1.6*

Delete the following Section:
14.14.1.7*

Delete the following Section:
14.14.1.9
Delete the following Section:
14.14.3*

Delete the following Section:
14.14.4*

Replace with the following Section:
14.14.5.1* General. Every sign required by the building code shall be suitably illuminated by a reliable light source. Externally and internally illuminated signs shall be legible in both the normal and emergency lighting mode.

Delete the following Section:
14.14.5.2* through 14.14.5.2.2*

Delete the following Section:
14.14.6.1* through 14.14.6.1.2

Delete the following Section:
14.14.6.2* through 14.14.6.3*

Delete the following Section:
14.14.7 through 14.14.7.2*

Delete the following Section:
14.14.8.1 through 14.14.8.2

Replace the following title:
14.15 Emergency Escape and Rescue.

Replace with the following Section:

14.15.1 Emergency escape and rescue openings shall comply with the building code.

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, a 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 below:

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.

Add the following Section:

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*.
(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 2 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 below:

Add the following Section:
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.

Add the following Section:
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.

Add the following Section:
18.1.1.6 Nothing is this Section shall reduce the requirements established by cities or towns under MGL 40A and planning and zoning by-laws.

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 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 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:
(5) Agricultural buildings having an area not exceeding 400 ft2
(6) Other detached buildings having an area not exceeding 400 ft2

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 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).

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’ but not less than 10’ 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 below:

Add the following title:
19.3 Special Hazards, Rubbish.

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 and replacing the following Sections in Chapter 20 as provided below:

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 Section:
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 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

Delete the following Section:
20.1.5.5.4.1

Delete the following Section:
20.1.5.5.4.2

Delete the following Section:
20.1.5.5.4.3

Replace the following Section:
20.1.5.5.4.4 Exhibit booth construction materials shall be limited to the following:

Delete the following Sub-sections:
20.1.5.5.4.4 (1) through (3)
20.1.5.5.4.4 (5) through (8)

Delete the following Section:
20.1.5.5.4.7

Delete the following Section:
20.1.5.5.4.7.1

Delete the following Section:
20.1.5.5.4.7.2

Delete the following Section:
20.1.5.5.4.7.3

Replace the following Section:
20.1.5.6 Crowd Managers.
20.1.5.6.1 A nightclub, dance hall, discotheque or bar with an occupant load of 100 or more, shall be provided with a minimum of one trained crowd manager. Where the occupant load exceeds 250, additional trained crowd managers or crowd manager supervisors shall be provided at a ratio of 1 crowd manager for every 250 occupants.

Add the following Section:
20.1.5.6.1.1 A nightclub, dance hall, discotheque or bar shall be defined as:
(1) Any facility classified as an A-2 or A-3 use group under the building code, which is principally designed or used as a nightclub, dance hall, discotheque or bar; or
(2) Any facility that features entertainment by live band or recorded music generating above normal sound levels and has a specific area designated for dancing.

Add the following Section:
20.1.5.6.1.2 A crowd manager is not required for:
- **(1)** A temporary structure erected at the same location for no more than ten days in any calendar year; or
- **(2)** A facility that features fixed seating, such as a theatre, auditorium, concert hall or similar place of assembly; or
- **(3)** A facility used for organized private function where:
  - **(a)** Each guest has a seat and a table for dining purposes; and
  - **(b)** Attendance for each event is limited by pre-arrangement between the facility operator and the private event organizers; and
  - **(c)** The legal capacity of the facility provides not less than 15 square feet (net) per occupant.

Replace with the following Section:

20.1.5.6.2 The crowd manager shall receive training, as required by the State Fire Marshal. The State Fire Marshal shall develop a reasonable method to confirm, on a three-year basis, that a crowd manger has completed the training in regards to their responsibility..

Add the following Section:
20.1.5.6.3 A crowd manager shall be at least 21 years of age, shall be the owner or operator of the business or under the direct control and supervision of said owner or operator and shall be responsible for all of the following:

(1) Maintaining clear paths of egress, assuring that the facility does not exceed its occupant load limit, initiating a fire alarm if necessary, directing occupants to exits;
(2) Assuring general fire and life safety awareness of employees and occupants, including assuring that exit announcements are made in accordance with 20.1.5.8.3;
(3) Accurately completing the safety plan checklist required by 20.1.5.6.4.

Add the following Section:
20.1.5.6.4 Fire and Building Safety Checklist.

(1) The crowd manager shall be responsible for the completion of the Fire & Building Safety Checklist, as prescribed by the State Fire Marshal, on each day of operation prior to opening the facility to patrons.
(2) This checklist shall include, but not be limited to, the routine safety check of existing fire protection systems, fire extinguishers, signage, interior finish, exits, unobstructed egress, crowd control procedures and building occupancy limits.
(3) The original completed checklists shall be kept on the premises for at least one year and shall be subject to inspection by the AHJ.

Delete the following Section:
20.1.5.7*

Delete the following Section:
20.1.5.8.2

Delete the following Section:
20.1.5.8.3(4)

Add the following Sub-section:
20.1.5.8.3*(5) Nightclubs, dance halls, discotheques or bars.

Delete the following Sections:
20.1.5.10 through 20.1.5.10.1.2

Delete the following Sections:
20.1.5.10.2 through 20.1.5.10.2.3

Delete the following Section:
20.1.5.11

Delete the following Sections:
20.1.5.12 through 20.1.5.12.2

Replace with the following Section:
20.2.1 Application. New and existing educational occupancies shall comply with Section 20.2.

Delete the following Sections:
20.2.2 through 20.2.2.5

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

Delete the following Sections:
20.2.3.2 through 20.2.3.3.4

Replace with the following Section:
20.2.4.2.1* Emergency egress drills shall be conducted in accordance with the applicable provisions of 20.2.4.2.

Add the following Section:
20.2.4.2.1.1 The responsible school official in charge of the school or the school system, shall formulate a plan for the protection and evacuation of all persons in the event of fire, and shall include alternate means of

egress for all persons involved. Such plan shall be presented to and approved by the Head of the Fire Department.

Add the following Section:
20.2.4.2.1.2 The responsible school official in charge of the school or the school system shall see that each class instructor or supervisor shall receive proper instructions on the fire drill procedures specified for the room or area in which that person carries out their duties before they assume such duties.

Add the following Section:
20.2.4.2.1.3 Every student in all schools shall be advised of the fire drill procedure or shall take part in a fire drill within three days after entering such school.

Add the following Section:
20.2.4.2.1.4 The Head of the Fire Department, or person designated by him, shall visit each school at least four times each year for the purpose of conducting fire drills and questioning the teachers and supervisors. These drills shall be conducted without advance warning to the school personnel other than the person in charge of the school at the time.

Add the following Section:
20.2.4.2.1.5 Records. A record of all fire exit drills shall be kept on the premises and persons in charge of such occupancies shall file written reports at least twice a year with the Head of the Fire Department giving the following information:

(1) Time of drill;
(2) Date of drill;
(3) Weather conditions when occupants were evacuated;
(4) Number of occupants evacuated;
(5) Total time for evacuation;
(6) Other information relevant to the drill.

Add the following Section:
20.2.4.2.1.6 Evacuation. Fire exit drills shall include the complete evacuation of all persons from the building.

Add the following Section:
20.2.4.2.1.7 A drill of the multi-hazard evacuation plan, required by the provisions of St. 2000, c. 159, § 363, may be substituted for one of the fire drills required by 20.2.4.2.3.

Delete the following Section:
20.2.4.2.2

Delete the following Section:
20.2.4.2.3

Delete the following Section:
20.2.4.3.2

Delete the following Section:
20.2.4.3.3

Replace with the following Section:
20.2.4.4.2 Upholstered and molded plastic seating furniture shall be tested in accordance with the provisions of 12.6.3.

Replace with the following Section:
20.2.4.4.3 Paper materials displayed in educational use occupancies shall be permitted on walls only in accordance with the following:

(1) In classrooms, paper materials displayed shall not exceed 20% of the total wall area.
(2) Paper materials displayed shall be attached directly to the walls and shall not be permitted to cover an egress door or be placed within five feet of an egress door, unless approved by the AHJ. When determining wall areas, the door and window openings shall be included unless:
  (a) Paper materials are displayed in fully enclosed viewing cabinets with glass or polycarbonate viewing panels or covered with glass or polycarbonate sheet material in accordance with the building code;
  (b) Flame retardant paper material is used for display.
(3) Paper material displays may cover up to 50% of the total wall area in classrooms that are fully sprinklered in accordance with Chapter 13.

Add the following Section:
20.2.4.4.4 Exit Access Passageways, Assembly Areas, and Corridors. Paper materials shall be permitted on walls only in accordance with the following:

(1) Paper materials displayed shall not exceed 10% of the surface area of any wall;
(2) Such paper material shall be positioned in such manner to avoid concentration of materials to reduce flame spread in the event of a fire;
(3) In no event shall any one grouping exceed a maximum horizontal measurement of 12 feet and a maximum vertical measurement of six feet. Groups of paper material shall be allowed as long as there is space between each group equal to the horizontal width of the largest adjacent group;
(4) Paper material used for display shall be attached directly to the walls and shall not be permitted to cover an egress door or be placed within five feet of an egress door unless approved by the AHJ or unless:
  (a) Paper materials are displayed in fully enclosed viewing cabinets with glass or polycarbonate viewing panels or covered with glass or polycarbonate sheet material in accordance with the building code
  (b) Flame retardant paper material is used for display
(5) Paper material displays may cover up to 50% of the total wall area in classrooms that are fully sprinklered in accordance with Chapter 13.

Add the following Section:
20.2.4.4.5 Exits and Enclosed Exit Stairs. Displayed paper materials shall not be permitted in exits and enclosed exit stairs.

Add the following Section:
20.2.4.4.6 This Section shall not prohibit the posting of exit signage or evacuation plans in accordance with this *Code.*

Add the following Section:
20.2.4.4.7 The provisions of 20.2.4.4.3 or 20.2.4.4.4 shall not be applicable to any election materials required by law to be posted during any local, state or federal election.

Replace with the following Section:
20.2.4.5 Fuel-Fired Heaters. Unvented fuel-fired heaters, other than gas space heaters in compliance with NFPA 54, shall not be used in accordance with the following:

(1) Prohibited Installations. Unvented room heaters shall not be installed in bathrooms or bedrooms.
(2) Listing and Installation. Unvented room heaters shall be listed in accordance with ANSI Z21.11.2, *Gas-Fired Room Heaters-Volume II, Unvented Room Heaters*, and shall be installed in accordance with the manufacturer's installation instructions.

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

Replace with the following Section:
20.3.1 Application. New and existing Day-care occupancies shall comply with Section 20.2.

Delete the following Sections:
20.3.1.1 through 20.3.1.5.3

Replace with the following Section:
20.3.2.1 Fuel-Fired Heaters. Unvented fuel-fired heaters, other than gas space heaters in compliance with NFPA 54, shall not be used in accordance with the following:

(1) Prohibited Installations. Unvented room heaters shall not be installed in bathrooms or bedrooms.
(2) Listing and Installation. Unvented room heaters shall be listed in accordance with ANSI Z21.11.2, *Gas-Fired Room Heaters-Volume II, Unvented Room Heaters*, and shall be installed in accordance with the manufacturer's installation instructions.

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

Delete the following Sections:
20.3.2.4 through 20.3.2.4.6

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

Delete the following Sections:
20.3.3.2 through 20.3.3.4.4

Delete the following Sections:
20.3.4 through 20.3.4.2.3.5.5

Replace with the following Section:
20.4.1 Application. New and existing health care occupancies shall comply with Section 20.4.

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

Delete the following Sections:
20.4.3.2 through 20.4.3.5.3

Replace with the following Section:
20.5.1 Application. New and existing residential board and care occupancies shall comply with Section 20.5.

Delete the following Sections:
20.5.3 through 20.5.3.3.2

Replace with the following Section:
20.6.1 Application. New and existing ambulatory health care centers shall comply with Section 20.6.

Delete the following Section:
20.6.3

Replace with the following Section:
20.7.1 Application. New and existing detention and correctional occupancies shall comply with Section 20.7.

Replace with the following Section:
20.7.2.1.1 Detention and correctional facilities, or those portions of facilities having such occupancy, shall be provided with 24-hour staffing.

Add the following Section:
20.7.2.1.1.1 For Use Condition III, Use Condition IV, and Use Condition V. The arrangement shall be such that the staff involved starts the release of locks necessary for emergency evacuation or rescue and initiates other necessary emergency actions within 2 minutes of alarm.

Delete the following Sections:
20.7.2.1.2* through 20.7.2.1.4.2

Delete the following Section:
20.7.2.2

Replace with the following Section:
20.7.2.4.2 Newly introduced upholstered furniture within detention and correctional occupancies shall be tested in accordance with the provisions of 12.6.3.

Delete the following Section:
20.7.2.4.5

Delete the following Section:
20.7.2.5

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

Delete the following Sections:
20.7.3.2 through 20.7.3.6.2.3

Replace with the following Section:
20.8.1 Application. New and existing hotels and dormitories shall comply with Section 20.8.

Replace with the following Section:
20.8.2.6 Fuel-Fired Heaters. Unvented fuel-fired heaters, other than gas space heaters in compliance with NFPA 54, shall not be used in accordance with the following:

(1) Prohibited Installations. Unvented room heaters shall not be installed in bathrooms or bedrooms.
(2) Listing and Installation. Unvented room heaters shall be listed in accordance with ANSI Z21.11.2,

Gas-Fired Room Heaters-Volume II, Unvented Room Heaters, and shall be installed in accordance with the manufacturer's installation instructions.

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

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

Delete the following Sections:
20.8.3.2 through 20.8.3.5

Replace with the following Section:
20.9.1 Application. New and existing apartment buildings shall comply with Section 20.9.

Replace with the following Section:
20.9.2.1 Emergency Instructions for Residential Housing for the Elderly. Emergency instructions shall be provided annually by the housing complex administrator to each dwelling unit when containing 6 or more to indicate the location of alarms, egress paths, and actions to be taken, both in response to a fire in the dwelling unit and in response to the sounding of the alarm system.

Add the following Section:
20.9.2.1.1 The AHJ shall visit four times a year to:
(1) To conduct a fire drill; or
(2) Ascertain the evacuation process and procedure.

Replace with the following Section:
20.9.2.2 Fuel-Fired Heaters. Unvented fuel-fired heaters, other than gas space heaters in compliance with NFPA 54, shall not be used in accordance with the following:
(1) Prohibited Installations. Unvented room heaters shall not be installed in bathrooms or bedrooms.
(2) Listing and Installation. Unvented room heaters shall be listed in accordance with ANSI Z21.11.2, *Gas-Fired Room Heaters-Volume II, Unvented Room Heaters*, and shall be installed in accordance with the manufacturer's installation instructions.

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

Delete the following Sections:
20.9.3 through 20.9.3.5

Replace with the following Section:
20.9.4 Contents and furnishings in public areas shall comply with Section 12.6.3.

Replace with the following Section:
20.10.1 Application. New and existing lodging or rooming houses shall comply with Section 20.10.

Replace with the following Section:
20.10.2 Fuel-Fired Heaters. Unvented fuel-fired heaters, other than gas space heaters in compliance with NFPA 54, shall not be used in accordance with the following:
(1) Prohibited Installations. Unvented room heaters shall not be installed in bathrooms or bedrooms.
(2) Listing and Installation. Unvented room heaters shall be listed in accordance with ANSI Z21.11.2, *Gas-Fired Room Heaters-Volume II, Unvented Room Heaters*, and shall be installed in accordance with the manufacturer's installation instructions.

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

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

Delete the following Sections:
20.10.3.2 through 20.10.3.3.2

Replace with the following Section:
20.10.4 Contents and furnishings in public areas shall comply with Section 12.6.

Replace with the following Section:
20.11.1 Application. New and existing one- and two-family dwellings shall comply with Section 20.11.

Replace with the following Section:
20.11.2 Fuel-Fired Heaters. Unvented fuel-fired heaters, other than gas space heaters in compliance with NFPA 54, shall not be used in accordance with the following:

(1) Prohibited Installations. Unvented room heaters shall not be installed in bathrooms or bedrooms.

(2) Listing and Installation. Unvented room heaters shall be listed in accordance with ANSI Z21.11.2, *Gas-Fired Room Heaters-Volume II, Unvented Room Heaters,* and shall be installed in accordance with the manufacturer's installation instructions.

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

Delete the following Sections:
20.11.3 through 20.11.5

Replace with the following Section:
20.12.1 Application. New and existing mercantile occupancies shall comply with Section 20.12.

Delete the following Section:
20.12.2.3

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

Delete the following Sections:
20.12.3.2 through 20.12.3.3.4

Replace with the following Section:
20.13.1 Application. New and existing business occupancies shall comply with Section 20.13.

Delete the following Section:
20.13.2.3

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

Delete the following Sections:
20.13.3.2 through 20.13.3.3.4

Delete the following Sections:
20.14 through 20.14.3.3.2

Replace with the following Section:
20.15.1 Application. New and existing storage occupancies shall comply with the appropriate codes or standards referenced in Chapter 2 and Section 20.15.

Delete the following Sections:
20.15.3 through 20.15.3.3.2

Replace the following Sub-section:
20.15.4 (7) NFPA 1124, *Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles, as modified by this Code.*

Delete the following Sections:
20.15.6 through 20.15.6.2

Delete the following Sections:
20.15.8.3 through 0.15.8.3.3

Delete the following Sections:
20.16 through 20.16.1.2

Delete the following Sections:
20.17 through 20.17.3

Add the following Sections:

20.18 Special Provisions for Certain Places of Worship Which have been Issued a Valid Certificate of Occupancy for Use as a Temporary Overnight Shelter Pursuant to the Building code.

20.18.1 A place of worship which has been issued a valid certificate of occupancy for use as a temporary overnight shelter in accordance with the provisions of the building code shall not be deemed in violation of the provision of this *Code* as a result of such temporary use, as long as the facility meets the following conditions:

(1) The temporary overnight shelter is in possession of a valid certificate of occupancy for such temporary use which has been reviewed and approved by the Head of the Fire Department in accordance with the building code.

(2) The approved temporary overnight shelter is used, occupied, and operated in accordance with the terms and conditions specified in said certificate of occupancy and said certificate of occupancy is posted in a conspicuous location.

(3) In addition to the terms and conditions specified in the certificate of occupancy, the following fire safety requirements shall be applicable:

(a) The building which houses the approved temporary overnight shelter shall have no known existing or outstanding violations of this *Code* or M.G.L. c. 148;

(b) A copy of the fire safety and evacuation plan, approved in accordance with the provisions of the building code shall be kept on the premises and posted near the main entrance;

(c) The responsible person(s) identified in the application for the Temporary Certificate of Occupancy shall maintain the condition of the shelter in accordance with the layout contained in the approved fire safety and evacuation plan.

(d) The employees, volunteers, or attendants of the temporary overnight shelter shall be trained and drilled in the duties that they are to perform in case of fire, panic, or other emergency in accordance with the provisions of 20.2.4.2.1.1. During all hours of overnight activation of an approved temporary overnight shelter, employees, volunteers, and attendants shall be awake and alert. *Exception: Employees, volunteers, and attendants do not need to remain awake if the building is equipped throughout with an interconnected smoke detection and notification system.*

(e) No person shall be permitted to smoke within the temporary overnight shelter.

(f) Smoking may be allowed outside in an area approved by the Head of the Fire Department.

(g) A document shall be posted, in a location approved by the Head of the Fire Department, containing an accurate number of sheltered occupants on a nightly basis.

(h) Such document shall also contain the names of all workers and volunteers who are overseeing or assisting in the temporary overnight shelter usage on a nightly basis. In the event of an evacuation, a copy of the document shall be in the possession of the person in charge at a designated meeting point.

(i) The temporary overnight shelter shall maintain a working landline phone that must be accessible to initiate a call for assistance in the event of an emergency. A cell phone is not acceptable for compliance with this requirement.

(j) The use of battery operated smoke alarms and carbon monoxide detectors, as outlined in Chapter 13. All temporary overnight shelters shall be equipped with monitored and interconnected smoke and carbon monoxide detection system as described in the building code.

(k) Carbon monoxide alarms shall be installed in accordance with Chapter 13. For purpose of compliance with Chapter 13, the dwelling unit of an approved temporary shelter shall be considered that portion of the building used for sleeping purposes.

(l) An approved temporary overnight shelter shall feature working and approved smoke detectors in accordance with the requirements of the building code, if applicable. If smoke detectors are not currently required under the building code, the shelter shall, at a minimum, feature approved working smoke detectors in accordance with the provisions of Chapter 13:

1. *Approved Smoke Detectors*. Such smoke detectors shall be installed in any room or area used for sleeping purposes and in any room or area directly adjacent to said sleeping area.

(m).The Head of the Fire Department shall be notified, in writing, at least 48 hours prior to the actual activation of an approved temporary overnight shelter and shall be notified, in writing, upon the termination of such activation.

Chapter 21 Airports and Heliports

Delete Chapter 21 in its entirety.

Chapter 22 Automobile Wrecking Yards
Modify this Chapter by deleting or replacing the following Sections in Chapter 22 as provided below:

Replace with the following Section:
22.8 Burning Operations. Burning operations shall not be allowed.

Delete the following Section:
22.9.3

Delete the following Section:
22.9.4

Delete the following Section:
22.9.5
Chapter 23
Modify this Chapter by adding the following Section in Chapter 23 as provided below:

Add the following Section:
23.2.1 Maximum Quantities of Hazardous Chemicals. The maximum quantities of hazardous chemicals for a single fabrication area or at a workstation are limited by the building code. A permit shall not be issued until such time that the Building Official has confirmed the facility is classified and constructed as the appropriate H-use group or is exempt.

Chapter 25 Grandstands and Bleachers, Folding and Telescopic Seating, Tents, and Membrane Structures
Delete Chapter 25 in its entirety.

Chapter 26 Laboratories Using Chemicals
Delete Chapter 26 in its entirety.

Chapter 27 Manufactured Home and Recreational Vehicle Sites
Delete Chapter 27 in its entirety.

Chapter 28 Marinas, Boatyards, Marine Terminals, Piers, and Wharves
Delete Chapter 28 in its entirety.

Chapter 29 Parking Garages
Delete chapter 29 in its entirety.

Chapter 30 Motor Fuel Dispensing Facilities and Repair Garages
Modify this Chapter by adding, or replacing the following Sections in Chapter 30 as provided below:

Add the following Section:
30.1.1.4 Underground Storage Tanks, associated piping and other environmental requirements regulated by –310 CMR: *Department of Environmental Protection*.

Replace the following Sections.
30.1.5.1* For an attended self-serve, motor fuel dispensing facility, additional fire protection shall be provided.
30.1.5.2 An automatic fire suppression system shall be installed in accordance with the appropriate NFPA standard, manufacturers' instructions, and the listing requirements of the systems.

30.1.5.3 The fire protection system shall be installed in accordance with the requirements of the State Fire Marshal.

Replace with the following Section:
30.2.7 Fixed Fire Protection. If in the opinion of the AHJ, it is deemed necessary, automatic sprinkler protection shall be installed in accordance with NFPA 13, when any vehicle containing or using gasoline or any other petroleum product for fuel or power is kept in a garage and are loaded with merchandise, which is of such a flammable nature as to be readily ignitable.

Add the following Section:
30.3.1.3 No gasoline shall be handled outside of storage tanks or portable gasoline tanks except in approved safety cans or approved metal or plastic containers, and they shall be kept tightly closed except when in use. Containers used for the handling and storage of gasoline in garages shall have a total quantity not to exceed 12 gallons.

Chapter 31 Forest Products
Modify this Chapter by adding, deleting and replacing or replace the following Sections in Chapter 31 as provided below:

Replace with the following Section:
31.1* General. The outside storage of forest product materials within the purpose and scope of this Chapter shall be in accordance with the provisions of this Chapter.

Delete and replace with the following Section:
31.3.2.1.4 Where the storage of materials regulated by this Chapter are permitted to accumulate in a quantity or location that may constitute an undue public safety hazard, adequate fencing of not less than six (6) feet in height with an approved locked gate located as necessary to allow the entry of fire department apparatus, shall be provided. The fencing shall encompass the material or property.

Replace with the following Section:
31.3.3.3.4 Where stacks are supported clear of the ground, 6 inches (150 mm) of clearance shall be provided for cleaning operations under the stacks or, as otherwise approved by the AHJ.
Replace with the following Section:
31.3.3.4.1.1 Open yard stacking shall be located with not less than 15 feet (4.6 m) clear space to buildings or, as otherwise approved by the AHJ.

Replace with the following Section:
31.3.3.4.1.2 Boundary posts with signs designating stacking limits shall be provided to designate the clear space to unsprinklered buildings in which hazardous manufacturing or other operations take place or, as otherwise approved by the AHJ.

Add the following Section:
31.3.6.4. 3* Property line clearance of not less than 25 feet at the base of the pile shall be provided.

Chapter 32 Motion Picture and Television Production Studio Soundstages and Approved Production Facilities
Modify this Chapter by adding, deleting or replacing the following Sections in Chapter 32 as provided below:

Add the following Section:
32.1.1 Terms and Definitions.
The terms used in this Chapter shall have the meanings respectively assigned to them unless stated otherwise:

Add the following term:
32.1.1.1 On-Site Personnel. Cast, crew, vendors, contractors, and any other personnel servicing the production.

Replace with the following Section:
32.4.2 Permits. Permits shall be obtained for any of the following activities:
- **(1)** Use of pyrotechnic special effects
- **(2)** Use of open flames
- **(3)** Welding
- **(4)** Storage and use of flammable or combustible liquids or gases
- **(5)** Use of aircraft
- **(6)** Presence of motor vehicles within a building
- **(7)** Productions with live audiences

Replace with the following Section:
32.4.7.2 Where the anticipated loads exceed those specified in the building code for the purpose of suspending sets, ceilings, backings, and other heavy production set pieces, the building shall be designed and constructed for the additional loads as required by the building code.

Replace with the following Section:
32.4.8.1 Electrical equipment shall be in accordance with 527 CMR 12.00 *The Massachusetts Electrical Code (Amendments).*

Replace with the following Section:
32.4.11.1.2 A new soundstage or new approved production facility shall be equipped with an approved, supervised automatic sprinkler system in accordance with the building code.

Delete the following Section:
32.4.11.1.3

Replace with the following Section:
32.5.1 General. Section 32.5 shall apply to production locations. [140:5.1]. Temporary use and occupancy shall be regulated by the building code.

Replace with the following Section:
32.5.2 Permits. Permits shall be obtained, unless waived by the AHJ, for any of the following activities:

(1) Use of the site as a production location where more than 30 on-site personnel are present
(2) Use of pyrotechnic special effects
(3) Use of open flames
(4) Welding and cutting
(5) Storage and use of flammable or combustible liquids or gases
(6) Use of aircraft
(7) Presence of motor vehicles within a building
(8) Use of liquefied petroleum gases
(9) Productions with a live audience
(10) Use of fog and haze

Add the following Section:
32.5.2.1 Notification and Permits. Notification shall be made to the Head of the Fire Department, or designee, at least two business days, prior to the use of production locations where 15 to 30 on-site personnel are present, providing permits are not required by Section 32.5.2.
.
Replace with the following Section:
32.5.3.2 Chapter 65 shall be used to regulate any pyrotechnic use.

Replace with the following Section:
32.5.7.1 Sets, scenery, and other equipment shall not impact the structural integrity of existing buildings. Additional loads applied onto the building shall be in accordance with the building code.

Replace with the following Section:
32.5.7.2 Additional loads applied onto the building shall require approval of the building inspector.

Replace with the following Section:
32.5.8.1 Electrical power connections made to the site electrical service shall be in accordance with 527 CMR 12.00 *The Massachusetts Electrical Code (Amendments).*

Delete the following Section:
32.5.8.2

Delete the following Section:
32.5.8.3*

Replace with the following Section:
32.5.10* Means of Egress. The production location shall be provided with the means of egress per the building code.

Replace with the following Section:
32.5.11 Fire Protection. Fire protection shall be provided in accordance with the building code.

Delete the following Sections:
32.5.11.1* through 32.5.11.4*

Chapter 33 Outside Storage of Tires
Delete Chapter 33 in its entirety.

Chapter 34 General Storage
Modify this Chapter by ,replacing the following Section in Chapter 34 as provided below:

Replace with the following Section:
34.4.2.2* Storage in buildings and structures shall not be within two feet of a ceiling, or roof deck or otherwise required by NFPA 13.

Chapter 35 Animal Housing Facilities
Delete Chapter 35 in its entirety.

Chapter 36 Telecommunication Facilities and Information Technology Equipment
Delete Chapter 36 in its entirety.

Chapter 37 Fixed Guideway Transit and Passenger Rail Systems
Delete Chapter 37 in its entirety.

Chapter 42 Refueling
Modify this Chapter by adding, deleting or replacing the following Sections in Chapter 42 as provided below:

Replace with the following Section:
42.1 General. Chapter 42 shall apply to refueling of automotive vehicles and marine vessels which are upstream from the point of delivery. It shall not be applied to the transportation of fuel gases over the highways in interstate commerce or vehicles complying with Federal Motor Vehicle Safety Standards.

Add the following Sections:
42.1.1 The following terms are in addition to the terms used in NFPA 52. and shall have the meanings assigned to them, unless the context clearly indicates otherwise.
42.1.1.1 Point of Delivery. The outlet of the service meter assembly or the outlet of the service regulator or the crash valve or service shut off valve where no meter is provided.
42.1.1.2 Certificates. Certificates, where required, shall comply with Section 1.12.8.51 and Section 1.13, as applicable.

Add the following Section:
42.2.2.3 This Chapter shall apply to the transportation of Class II and Class IIIA combustible liquids, by Massachusetts registered motor vehicles in cargo tanks, portable tanks and transfer tanks by transport vehicles and flammable liquids in non-bulk packagings.

Add the following Section:
42.2.2.4 The intent of this Chapter is to protect the public safety and welfare from the danger of fire due to tank or container leakage of flammable or combustible liquidsand is in addition to the requirements of the U.S. Department of Transportation, (DOT) Title 49 CFR.

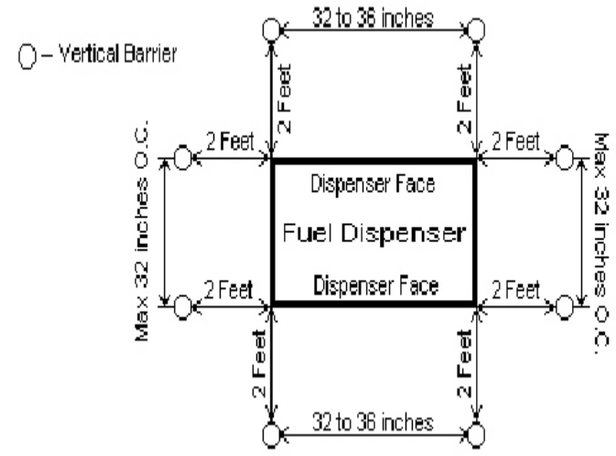
Replace with the following Section:
42.3.3.1 Underground Tanks. Underground storage tanks shall comply with 310 CMR and meet all applicable requirements of Chapters 21 and 22 of NFPA 30.

Replace with the following Section:
42.3.3.8* Corrosion Control. Any portion of a tank or its piping that is in contact with the soil shall have properly engineered, installed, and maintained corrosion protection in accordance with the American Petroleum Institute, the American Society of Mechanical Engineers, or Underwriters Laboratories Inc.. If corrosion is anticipated beyond the applicable design formulas or standards, additional metal thickness or approved protective coating or liners shall be provided to compensate for corrosion loss expected during the

design life of the tank. If requested by the AHJ, an engineering analysis may be required to assure compliance.

Add the following Section:
42.5.3.4.1 Dispensing devices shall:
(1) Be rigidly mounted;
(2) Be protected from vehicle damage by at least one of the following:
(a) The dispensing device shall be mounted on a concrete platform at least six inches in height. Vertical barriers shall be installed at the ends of pumps

Figure 42.5.3.4.1



Replace with the following Section:
42.5.3.6.3 Maintenance. At least annually or when maintenance to dispensing devices is necessary and such maintenance is capable of causing accidental release or ignition of liquid, the following precautions shall be taken before such maintenance is begun:

Replace with the following Section:
42.5.5.1 Listed hose assemblies shall be used to dispense fuel. Hose length at automotive motor fuel dispensing facilities shall not exceed 18 ft (5.5 m). Where hose length at marine motor fuel dispensing facilities exceeds 18 ft (5.5 m), the hose shall be secured so as to protect it from damage. [**30A:**6.5.1] Where fuel hose length at a marine fueling facility exceeds 30feet, the fuel hose shall be secured by a hose retrieving mechanism to protect it from damage.

42.5.6.4 Dispensing nozzles used at marine motor fuel dispensing facilities shall be of the listed automatic closing–type hose nozzle valve with a latch-open device.

Replace with the following Section:
42.6.1.4.1* For an attended, self-serve, motor fuel dispensing facility, additional fire protection shall be provided where required by the State Fire Marshal.

Delete the following Section:
42.7.2.1*

Replace with the following Section:
42.7.2.5.3 Fire Suppression Systems. For attended self- serve facilities, automatic fire suppression systems shall be installed in accordance with the appropriate NFPA standard, manufacturers' instructions, and the listing requirements of the systems.

Add the following Section:
42.7.4.2.1 Facilities of 1,000 square feet or less of retail sales area and eight or less fueling positions may be operated by one employee. Facilities of more than 1,000 square feet of retail sales area and less than eight positions shall be operated by more than one employee during non peak business hours. Non peak hours shall be determined based upon actual customer counts taken by the owner/operator during at least a 30 day period when the facility is operating. A non peak hour shall be any 60 minute period during which 12 or less customers purchase motor fuel. Records of customer counts and motor fuel sales and receipts shall be maintained by the owner/operator and shall be made readily available upon request of the AHJ.

Add the following Section:
42.7.4.5 The dispensing of motor fuel by means of self-service automated dispensing systems shall be permitted, provided that the applicant for such a system has submitted complete plans and specifications of the proposed installation to the State Fire Marshal, accompanied by the required examination fee as

authorized in M.G.L. c. 7, § 3B and has obtained approval of such plans, and further provided that there is compliance with the following:

(1) ATTENDED SELF-SERVICE MOTOR FUEL DISPENSING FACILITY MAY BE ALLOWED PROVIDED THAT:

(a) The service station is under the control of the owner, operator, or duly authorized employee who shall be on duty at all times while motor fuel is being sold or dispensed.

(b) The motor fuel shall be dispensed only by a competent licensed motor vehicle operator or by the service station attendant.

(c) Approved signs bearing the wording "Extinguish All Smoking Materials" and "Stop Engine While Refueling" shall be conspicuously posted at both ends of the pump dispensing island visible to approaching vehicles. All approved signs required shall consist of block letters not less than two inches in height and be either red letters on a white background or white letters on a red background.

(d) The controlling mechanism console providing power to the pump motor is in constant attendance by the owner, operator or duly authorized employee at all times while motor fuel is being dispensed and is properly protected against physical damage from motor vehicles. Constant attendance shall mean that the console operator must be at the console during its operation.

(e) There is constant contact between the controlling mechanism console operator and the pump island by means of an intercommunication system which shall be maintained in proper operating condition at all times while motor fuel is being dispensed.

(f) A means is provided for the controlling mechanism console operator to observe the filling operation at each vehicle, and the dispensing of motor fuel shall be continuously observed by the console operator during the time that any of the pumps have been activated to dispense motor fuel.

(g) Unrelated business (vending areas, convenience food marts, automotive repair garages, car washes, etc.) shall be operated by others.

(h) The controlling mechanism console includes a disconnect switch which will instantly cut off all pumping power to all motor fuel pumps at the service station.

(i) The controlling mechanism console, switches and related equipment are of a design and type listed for use with the dispensing devices.

(j) Any person, firm, or corporation constructing a self-service facility or making changes or alterations, in the method of dispensing motor fuel, or to the pre-engineered fixed fire extinguishing system(s) other than normal maintenance, or to the self-service dispensing island arrangement(s) resulting in a change of hazard area protection, or environmental changes resulting in the inability of a console operator to constantly observe the fuel dispensing operation, shall notify the Head of the Fire Department, in writing, prior to submitting plans to the State Fire Marshal.

(k) Self-service automated motor fuel dispensing systems shall be equipped with an overhead fixed fire extinguishing system of a type approved by the State Fire Marshal, details of which shall be included with plans submitted to the State Fire Marshal for approval.

(l) The use of automatic credit card reading devices as a means of payment at the pump island shall be allowed provided that:

1. Each sale shall be individually authorized by the self-serve attendant;

2. The automatic credit card reading device shall not be used as physical authorization for the dispensing of motor fuel; and

3. The automatic credit card reading devices are included on plans submitted to and approved by the State Fire Marshal.

(2) Split island facilities may be allowed provided that:

(a) There shall be installed on the full service islands an additional switch which will activate the overhead fire extinguishing system, and deactivate power to the self-service island dispensing pumps

(b) Whenever the self-service dispensing mechanism is in operation, the service station operator shall be within visual range of the filling operation by either being at the controlling mechanism console or at the full service pump island within 25 feet of the switch.

Delete the following Sections:
42.7.5 through 42.7.5.6

Replace with the following Section:
42.7.6.3 The dispensing hose shall not exceed 150 feet in length.

Add the following Sub-section:
42.9.1.2(4) Foreign vessels regulated under Title 33 CFR 155 and U.S. and foreign public vessels, i.e. warships, naval auxiliaries or other ships owned and operated by a country when engaged in non-commercial service.

Add the following Sections:
42.9.3.6 Marine wharves greater than 200 feet in length having a fueling facility shall be equipped with a minimum of four approved shut-off controls.
42.9.3.6.1 One shut-off control shall be a pump switch which will be the control used by the operator to dispense the fuel under normal conditions (approved fuel delivery nozzle).
42.9.3.6.2 The second shut-off control valve shall be located four feet from the base of the metering unit.

42.9.3.6.3 The third shut-off control valve shall be located 15 feet from the metering unit.
42.9.3.6.4 The fourth shut-off control valve shall be located on the shore side of the metering unit at a point where the piping system starts to extend over the water.
42.9.3.6.5 The location of such approved shut-off control devices shall be familiar to the fueling facility operations supervisor.
42.9.3.6.6 Said shut-off controls are to be marked "EMERGENCY FUEL SHUT OFF" in two inch red block capital letters and shall be accessible at all times.

Add the following Section:
42.9.3.7 Shut-off and check valves shall be equipped with a pressure-relieving device that will relieve any pressure generated by thermal expansion of the contained liquid back to the storage tank.

Add the following Section:
42.9.3.8 Marine piping systems shall contain a sufficient number of approved valves to control the flow of flammable or combustible liquid during normal operations and to provide adequate shut-off protection in the event of fire or physical damage.

Add the following Section:
42.9.4.1.1 Said hose shall be a rubber like material resistant to petroleum products and petroleum product additives, containing a continuous static ground, not exceeding 30' in length. Where hose length at a marine fueling facility exceeds 30' the hose shall be secured by a hose retrieving mechanism so as to protect it from damage.

Replace the following Section:
42.9.4.2 Dispensing nozzles shall be of the automatic-closing type with a latch-open device.

Add the following Sections:
42.9.4.8 If a remote pumping system is used, a labeled or listed rigidly anchored emergency shut-off valve incorporating a fusible link or other thermally actuated device, designed to close automatically in event of fire exposure or severe impact, shall be installed in accordance with the manufacturer's instructions in the flammable or combustible liquid supply line at the base of each individual dispenser or at the inlet of each overhead dispenser.
42.9.4.8.1 The automatic closing feature of this valve shall be checked at least once a month by manually tripping the hold-open linkage.
42.9.4.8.2 An emergency shut-off valve incorporating a slip-joint feature shall not be used.

Add the following Section:
42.9.4.9 The fueling facility shall be located so as to minimize exposure to all other operational marina or pleasure boat berthing area facilities. Where tide and weather conditions permit, all flammable and combustible liquid fuel handling shall be outside the main berthing area. Inside marina or pleasure boat berthing area, fueling facilities shall be so located that in case of fire aboard a boat alongside, the danger to other boats near the facility will be minimal. No vessel or craft shall be made fast to or berthed at any marine wharf, except during fueling operations, and no vessel or craft shall be made fast to any other vessel or craft occupying a berth at a marine wharf, or other fueling facility.

Add the following Section:
42.9.4.10 Fueling of floating marine craft at other than a fueling facility is prohibited except by prior written authorization by the AHJ.

Add the following Sections:
42.9.7.4 All marine fueling facilities shall provide roadways to provide for adequate access for emergency vehicles, including fire apparatus to within 150 feet (45m) or less travel distance to the shore end of the marine wharf.
42.9.7.4.1 When approved by the Head of the Fire Department, a manual standpipe system shall be permitted to be installed along marine wharfs when conditions are such that providing fire department access roads to within 150 feet (45m) of the shore end of the marine wharf is not practical.

Add the following Sections:
42.9.7.5 A manual standpipe system shall be installed at all fueling wharfs where the travel distance from the closest point of access for the fire department apparatus to the most remote accessible portion of the marine wharf exceeds 150 feet (45m).
42.9.7.5.1 The type and location of standpipe systems and standpipe outlets shall be approved by the Head of the Fire Department, but in no case shall they be more than 150 feet (45m) of travel distance apart, and no more than 150 feet (45m), travel distance from a dead end.
42.9.7.5.2 The fire department pumper can be considered as a standpipe system discharge point if it is within 150 feet (45m) of the shore end of the marine wharf.

42.9.7.5.3 The standpipe piping shall be no less that 3 inches (76.2mm) inside side nominal diameter and sized to provide a minimum of 500 gpm (1893L/min) at 100 psi outlet pressure at the hydraulically most remote outlet with an outlet.

Add the following Sections:
42.9.7.6 Hydrants shall be provided on marine fueling facility wharfs where fire apparatus is expected to drive onto the wharf to protect a fueling facility.
42.9.7.6.1 The hydrants shall be installed, tested and maintained in accordance with NFPA 307 in locations approved by the Head of the Fire Department.
42.9.7.6.2 In addition, a hydrant shall be within 100 feet of the required standpipe connection.
42.9.7.6.3 If available, the type and capacity of the water supply system for the fire hydrants shall be sufficient to deliver adequate water and water pressure as determined by the Head of the Fire Department, who shall take into consideration the relative fire hazard, the property involved, the availability of marine firefighting equipment, and the time frame that the water supply volume will be required to be maintained.

Add the following Section:
42. **9.8.4** No cargo tank, portable tank or transfer tank shall be mounted in the bed or body of any vehicle which contains a hoist to raise such bed or body.

Add the following Section:
42.9.9.8 Vehicles, other than approved tank vehicles, may transport combustible liquids in transfer tanks, provided that an application has been made and a permit to transport has been issued. The vehicle shall be approved for the transportation of the combustible liquid provided that:

- **(1)** The tank shall be constructed of not less than 14 USS gauge standard open hearth steel tank plate or 1/8 inch aluminum and otherwise constructed to withstand any additional stress to which it may reasonably be subjected.
- **(2)** The liquid is drawn only from the top of the tank by means of a suitable pump to which is attached a durable hose equipped with a self-closing nozzle.
- **(3)** All openings in the tank are secured by plugs or caps maintained wrench tight while the vehicle is in transit.
- **(4)** The tank is securely mounted to the vehicle body or truck bed and its capacity does not exceed 119 gallons.

Add the following Section:
42.9.9.9 Any flammable or combustible liquid transported by other than cargo tank, portable tank or transfer tank shall be transported in listed containers, with all openings tightly closed, and in an upright and secured position.

Add the following Sub-section:
42.9.10.1(5) In the event of a leak, rupture, spill, overflow or other incident involving the handling of flammable or combustible liquids, at the fuel facility, both the Fire Department and the State Fire Marshal shall be notified immediately by the fueling operations supervisor or the permit holder.

Delete the following Section:
42.10 through 42.10.5.22

Delete the following Section:
42.11.1

Replace with the following Section:
42.11.1.1.1 Section 42.11 shall apply to the design, installation, operation, appliance and maintenance of gaseous fuels and for fueling vehicle (dispensing) systems, equipment and associated storage, including vehicle fueling (dispensing) systems [52:1.1.1]. Such installation, operation, appliance, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained in accordance with this *Code* and the approved design documents.

Delete the following Sections:
42.11.1.1.2 through 42.11.1.1.8

Add the following Section:
42.11.1.1.9 Marker Plate, Sign.
Any liquefied gaseous system container or cylinder installation shall be provided with a marker plate or sign indicating the name and telephone number of the supplier, facility maintenance person, owner, or operator responsible for responding to the permitted location in the event of an emergency.

Add the following Sections:
42.12.1 Fuel Vessels and Barges.

42.12.2 No fuel barge or fuel vessel shall be permitted to anchor or moor for fueling purposes within a marina or pleasure boat berthing area.
42.12.3 A 200 foot radius marine fueling safety zone shall be maintained between the fuel barge, or fuel vessel acting as a fueling facility, and any marina or pleasure boat berthing area.
42.12.4 This 200 foot radius marine fueling safety zone may be subject to written review by the Head of the Fire Department in specific instances.
42.12.5 The State Fire Marshal shall approve the marine fueling safety zone written review.
42.12.6 Fuel barges and fuel vessels shall be subject to assignment as to location by the harbor master in accordance with the authority vested in him by M.G.L. c. 102. When located on waters where no harbor master is provided, such assignment shall be made by the State Fire Marshal. The State Fire Marshal shall approve the permanent assignment of fuel barges and fuel vessels.
42.12.7 Fuel barges, fuel vessels, and fueling facilities shall be open to inspection by the AHJ or a harbor master having jurisdiction.
42.12.8 Flammable and combustible liquids kept for resale on fuel barges or fuel vessels shall be stored in metal tanks. Such tanks shall be constructed, braced and secured so as to prevent injury, rupture or displacement and to withstand the normal stresses to which they may be subjected. Tanks constructed in accordance with Code of Federal Regulations Title 46 CFR Part 30-40, subchapter D-Tank Vessels, will be considered as complying with the requirements of this chapter.
42.12.9 Every fuel barge or fuel vessel used for the keeping of flammable or combustible liquids for resale and every fuel barge or fuel vessel used for the transportation of flammable or combustible liquids, shall be identified by a name marked in clearly legible letters not less than four inches in height on some clearly visible exterior part of the port and starboard bow and the stern of that fuel barge or fuel vessel.
42.12.10 Fuel barges and fuel vessels which, in the opinion of the Head of the Fire Department or the State Fire Marshal, pose a substantial fire hazard due to the cargo they are carrying or the location they are moored shall rig fire warps. Fire warps shall consist of hausers of sufficient size to take the barge or vessel under tow in the event of an emergency. Fire warps shall be secured to the deck of the barge or vessel and shall hang over the outboard side to within six feet of the surface of the water. An eye shall be spliced into the outboard end of the warp of sufficient size to permit the rapid attachment of a towing shackle.
42.12.11 Every fuel barge, fuel vessel, or fueling facility used for the keeping of flammable or combustible liquids for resale shall be provided with such fire extinguishing appliances as required by Section 13.6.

Add the following Sections:
42.13 Containers and Movable Tanks.
42.13.1 The temporary use of movable tanks in conjunction with the dispensing of liquids into the fuel tanks of marine craft shall be permitted. Such use shall only be made with the approval of the AHJ.
42.13.2 Class I or Class II liquids shall not be dispensed into a portable container unless the container is constructed of metal or is listed for its use, has a tight closure, and is fitted with a spout or is so designed that the contents can be dispensed without spilling.
42.13.3 Portable containers of 12 gal (45 L) capacity or less shall not be filled while they are in or on a marine craft.
42.13.4 Smoking is prohibited on any fuel barge or fuel vessel used for the keeping of flammable or combustible liquids for resale and on any fuel barge or fuel vessel used for the transportation, storage or delivery of flammable or combustible liquids.

Add the following Section:
42.14.1 All electrical components shall be installed and used in accordance with 527 CMR 12.00: *Massachusetts Electrical Code.(Amendments).*

Add the following Section:
42.14.2 Clearly identified emergency switches, readily accessible in case of fire or physical damage at any dispensing unit, shall be provided on each marine wharf so interlocked as to shut off power to all pump motors from any individual location and to reset only from the master switch at the main electrical disconnect panel. Each such switch is to be identified by an approved sign stating "EMERGENCY PUMP SHUTOFF" in two inch red block capital letters.

Add the following Section:
42.14.3 A readily accessible valve to shut off the liquid supply from shore shall be provided in each pipeline, at or near the approach to the pier and at the shore end of each marine pipeline adjacent to the point where each flexible hose is attached. Each valve shall be marked "EMERGENCY FUEL SHUT OFF" in two inch red block capital letters.

Add the following Sections:
42.15 Transportation by Transfer Tanks.
42.15.1 Vehicles other than approved tank vehicles may transport combustible liquids in transfer tanks, provided that an application has been made and a permit to transport has been issued in accordance with this *Code*.
42.15.2 The vehicle shall be approved for the transportation of the combustible liquid provided that:
(1) The tank is securely mounted to the vehicle body or truck bed and its capacity does not exceed 119

gallons;

(2) The tank shall be constructed of not less than 14 USS gauge standard open hearth steel tank plate or 1/8 inch aluminum and otherwise constructed to withstand any additional stress to which it may reasonably be subjected;

(3) The liquid is drawn only from the top of the tank by means of a suitable pump to which is attached a durable hose equipped with a self-closing nozzle;

(4) All openings in the tank are secured by plugs or caps maintained wrench tight while the vehicle is in transit;

(5) The vehicle is equipped with a fire extinguisher in accordance with Section 13.6.

Add the following Section:
42.15.3 Any flammable or combustible liquid transported by other than cargo tank, portable tank or transfer tank shall be transported in listed and labeled containers, with all openings tightly closed, and in an upright and secured position.

Add the following Section:
42.15.4 No person shall transport by cargo tank or transport vehicle, any combustible liquid within the Commonwealth unless such liquid is transported in accordance with the requirements of this Chapter. No person shall transport by cargo tank or transport vehicle, any flammable liquid unless such liquid is transported in accordance with U.S. DOT, Title 49 CFR.

Chapter 44 Solvent Extraction
Delete Chapter 44 in its entirety

Chapter 45 Combustible Fibers
Modify this Chapter by modifying and replacing the following Sections in Chapter 45 as provided below:

Modify the following Section:
45.5.3.1 from ¾ hour to 1 hour.

Replace with the following Section:
45.6.1.1 No single block or pile shall contain more than 7,500 cubic feet of combustible fibers, exclusive of aisles or clearances. However, a single block or pile shall be permitted containing 25,000 cubic feet of combustible fibers, exclusive of aisles or clearances, if the criteria of NFPA 13 are met.

Chapter 50 Commercial Cooking Equipment
Modify this Chapter by adding, modifying, and replacing the following Sections in Chapter 50 as provided below:

Replace with the following Section:
50.2.1.1 Cooking equipment used in processes producing smoke or grease-laden vapors shall be equipped with an exhaust system that complies with all the equipment and performance requirements of this Chapter [96:4.1.1].

(1) Type 1 hoods are required for the removal of grease-laden vapors provided they meet all the material and performance requirements of this *Code*.

(2) The following are types of hoods used for exhaust:

(a) Type I. Hoods designed for grease exhaust applications.

(b) Type II. Hoods designed for heat and steam removal and other nongrease applications. These hoods are not applicable to this standard.

Replace with the following Section:
50.2.1.2 Certificates. Certificates, where required, shall comply with Section 1.13.

Add the following Section:
50.5.4.1 If the AHJ determines that the exhaust system of such operation has not been inspected pursuant to Section 50.5.4 for grease buildup within the past 12 month period, the AHJ shall issue an order to cease such operation pending such inspection. Section 50.5.4.1 shall not limit the ability of the AHJ to issue such other reasonable orders relating to compliance with this Chapter.

Replace with the following Section:
50.5.6.2* Hoods, grease removal devices, fans, ducts, and other appurtenances shall be cleaned to remove combustible contaminants to a minimum of 50 μm (0.002 in.). A measurement system of deposition shall be

established for each facility to trigger a need to clean, to verify the requirements contained in Table 50.5.4, in addition to a time reference based on equipment emissions.

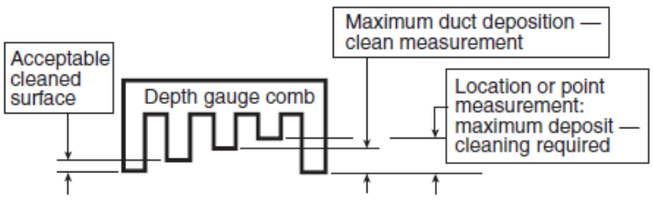


FIGURE A.50.5.6.2 Depth Gauge Comb. [96:Figure A.11.6.2]

Add the following Sections:
50.5.6.2.1 The owner or operator of the commercial cooking operation, or employee thereof, shall not be prohibited from conducting the actual cleaning and grease removal of hoods, grease removal devices, fans, ducts and other appurtenances of his or her own commercial cooking operations, as long as said owner, operator, or employee holds a "restricted" Certificate of Competency issued by the State Fire Marshal. However, this provision does not allow such owner, operator, or employee to conduct such cleaning services for any other commercial kitchen operation.
50.5.6.2.1.1 A qualified individual who will be offering or conducting cleaning or inspection services shall hold a Certificate of Competency issued by the State Fire Marshal.

Replace with the following Section:
50.5.6.13 When an exhaust cleaning service is used, a certificate showing the name of the servicing company, the name of the person performing the work, and the date of inspection or cleaning shall be maintained on the premises. [96:11.6.13]. The content, size, design, and placement of any label shall be prescribed by the State Fire Marshal.

Add the following Sections:
50.5.6.14.1 If a qualified individual determines that a commercial cooking system, after cleaning or inspection thereof, is not in compliance with this Chapter, relative to grease buildup and related contaminants, said individual shall, within 48 hours, notify in writing, on a form prescribed by the State Fire Marshal, the Head of the Fire Department of the location of said system and the nature of such non-compliance. A copy of said form shall also be given to the owner and operator of the system.
50.5.6.14.1.1 A record of each inspection for grease and related contaminants and each cleaning activity relating to grease buildup shall be produced by the qualified person who conducted said inspection or cleaning. Said record shall include: the date of inspection, location, the Certificate of Competency number of the inspector or cleaner, and such other information as determined by the State Fire Marshal. A copy of such record shall be maintained by:

(1) the operator within the building or structure where the system is located; and
(2) the qualified person who conducted said inspection or cleaning activity. Such records shall be open to the inspection of the AHJ during regular hours of operation and shall be maintained for a period of at least three years.

Chapter 52 Stationary Storage Battery Systems.
Modify this Chapter by deleting the following Section:
Delete the following Section:
52.2.1

Chapter 53 Mechanical Refrigeration.
Modify this Chapter by deleting the following Section:
Delete the following Section:
53.1.3.1

Chapter 54 Ozone Gas–Generating Equipment
Delete Chapter 54 in its entirety:

Chapter 60 Hazardous Materials
Modify this Chapter by adding, modifying, deleting and replacing the following Sections in Chapter 60 as provided below:

Add the following Sub-sections:
60.1.2 (15) Closed piping systems containing flammable or combustible liquids or gases utilized for the operation of machinery or equipment.
60.1.2 (16) The storage or utilization of materials for agricultural purposes on the premises complying with the building code Appendix 115 Section C.
60.1.2 (17) The storage of black powder, smokeless propellants, small arms primer in use group M or R-3 and special industrial explosive devices in use group B, F, M, and S provided the storage conforms to Ch. 65.

Add the following Section:
60.4.2.1.1.3.1 A permit shall not be issued in excess of these quantities until such time it is confirmed that the facility is classified and constructed in accordance with the building code as the appropriate H-use, control area or is exempt.

Modify the following Table 60.4.2.1.1.3:

Table 60.4.2.1.1.3 Maximum Allowable Quantity (MAQ) of Hazardous Materials per Control Area[a, W, V]

Material	Class	High Hazard Protection Level	Storage			Use-Closed Systems			Use-Open Systems	
			Solid Pounds	Liquid Gallons (lb)	Gas[b] ft³ (lb) [gal]	Solid Pounds	Liquid Gallons (lb)	Gas[b] ft³ (lb) [gal]	Solid Pounds (ft³)	Liquid Gallons (lb)
Combustible liquid[c, d, e, f, U]	II	2 or 3	NA	120[g, h]	NA	NA	120[h]	NA	NA	30[h]
	III-A	2 or 3	NA	330[g, h]	NA	NA	330[h]	NA	NA	80[h]
	III-B	NA	NA	13,200[g, i]	NA	NA	13,200[i]	NA	NA	3,300[i]
~~Consumer fireworks~~	~~1.4G~~	~~3~~	~~125[g, h, k]~~	~~NA~~	~~NA~~	~~NA~~	~~NA~~	~~NA~~	~~NA~~	~~NA~~
Cryogenic fluid	flammable	2	NA	45[h, ~~t, u~~]	NA	NA	45[h, ~~t, u~~]	NA	NA	~~45~~10[h ~~t, u~~]
	oxidizing	3	NA	45[g, h]	NA	NA	45[g, h]	NA	NA	~~45~~10[g, h]
	inert	NA	NA	NL	NA	NA	NL	NA	NA	NL
Explosives	NA	1	1[g, l, m, n]	(1)[g, l, n]	NA	1/4[l]	(1/4)[l]	NA	(1/4)[l]	(1/4)[l]
Flammable, gas	Gaseous	2	NA	NA	1000[g, h]	NA	NA	1000[g, h]	NA	NA
	Liquefied	2	NA	NA	(150)[g,h]	NA	NA	(150)[g,h]	NA	NA
	Liquefied Petroleum (LP)	2	NA	NA	(300)[o,p]	NA	NA	(300)	NA	NA
Flammable liquid[c, d, f, q, U]	I-A	2 or 3	NA	30[g, h]	NA	NA	30[h]	NA	NA	10[h]
	I-B and IC		NA	120[g, h]	NA	NA	120[g, h]	NA	NA	30[g, h]
	Combination I-A, I-B, I-C		NA	120[g, h, r]	NA	NA	120[g, h, r]	NA	NA	30[h, r]
Flammable solid	NA	3	125[g, h]	NA	NA	125[h]	NA	NA	25[g, h]	NA
Inert gas	Gaseous	NA	NA	NA	NL	NA	NA	NL	NA	NA
	Liquefied	NA	NA	NA	NL	NA	NA	NL	NA	NA
Organic peroxide	UD	1	1[g, l]	(1)[g, l]	NA	1/4[l]	(1/4)[l]	NA	1/4[l]	(1/4)[l]
	I	1	5[g, h]	(5)[g, h]	NA	1[h]	(1)[~~h~~]	NA	1[h]	(1)[h]
	II	2	50[g, h]	(50)[g, h]	NA	50[h]	(50)[h]	NA	10[h]	(10)[h]
	III	3	125[g, h]	(125)[g, h]	NA	125[h]	(125)[h]	NA	25[h]	(25)[h]
	IV	NA	NL	NL	NA	NL	NL	NA	NL	NL
	V	NA	NL	NL	NA	NL	NL	NA	NL	NL
Oxidizer	4	1	1[g, l]	(1)[g, l]	NA	¼[l]	(1/4)[l]	NA	¼[l]	(1/4)[l]
	3[j]	2 or 3	10[g, h]	(10)[g, h]	NA	2[h]	(2)[h]	NA	2[h]	(2)[h]
	2	3	250[g, h]	(250)[g, h]	NA	250[h]	(250)[h]	NA	50[h]	(50)[h]
	1	NA	4,000[g, i]	(4,000)[g, i]	NA	4,000[g]	(4,000)[i]	NA	1,000[g]	(1,000)[g]
Oxidizing gas	Gaseous	3	NA	NA	1,500[g, h]	NA	NA	1,500[g, h]	NA	NA
	Liquefied	3	NA	(150)[g,h]	NA		(150)[g,h]	NA	NA	
Pyrophoric	2	4[g,t]	(4)[g,t]	NA	1[t]	(1)[t]	NA	0	0	

Pyrophoric Gas	Gaseous	2	NA	NA	50[g, l]	NA	NA	~~50~~10[g, l]	NA	NA
	Liquefied	2	NA	NA	(4)[g, l]	NA	NA	(4)[g, l]	NA	NA
Unstable (reactive)	4	1	1[g, l]	(1)[g, l]	NA	¼[l]	(¼)[l]	NA	¼[l]	(¼)[~~h~~l]
	3	1 or 2	5[g, h]	(5)[g, h]	NA	1[h]	(1)[h]	NA	1[h]	(1)[h]
	2	2	50[g, h]	(50)[g, h]	NA	50[h]	(50)[h]	NA	10[h]	(10)[h]
	1	NA	NL	NL	NA	NL	NL	NA	NL	NL
Unstable (reactive) Gas										
	Gaseous									
	4 or 3 detonable	1	NA	NA	10[g,l]	NA	NA	10[g,l]	NA	NA
	3 non-detonable	2	NA	NA	50[g,h]	NA	NA	50[g,h]	NA	NA
	2	3	NA	NA	750[g, h]	NA	NA	750[g, h]	NA	NA
	1	NA	NA	NA	NL	NA	NA	NL	NA	NA
Unstable (reactive) Gas	Liquefied									
	4 or 3 detonable	1	NA	NA	(1)[g,l]	NA	NA	(1)[g,l]	NA	NA
	3 non-detonable	2	NA	NA	(2)[g, h]	NA	NA	(2)[g, h]	NA	NA
	2									
		3	NA	NA	[30][g, h]	NA	NA	[30][g, h]	NA	NA
	1	NA	NA	NA	NL	NA	NA	NL	NA	NA
Water (reactive)	3	2	5[g, h]	(5)[g, h]	NA	5[h]	(5)[h]	NA	1[h]	(1)[h]
	2	3	50[g, h]	(50)[g, h]	NA	50[h]	(50)[h]	NA	10[h]	(10)[h]
	1	NA	NL	NL	NA	NL	NL	NA	NL	NL
Corrosive	NA	4	5,000[g, h]	500[g, h]	NA	5,000[h]	500	NA	1,000[h]	100[h]
Corrosive gas	Gaseous	4	NA	NA	810[g, h]	NA	NA	810[g, h]	NA	NA
	Liquefied		NA	NA	(150)[g, h]	NA	NA	(150)[g, h]	NA	NA
Highly toxic	NA	4	10[g, h]	(10)[g, h]	NA	10[h]	(10)[h]	NA	3[h]	(3)[h]
Highly toxic gas	Gaseous	4	NA	NA	20[h, s]	NA	NA	20[h, s]	NA	NA
	Liquefied		NA	NA	(4)[h, s]	NA	NA	(4)[h, s]	NA	NA
Toxic	NA	4	500[g, h]	(500)[g, h]	NA	500[h]	(500)[h]	NA	125[h]	(125)[h]
Toxic gas	Gaseous	4	NA	NA	810[g, ~~h~~]	NA	NA	810[g, h]	NA	NA
	Liquefied		NA	NA	(150)[g, ~~h~~]	NA	NA	(150)[g, h]	NA	NA

[a] Section 60.4.2.1.1.2 for exceptions to tabular amounts. For use of control areas, Section 60.2.3. Table values in parentheses correspond to the unit name in parentheses at the top of the column. The aggregate quantity in use and storage is not permitted to exceed the quantity listed for storage. In addition, quantities in specific occupancies are not permitted to exceed the limits in 60.1.26.2.

[b]Measured at 70 °F (21°C) and 14.7 psi (30 kPa).

[c]Inside a building, the maximum capacity of a combustible liquid storage system that is connected to a fuel-oil piping system is permitted to be 660 gal (2500 L), provided that such system conforms to NFPA 31, *Standard for the Installation of Oil-Burning Equipment*.

[d]Flammable and combustible liquids and flammable gases in the fuel tanks of mobile equipment or vehicles are permitted to exceed the MAQ where the equipment is stored and operated in accordance with this *Code*.

Delete the following note:
Note e

[f]The quantity of fuel in aircraft in hangars is required to be in accordance with NFPA 409, *Standard on Aircraft Hangars*.

[g]Quantities are permitted to be increased 100 % where stored or used in approved cabinets, gas cabinets, exhausted enclosures, gas rooms, explosives magazines, or safety cans, as appropriate for the material stored, in accordance with NFPA 1. Where Footnote h also applies, the increase for both footnotes is permitted to be applied accumulatively.

[h]Maximum quantities are permitted to be increased 100 % in buildings equipped throughout with an automatic sprinkler system in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems*. Where Footnote g also applies, the increase for both footnotes is permitted to be applied accumulatively.

[i]The permitted quantities are not limited in a building equipped throughout with an automatic sprinkler system in accordance with NFPA 13.

[j]A maximum quantity of 200 lb (91 kg) of solid or 20 gal (76 L) of liquid Class 3 oxidizers is permitted where such materials are necessary for maintenance purposes, operation, or sanitation of equipment. Storage containers and the manner of storage are required to be approved.

[k]Unless the actual weight of the pyrotechnic composition of the consumer fireworks, 1.4G, is known, 25 % of the gross weight of the fireworks, including packaging, is permitted to be used to determine the weight of the fireworks for the purpose of this table.

[l]Permitted only in buildings equipped throughout with an automatic sprinkler system in accordance with NFPA 13.

[m]Maximum quantities of black powder, smokeless propellant, and small arms primers stored or displayed in mercantile occupancies or stored in one- or two-family dwellings are permitted to exceed the amount specified by this table where such storage complies with the requirements of NFPA 495, *Explosive Materials Code*, Chapter 13.

[n]In *lieu* of the maximum allowable quantity limit per control area, the maximum aggregate quantity per building of special explosive devices in industrial, mercantile, and storage occupancies shall be limited to 50 lb.

Delete the following note:
Note o

[p]In mercantile occupancies, storage of LP-Gas is limited to a maximum of 200 lb (91 kg) in nominal 1 lb (0.45 kg) LP-Gas Containers.

Delete the following note:
q

[r]Containing not more than the maximum allowable quantity per control area of Class I-A, Class I-B, or Class I-C flammable liquids.

[s]Allowed only where stored or used in gas rooms or in approved gas cabinets or exhausted enclosures, as specified in this *Code*.

[t]None allowed in unsprinklered buildings unless stored or used in gas rooms or in approved gas cabinets or exhausted enclosures, as specified in this *Code*.

Modify the following note:

[u]The quantities of alcoholic beverages in retail and wholesale sales occupancies shall not be limited providing the liquids are packaged in individual containers not exceeding 1.3 gallons. In retail and wholesale sales occupancies, the quantities of medicines, foodstuffs, consumer or industrial products, and cosmetics containing not more than 50 % by volume of water-miscible liquids with the remainder of the solution not being flammable, shall not be limited, provided that such materials are packaged in individual containers not exceeding 1.3 gallons.

[v] The quantities of alcohol-based hand rubs classified as Class I and II liquids and Level 1 aerosols are not limited when installed in individual dispensers in accordance with 66.18.6 [400: Table 5.2.1.2]

[w] For gallons of liquid, divide the amount in pounds by 10.

Replace with the following Section:
60.4.2.1.1.3 A permit shall not be issued in excess of these quantities until such time that the Building Official has confirmed the facility is classified and constructed as the appropriate a H-use, control area, or is exempt.

Add the following Section:
60.4.2.1.1.3.1 A permit shall not be issued in excess of these quantities until such time it is confirmed that the facility is classified and constructed in accordance with the building code as the appropriate H-use, control area or is exempt.

Delete the following Sections:
60.4.2.1.2 through 60.4.2.1.12

Delete the following tables:
Tables 60.4.2.1.2 through 60.4.2.1.8 and Table 60.4.2.1.10.1

Replace the following Section:
60.5.1.3.7.1 The person, firm, or corporation responsible for an unauthorized release shall institute and complete all actions necessary to remedy the effects of such unauthorized release, whether sudden or gradual, at no cost to the AHJ, in accordance with MGL 21E, *"Massachusetts Oil and Hazardous Material Release Prevention Act"*.

Add the following Sub-sections:

60.5.1.4.3.2.

(5) Identify Emergency Coordinators who will either be on the premises or on call and available to respond to an emergency within one hour of an emergency situation

(6) Maintain an updated list containing the names, addresses, and the office, home, and/or mobile telephone number(s) of all designated Emergency Coordinators and the times of their availability. If for a particular period more than one individual is listed, the primary Emergency Coordinator shall be identified and others shall be listed in the order in which they will assume responsibility to fulfill the requirements of this role

(7) Maintain and provide to the AHJ, a facility floor plan, not to scale, showing the locations of the hazardous material stored, the typical volumes, location of additional emergency equipment (pads, booms, etc.)

(8) For those facilities covered by Section 60.8 and having either Category 3, Category 4 and Category 5 processes, their Emergency Response Liaison personnel shall communicate to the fire department any concerns and establish a protocol in conjunction with the AHJ on the shutdown of any of the process that would pose a risk to the public in the event of loss of any controls. This protocol shall include a facility liaison to meet with the Incident Commander upon arrival to ensure a safe shutdown if necessary

(9) Notify the AHJ of any material changes to the Emergency Response Plan, including the name of the primary Emergency Coordinator, within 14 calendar days of the change.

Replace with the following Section:

60.5.1.19.1.1 Underground storage tanks are regulated by 310 CMR: *Department of Environmental Protection.*

Replace with the following Section:

60.7 Performance Alternative.

In lieu of complying with Chapter 60 in its entirety, occupancies containing high hazard Level 1 to high hazard Level 5 contents shall be permitted to comply with Chapter 10 of NFPA 400, *Hazardous Materials Code*, subject to an independent review in accordance with 1.15 and a copy, including its recommendations, shall be submitted to the Building Official.

Add the following Sections:

60.8 Hazardous Material Process or Processing.

60.8.1 General. This section shall apply to both new and existing facilities that process hazardous materials.

60.8.1.1 This section shall not apply to the following:

(1) Motor vehicle service stations regulated in accordance with chapter 30;

(2) Construction and maintenance projects regulated in accordance with this *Code*;

(3) Products that are designed pre-mixed in accordance with the manufacturer's instructions or products that are labeled and packaged for sale to the consumer at retail;

(4) The activities of healthcare professional offices or facilities under the supervision of a licensed medical doctor, dentist, or veterinarian;

(5) Retail facilities such as pharmacies, hardware stores, department stores, or restaurants regulated by and in accordance with the provisions of this *Code;*

(6) Refrigeration systems which employ a refrigerant other than ammonia or LPG;

(7) The processing or treatment of potable water and sanitary wastewater

(8) Wastewater treatment operations that are operated by Grades 1I, 1M, 2I, and 2M operators as classified according to 257 CMR 2.00: *Certification of Operators of Wastewater Treatment Facilities*;

(9) The consumption of fuels solely for the purpose of the operation of equipment, such as generators, torches, and consumptive use boilers regulated in accordance with the provisions of this *Code;*

(10) The storage of hazardous materials in atmospheric vessels, if they are maintained below the stored material's normal boiling point without benefit of chilling, refrigeration, or heat;

(11) The processing of hazardous materials and their byproducts which has a hazard ratings of 2 or less, according to criteria of NFPA 704;

(12) Hazardous waste activities regulated and in compliance with the provisions of 310 CMR 30.00: *Hazardous Wastewater*;

(13) Biological and medical activities regulated by the Department of Public Health;

(14) Handling and use of liquid nitrogen cooling systems at atmospheric pressure;

(15) The handling and repackaging of products regulated in accordance with the provisions of this *Code;*

(16) Use of inert gas;

(17) Swimming pools regulated by Department of Public Health under 105 CMR 435: *Minimum Standards for Swimming Pools (State Sanitary Code: Chapter V);*

(18) Air pollution control devices that are a component of a process regulated by Massachusetts Department of Environmental Protection under 310 CMR 7: *Air Pollution Control;*

(19) The production and handling of explosives and fireworks regulated in accordance with hapter 65;

(20) The equipment, process, handling, storage, or use of compounds, liquids, pesticides, fertilizers, or soil treatments regulated in accordance with the provisions of this *Code* or 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters.*

Add the following Section:
60.8.2. Definitions. The following terms and regulatory references shall have the meanings respectively assigned to them for this section:

Add the following terms and definitions:
60.8.2.1 Capacity. The nominal capacity of the vessel as specified by the manufacturer.
60.8.2.2 Category 3 Hazard Evaluation. A written evaluation performed or procedure conducted to identify hazards, including adjacent vessels, that contain hazardous materials, and determine the required preventive, protective, and safety control measures in conformance with recognized and generally accepted good engineering and safe work practices associated with a particular process or condition, and the facility wherein such process or condition is taking place.
60.8.2.3 Category 4 Limited Safety Program. A documented evaluation, policy, or required procedure to ensure compliance with all of the following:

(1) Process information including, but not limited to, MSDS for the chemicals and products being processed, process chemistry, piping and instrumentation diagram, safety relief design, process control safety alarms and interlocks;
(2) Facility suitability including, but not limited to, building code compliance, electrical hazard (Check article 500) classification, ventilation design, fire alarm and fire protection, spill containment and control;
(3) A process hazard safety analysis including, but not limited to, effects in the event of failure, suitable administrative and engineering controls to minimize failure and to control unanticipated releases, and emergency responses to safeguard life and property;
(4) Written procedures, including routine operating and maintenance, as well as precautionary, shut-down and emergency response measures;
(5) A written training program for operating and maintenance personnel and outside contractors whose work or activity may affect process safety;
(6) A written records management protocol which tracks any changes, including but not limited to, changes to chemicals, equipment, operating procedures training program. Such records shall include the date of such change and the name of the manager responsible for such change; and an internal review at a maximum every 3 years.

60.8.2.4 Category 5 Process shall:

(1) Implement and self-certify compliance with 29 CFR 1910.119 “Process Safety Management of Highly Hazardous Chemicals” program or with 40 CFR Part 60 “Chemical Accident Prevention Provisions.”;
(2) Comply with the permitting requirements of Section 60.8.4;
(3) Comply with the requirements of Section 60.5.1.4.3.2;
(4) Maintain hazard evaluation documents and records for review by the AHJ, for a minimum of two years following issuance of a permit.

60.8.2.5 Competent Professional. A person who, based upon education, training, skill, experience or professional licensure or a combination thereof, has a specialized knowledge beyond that of an average person, about risk assessment, process hazard analysis, and/or process safety management principles, for the process or processes being evaluated.
60.8.2.6 Facility. A structure, building or complex of buildings or structures where hazardous materials are processed.
60.8.2.7 Facility Category. Since multiple hazardous material processes may exist within a facility, each facility shall identify all the categories of processes present and verify compliance with all the categories for each process identified at the facility. For purposes of determining facility category classification under Section 60.8, the highest level of actual or possible hazardous process category shall determine the appropriate Facility Category.
60.8.2.8 High-Hazard Group H. High-hazard Group H occupancy includes, among others, the use of a building or structure, or a portion thereof, that involves the manufacturing, processing, generation, or storage of materials that constitute a physical or health hazard in quantities in excess of those allowed in *control areas* complying with the building code.
60.8.2.9 Hazardous Process Category. Hazardous Material processes shall be defined as follows:

(1) Category 1. A process which involves or produces a Hazardous Material which occurs in a vessel with a capacity that is less than or equal to 2.5 gallons.
(2) Category 2. A process which involves or produces a Hazardous Material which occurs in a vessel with capacity that is greater than 2.5 gallons but less than or equal to 60 gallons.
(3) Category 3. A process which involves or produces a Hazardous Material which occurs in a vessel that is greater than 60 gallons but is less than or equal to 300 gallons that contains a hazardous material that is processed or a process area that is classified as being a H Occupancy as defined by building code.
(4) Category 4. A process which involves or produces a Hazardous Material which occurs in a vessel with a capacity that is greater than 300 gallons and is not considered a Category 5 Process.
(5) Category 5. A process which involves or produces Hazardous Material which occurs in a vessel with a capacity that is equal or in excess of threshold quantities stated in 29 CFR 1910.119 or 40 CFR Part 68 and regulated by such standard.

60.8.2.10 Incident. An unplanned event arising from a hazardous material process resulting in a fire, explosion, reportable release, or injury.

60.8.2.11 Mixture. A combination of materials in a vessel. The mixture shall be considered a different material from those before being added to the vessel, regardless of whether a reaction or change of state occurred in the vessel, and regardless of whether the mixture is homogeneous or heterogeneous. Material hazards of the mixture shall be classified based on the hazards of the mixture as a whole, in accordance with nationally recognized reference standards, by an approved qualified organization, individual, or Material Safety Data Sheets (MSDS), or by other approved methods.
60.8.2.12 Person. An individual, firm, corporation, company, partnership, association, including any officer, trustee, assignee, receiver, personal representative, designee, manager or employee thereof.
60.8.2.13 Vessel. The container in which partial or the actual process takes place. Examples of vessels are beakers, pails, tanks, reactor kettles, pipe reactors, and drums. The size of a vessel is its capacity.

Add the following Section:
60.8.3 Multiple Processes. Since multiple hazardous material processes may exist within a facility, each facility shall identify all the categories of processes present and verify compliance with all the categories for each process identified at the facility. For purposes of determining category classification under this *Code*, the actual or possible Hazardous Processing activity shall determine the appropriate Category.

Add the following Sections:
60.8.4 Permits. Permits, where required, shall comply with Section 1.12 and 60.8.4.1 through 60.8.4.4.
60.8.4.1 No person shall engage in the Process or Processing of any Hazardous Material at any Facility identified in Section 60.8 as Category 2 through Category 5 unless said Facility is in compliance with the permit requirements of the provisions of this *Code*. A permit holder shall apply for the renewal of said permit on an annual basis. The application shall contain such information and be in a form as prescribed by the State Fire Marshal.
60.8.4.2 An applicant for the permit required by section 1.12 shall submit an application for Permit to Process Hazardous Material to the Head of the Fire Department on a form prescribed by the State Fire Marshal.
60.8.4.3 As provided in MGL 148 § 10A, the AHJ may deny or withhold the issuance of a permit however, such denial or withholding shall be in writing. Said notice of denial shall contain specifications of the alleged violation or deficiency together with their interpretation of Section 60.8. The AHJ may require technical assistance in accordance with 1.15 to evaluate the adequacy of Category 3 or Category 4 process safety conditions, programs, procedures, and practices undertaken at the facility but only after a notice of denial has been properly served upon the person making application.
60.8.4.4 Any person who has been permitted to engage in the Process or Processing of Hazardous Material at any Facility or any person creating a new process facility, shall, prior to engaging in any new or modified hazardous material process activity which results in a change to the highest process category authorized by the current permit, notify the Head of the Fire Department of such new change or modification and submit a new application to appropriately modify the existing permit.

Add the following Sections:
60.8.5 Compliance Requirements.
60.8.5.1 Facilities operating hazardous material processes as defined by this *Code* shall maintain, for each process in their facility, the following documents and procedures at their facility for periodic inspection and review by the Head of the Fire Department to remain in compliance with this Section.

Add the following Sections:
60.8.6 Post-Incident Analysis.
60.8.6.1 Post-incident analysis shall be applicable to Category 3 and Category 4 processes. For a Category 5 process, a copy of the report submitted in accordance with the OSHA or EPA Risk Management Standard, shall be considered acceptable.
60.8.6.1.1 In the event of an incident involving a process in which there is fire department, EMS response, or a notification of unauthorized release, a written post incident analysis must be initiated within 48 hours. Upon completion of the analysis, the AHJ shall be given a duplicate copy of the analysis.
60.8.6.1.2 A completed post-incident written analysis report shall be completed within 45 days, unless an extension is provided by the AHJ for just reason.
60.8.6.1.3 The post-incident analysis report shall provide the following information:
- **(1)** A summary of the cause of the incident and contributing factors;
- **(2)** Recommendations to prevent a future recurrence;
- **(3)** A summary of the dates of implementation of the post-incident analysis recommendations and corrective actions;
- **(4)** A reassessment and confirmation of the category under which the facility is operating or application for a new permit as part of the report.

Add the following Sections:
60.8.7 Trade Secrets.
A facility owner or operator subject to this *Code* and required to submit to the AHJ a permit application and/or supporting documents may claim information as a trade secret as provided in this Section.

60.8.7.1 A facility owner/operator may withhold the name of a specific hazardous material when notifying the fire department under Section 60.8 if that chemical is claimed as a trade secret or confidential business information.
60.8.7.2 If the hazardous material is claimed as a trade secret:
(1) The generic class or category that is structurally descriptive of the chemical must be provided on the permit application as a matter of public record;
(2) The Material Safety Data Sheet (MSDS) for the hazardous substance shall be available for review on-site by representatives of the Fire Department or the State Fire Marshal.
60.8.7.3 A facility owner or operator may claim information, required under this *Code*, is treated as confidential and not as a matter of public record if:
(1) The information has not been disclosed to anyone else, other than employees of the facility or the AHJ, an officer or employee of the United States or a state or local government, or anyone who is bound by a confidentiality agreement;
(2) The facility has taken reasonable measures to protect the confidentiality of such information and intends to continue to take such measures;
(3) The information is not required to be disclosed, or otherwise made available to the public under any other federal or state law; and
(4) Disclosure of the information may cause substantial harm to the competitive position of the facility;
(5) All documentation and records claimed as trade secret or confidential information, including but not limited to the "Permit to Process Hazardous Material Application," "hazard evaluation documentation," "process safety program documentation," shall be clearly marked as "Trade Secret," "Confidential," or other words of similar meaning.

Chapter 65 Explosives, Fireworks, and Model Rocketry
Modify this Chapter by adding, modifying, deleting and replacing or replacing the following in Chapter 65 as provided below:

Delete and replace the title as follows:
Explosives, Fireworks, Model Rocketry, Cannons, and Mortars.

Add the following Section:
65.1.3 Certificates. Certificates, where required, shall comply with Section 1.13.

Add the following terms and definitions:
65.1.4 A barrier as used in Chapter 65 is an object or structure, such as, but not limited to, a fence with warning sign, or tape, that prohibits or restricts passage or travel.
65.1.4.1 ***Natural Barrier.*** A restrictive terrain, or body of water, that in itself, will assist in restricting the display area at a fireworks show without the need for an additional barrier to be erected. Natural barriers must be approved by the State Fire Marshal in advance of a show.
65.1.4.2 ***Physical Barrier.*** A structure of substantial strength that is uniformly supported and provides an uninterrupted barrier both vertically and horizontally that consists of a height no less than 40 inches including, but not limited to, snow fencing or its equivalent.

Replace with the following Section:
65.2.1 The construction, handling, and use of fireworks intended solely for outdoor display as well as the general conduct and operation of the display, shall comply with the requirements of NFPA 1123, *Code for Fireworks Display*, including appendix A, D and E.

Add the following Sections:
65.2.4 Delivery of Fireworks.
65.2.4.1 Delivery of fireworks shall be made only to authorized persons who are in possession of a valid Certificate of Competency (Fireworks Display) and a Permit to Display Fireworks (Supervised Display of Fireworks).
65.2.4.2 As soon as the fireworks have been delivered to a display site, they shall not be left unattended, and they shall be kept dry.
65.2.4.3 Upon delivery of the fireworks to the display site, members of the public, the audience, spectators, and other persons not otherwise authorized by the AHJ, shall be kept at a distance not less than those specified in NFPA 1123, *Table 5.1.3.1: Distances for Outdoor Aerial Shell Display Sites: Minimum Separation Distances from Mortars to Spectators for Land or Water Displays.*
65.2.4.3.1 Where it is impractical to locate the delivery vehicle within the perimeter of the display site the vehicle shall be parked and secured. The minimum secured radius from any point of transfer of fireworks from the vehicle to the display site shall be 150 feet. Audience members, spectators and the general public shall not be allowed within this area.

Add the following Sections:
65.2.5 Requirements for Display Fireworks.
65.2.5.1 The audience at a supervised display of fireworks shall be restrained behind a physical or natural barrier. Such barrier shall clearly define the restricted display site. This restricted area shall be defined based

on the minimum separation distances specified by NFPA 1123, *Table 5.1.3.1: Distances for Outdoor Aerial Shell Display Sites: Minimum Separation Distances from Mortars to Spectators for Land or Water Displays.*

65.2.5.2 The operator shall have available for use at all times a portable anemometer or similar device for measuring wind velocity. Any supervised display of fireworks shall be stopped immediately in the event that upper level wind conditions cause the fall out area to change and pose a threat to public safety or property. A test shot shall be provided to check for high level winds at the request of the AHJ. High winds as used in this section are when the wind velocity exceeds 20 miles per hour at ground level.

Add the following Sections:

65.2.6 Nighttime Fireworks. Where fireworks are displayed at night, a thorough search of the display site shall be made immediately after the display and at first light the following morning by the competent operator.

65.2.6.1 The competent operator, who conducted the display, shall perform the post display and the first light search to ensure recovery of all unexploded shells. If the competent operator is unavailable due to unforeseen circumstances such as illness or injury, a substitute competent operator, upon approval of the AHJ, may conduct the aforementioned searches. A thorough search shall include, but not be limited to, :

- **(1)** A Search as described above;
- **(2)** Completed form prescribed by the State Fire Marshal that indicates the start and stop time of the search; and
- **(3)** Acknowledgement by the operator and Head of the Fire Department or his/her designee that they have completed the requirements of this section.

Add the following Section:

65.2.7 Fire Department Coordination. The sponsor shall be responsible for the detailing of one or more members of the fire department as may be required by the Head of the Fire Department. They should be on duty from the time the fireworks are delivered to the site until the termination of the display and removal of all fireworks and debris from the site and in compliance with 65.2.6.

Add the following Section:

65.2.8 No fireworks display shall include mortars or shells in excess of 12 inches in diameter, unless the certificate holder shall have obtained prior written approval from the State Fire Marshal.

Add the following Section:

65.2.9 Multiple shot mortar devices using mortars less than three inches in diameter including, but not limited to cakes, and repeaters, shall be buried 7/8 of their length in a trench, mortar trough, or sturdy drum filled with clean sand or substantial wooden boxes. The Head of the Fire Department may allow for an equivalent alternative, such as sandbags or racks constructed with material similar to mortar rack construction, provided the same degree of protection is provided.

Add the following Section:

65.2.10 The use of aluminum mortars is prohibited.

Add the following section:

65.2.11 All supervised displays of fireworks shall be electrically fired. Mortars shall not be reloaded.

Add the following Section:

65.2.12 All electrical firing units shall display a decal issued by the State Fire Marshal for a term determined by the State Fire Marshal. The panel shall contain a key operated safety switch which controls the overall power and functionality of the firing unit.

Add the following Section:

65.2.13 The unit shall be operated in accordance with the manufacturer's instructions. All electrical firing units, and any associated devices, wiring, or connections shall be adequately maintained.

Add the following Section:

65.2.14 Parallel racks or rows of racks shall be separated by a minimum distance not less than twice the inside diameter of the largest mortar in an adjacent rack.

Add the following Section:

65.3.4 The use of pyrotechnic special effects indoors is prohibited in nightclubs, discotheques, dance halls, bars, or similar occupancies (defined as A-2 or A-3 by the building code).

Add the following Section:

65.3.5 The use of pyrotechnic special effects indoor in entertainment venues (defined as A-3 by the building code) and theatres (defined as A-1 by the building code) shall be permitted provided the facility is protected with automatic sprinklers. The installation of the sprinklers shall be to the extent as required by law or regulation.

Add the following Section:
65.3.6 Approval of the use of pyrotechnic special effects shall be subject to such terms and conditions as the Head of the Fire Department may require.

Add the following Section:
65.3.7 No bombs, salutes, roman candles, skyrockets, firecrackers, torpedoes, or similar pyrotechnic shall be used before a proximate audience unless specifically approved in writing by the State Fire Marshal.

Add the following Section:
65.3.8 The theatre, auditorium, or similar facility shall certify that the proscenium protection is in compliance with the building code.

Add the following Section:
65.3.9 Electrical firing panels shall comply with 65.2.12 and 65.2.13. A performer shall not be required to comply with 65.2.12, if firing a single special effect.

Add the following Section:
65.4.1.1 The use of flame effects indoors is prohibited in nightclubs, discotheques, dance halls, bars, or similar occupancies. The use of flame effects indoors, in entertainment venues (defined as A-3 by the building code) and theatres (defined as A-1 by the building code), shall be permitted provided the facility is protected with automatic sprinklers. The installation of the sprinklers shall be to the extent as required by law or regulation.

Replace with the following Section:
65.5.1 The manufacture, transportation, or storage of fireworks shall comply with NFPA 1124 Chapters 1-5 and Chapters 8. Chapters 6 and 7 are deleted.

Add the following Section:
65.5.1.3 No person shall manufacture fireworks except in accordance with this *Code*. The manufacture of any fireworks, as defined in this *Code*, shall be prohibited unless it is authorized by federal license or permit, and a license issued by the local licensing authority and a permit issued by the State Fire Marshal.

Add the following Section:
65.6.1 Permit. Permits, where required, shall comply with section 1.12.

Delete the following Section:
65.7.2

Replace the following Section:
65.9.1 The manufacture, transportation, storage, sale, and use of explosive materials shall comply with NFPA 495, *Explosive Materials Code, including appendix A, C, D and E,* and NFPA 498, *Standard for Safe Havens and Interchange Lots for Vehicles Transporting Explosives*.

Add the following Section:
65.9.1.1 All magazines containing explosive materials shall be opened and inspected at maximum intervals of 7 days to determine whether there has been unauthorized or attempted entry into the magazines or whether there has been unauthorized removal of the magazines or their contents.

Add the following Section:
65.9.1.2 Unless otherwise expressly stated, the following terms, for the purposes of this section shall have the following meanings:

Add the following terms and definitions:
65.9.1.2.1 Blasting Mat. A mat of woven steel wire, rope, scrap tires, or other suitable material, earth fill or construction to cover blast holes, for the purpose of preventing flyrock.
65.9.1.2.2 Blasting Operation. Any person engaged in the conduct of blasting under the terms of a contract or otherwise.
65.9.1.2.3 Boosters. An explosive charge, usually of high detonation velocity and detonation pressure, designed to be used in the explosive initiation sequence between an initiator and the main charge.
65.9.1.2.4 Burden. The distance from the borehole and the nearest free face, or the distance between boreholes measured perpendicular to the spacing.
65.9.1.2.5 Electric Squib. Small tubes or blocks containing a small quantity of ignition compound in contact with a wire bridge.
65.9.1.2.6 Safety Fuse. A flexible cord containing an internal burning medium by which fire is conveyed at a continuous and uniform rate for the purpose of firing blasting caps or explosive charge.

65.9.1.2.7 Special Industrial Explosives Device. Shaped materials, sheet forms, and various other extrusions, pellets, and packages of high explosives used for high-energy-rate forming, expanding, and shaping in metal fabrication and for dismemberments and reduction of scrap metal. The high explosives used include dynamite, trinitrotoluene (TNT), PETN, and cyclotrimethylenetrinitramine (RDX). Special industrial explosive material shall also include explosive materials used exclusively for research and development, including but not limited to explosive detection and explosive safety.
65.9.1.2.8 Spacing. The distance between boreholes in bench blasting. The distance is measured parallel to the free face and perpendicular to the burden.
65.9.1.2.9 Stemming. A suitable inert non-combustible material including, but not limited to clean fine clay, sand, or crushed rock or a device used to confine or separate explosives in a drill hole. The use of leaves or trash is prohibited.
65.9.1.2.10 Way. Any public highway, private way laid out under authority of statute, way dedicated to public use, or way under the control of park commissioners or body having like power.

Add the following Section:
65.9.3 In addition to the fire resistant provisions in Section 3.3.44.1* of NFPA 495, exterior walls of magazines constructed of wood, may meet fire resistance equivalency provided by sheet metal of not less than 26 gauge.

Add the following Section:
65.9.4 Storage of Explosives on Water.
65.9.4.1 No person shall store any explosives on the waters of the Commonwealth unless a permit for such storage has been secured from the State Fire Marshal, and unless the explosives are stored in accordance with the following requirements:

- **(1)** Such explosives shall be stored in a magazine located on a boat or vessel used exclusively for the purpose, and such boat or vessel shall be securely moored or anchored according to the direction of the harbor master. The storage magazines shall be subject to the requirements of Chapter 65;
- **(2)** No detonators shall be stored or transported on a boat or vessel on which any explosives are kept or stored, except in accordance with the applicable provisions of Chapter 65;
- **(3)** No explosives shall be delivered or removed from a boat or vessel during foggy weather;
- **(4)** In the loading or unloading of any explosive, care shall be taken in the handling of same and it shall be so placed or stowed as to prevent displacement during transit;
- **(5)** No explosives shall be carried or transported on the waters of the Commonwealth on any vessel which is carrying passengers;
- **(6)** Any vessel containing explosives in transit on any of the waters of the Commonwealth shall display on a suitable staff an international Code Flag B (a red flag) readily discernible from a distance of not less than 1,000 feet by day and which shall be properly illuminated at night;
- **(7)** No smoking shall be allowed on any vessel containing explosives;
- **(8)** All such boats and vessels shall display the word "EXPLOSIVES" in a conspicuous manner so that it may be seen by day from all sides at a distance of not less than 200 feet, and shall be properly illuminated at night.

Add the following Sections:
65.9.5 The requirements of 65.9 shall be in addition to applicable U.S. Department of Transportation (U.S. Coast Guard) Regulations, 33 CFR 126, and 46 CFR 194.
65.9.5.1 Magazine Alteration. No alteration changing the constructed storage capacity of a magazine shall be made without notifying the State Fire Marshal and the Head of the Fire Department in writing and then receiving written acknowledgment of receipt of the notification from the State Fire Marshal and the Head of the Fire Department.
65.9.5.2 Equivalent Alternate Construction Standards. Alternate storage facilities for explosive materials may be approved by the State Fire Marshal when it is shown that such alternate facilities are or will be constructed in a manner substantially equivalent to the standards of construction contained in Chapter 65 and such construction has been approved by 27 CFR 201(b).
65.9.5.3 Magazines shall be sequentially numbered by a minimum of two inch block numbers plainly visible on the outside. This number shall correspond to those drawn on a storage facility site diagram, drawn to scale, clearly indicating the separation distances between magazines, inhabited buildings, railways, highways, and other magazines.
65.9.5.4 The owner shall plainly post on the interior side of the magazine door the current Table of Distance storage capacity.
65.9.5.5 Each magazine shall at all times be under the control of a competent person. This shall mean that any penetration of the magazine or magazine area shall be protected by the continuous surveillance of an individual or by an electronic sensing device which shall upon such penetration notify either the police or fire department, as the Head of the Fire Department may direct.

Add the following Sections:
65.9.6 Storage of Explosives: Operational Procedure Manual: A Magazine Facility Operational Procedure Manual shall be maintained on the storage facility which shall include the following: facility

emergency policy and procedures, administrative and emergency notification procedures, scaled plot plan of the storage facility site, showing magazines, inhabited buildings railways and highways within 2,000 feet of the closest magazine, Explosive Material Manufacturers Safety Data Sheets (MSDS) for all explosive materials and SARA Title III Hazardous Materials on the site. This manual shall be kept current and a copy provided upon request to the Head of the Fire Department and the State Fire Marshal or their designees.
69.9.6.1 A magazine facility containing 10,000 or less pounds of explosive materials shall be exempt from this requirement.
65.9.6.2 Vehicles carrying explosive materials may be left unattended if parked in an area complying with NFPA 498 and is authorized by the AHJ through the granting of a permit.
65.9.6.3 Delivery of explosives shall only be made to persons displaying proper permits and licenses and shall be delivered into magazines or temporary storage or handling areas as authorized by this *Code*. No person shall deliver explosive materials to any magazine, building or structure that is not permitted by the State Fire Marshal. Any person who delivers explosive materials shall keep a record of the delivery transaction. The record shall contain the permit number assigned by the State Fire Marshal to the magazine, building or structure where said materials are to be stored.

Add the following Sections:
65.9.7 Underground Transportation of Explosives.
65.9.7.1 All explosive materials in transit underground shall be taken to the place of use or storage without delay. The quantity of explosive material taken to an underground loading area shall not exceed the amount estimated by the blaster in charge to be necessary for the blast.
65.9.7.2 Vehicles used for the transportation of explosive material underground shall have the electrical system checked weekly to detect any failures which may constitute an electrical hazard.
65.9.7.3 A certification record shall be kept which includes the date of the inspection, the signature of the person who performed the inspection, and a serial number, or other identifier, of the vehicle inspected.
65.9.7.4 The installation of auxiliary lights on vehicle beds which are powered by the truck's electrical system shall be prohibited.
65.9.7.5 Explosive materials shall be hoisted, lowered, or conveyed in a powder car under the following conditions:

(1) The hoist operator shall be notified before explosives or blasting agents are transported in a shaft conveyance.
(2) No other materials, supplies, or equipment shall be transported in the same conveyance at the same time.
(3) No one except the operator, his helper, and the powder man shall ride on this powder car.
(4) No explosive material shall be transported on any locomotive. At least two car lengths shall separate the locomotive from the powder car.
(5) No explosive materials shall be transported on a man haul.
(6) Compartments for transporting detonators and explosives in the same car or conveyance shall be physically separated by a distance of 24 inches or by a solid partition of at least six inches.
(7) All blast holes shall be stemmed to the collar and provide sufficient confinement of the charge to minimize the chance of injury to personnel from flying material.

Add the following Sections:
65.9.8 Blast Analysis. Before conducting a blast, the blaster shall conduct a blast analysis of the overall factors affecting the blasting operations. This analysis shall consider; adjacent area structure(s), building(s), building foundations, utilities, including gas and water supply lines, septic systems and swimming pools, and area geology within 250 feet of the center of the blast site and the identification of commercial equipment such as computers, electron microscopes, laser equipment, relays etc., which are sensitive to vibrations, and other underground objects that might be damaged by the effects of a blast.
65.9.8.1 A blast analysis shall be compared to the blast design plan to establish a sound relationship between the blast design and the effects of blasting upon the neighborhood within the blast area. The blast analysis shall contain a discussion of plan factors to be used which protect the public and meet the applicable airblast, flyrock, and ground vibration standards.
65.9.8.2 The area of the blast analysis shall be within 250 feet from the closest borehole.
65.9.8.3 Blast Plan. When blasting is done in a congested area or within 250 feet of a building, structure, railway, or highway, or any other installation that may be affected, precautions shall be taken by the blaster in the design of the blast plan to prevent damage and to minimize adverse effects including ground vibrations, air blast and flyrock.
65.9.8.3.1 Such precautions shall include but not be limited to, review of each shot variable or dimension to ensure a blast design plan which establishes sound relationships between current industry standards and the allowable limits of the effects of blasting.
65.9.8.3.2 A blast design plan shall describe as a minimum, the amount of material to be removed, benches and lifts, sketches of proposed drill patterns, spacings, free face, borehole size, depth, and angle, stemming, decking, weight of explosive material per delay, delay periods, initiation techniques, the amount of explosive material to be used, critical dimensions, location and descriptions of building(s) and structure(s) to be protected, their number, and the placement of seismographs.
65.9.8.3.3 All shots shall be designed using the most current industry standards, to prevent excessive air blast, ground vibration, and flyrock.

65.9.8.4 Blasting Precautions. Blasting mats shall be required if the material to be blasted lies within 100 feet of a highway, an inhabited building or structure not under the control of the project. A blaster authorized to prepare explosive charges or to conduct blasting operations shall use every reasonable precaution, including but not limited to warning signals, flags, barricades, or other equally effective means to ensure the safety of the general public and workers.

65.9.8.4.1 A code of blasting signals shall be posted on one or more conspicuous places at the operation. All employees shall be required to familiarize themselves with this *Code*. The code shall be:

(1) WARNING SIGNAL: Three long blasts five minutes prior to blast signal.
(2) BLAST SIGNAL: Two blasts one minute prior to the shot.
(3) ALL CLEAR SIGNAL: A prolonged blast following the inspection of the blast area.

65.9.8.4.2 Blast signals shall be clearly audible for a distance of 250 feet of the blast site.

65.9.8.4.3 No person shall fire a blast in any blasting operation on Sunday or between the hours of sunset and sunrise unless otherwise authorized in writing by the State Fire Marshal or the Head of the Fire Department, but in any case the authority of the State Fire Marshal shall prevail.

Add the following Section:

65.9.9 No blast shall be fired until the blaster-in-charge has made certain that all surplus explosive materials are in a safe place, all persons and equipment are outside the blast area, or under sufficient cover, and an adequate warning signal has been given.

Add the following Section:

65.9.10 No blast shall be fired without a positive signal from the blaster-in-charge and only the blaster-in-charge shall fire the blast.

Add the following Section:

65.9.12 Whenever quarry blasting is conducted within 500 feet of building(s) used for human habitation a series of durable warning signs shall be erected along the entire perimeter of any rock face more than six feet high. They shall be spaced not more than 75 feet apart and set back a reasonable distance from the face. Each sign shall contain the words "WARNING - BLASTING AREA - DANGER" in letters at least two inches in height.

Add the following Section:

65.9.13 Alternative Allowable Vibration Levels. Alternative limits of the effect of blasting may be adopted for quarry operations located adjacent to inner city areas as a local municipal regulation adopted in accordance with Massachusetts General Law (M.G.L.) c. 148, § 9.

Add the following Sections:

65.9.14 Blaster's Log.

65.9.14.1 A blaster who performs blasting operations shall maintain a blaster's log on a form approved by the State Fire Marshal recording each blast. The blaster's log shall be completed within six hours of a blast and retained for a minimum of three years from the date of the blast. Blasters' logs shall be made readily available to the State Fire Marshal, the Head of the Fire Department or their designees. The blaster's log shall contain:

(1) Name, signature, and Certificate of Competency Number of the blaster in charge
(2) Blast location, address, city, description
(3) Date and time of blast
(4) Type of material blasted
(5) Distance, in feet, to the nearest inhabited building or structure, neither owned or leased by holder or holder client of the Explosives User Certificate
(6) Scaled distance or alternative option used to determine blast design
(7) Type of matting or cover over blast if applicable
(8) Weather conditions, including temperature, cloud cover, wind direction
(9) Blast plan and sketch showing blast hole diameter, delay, delay pattern and types of detonators, spacing, depth of blast hole, hole pattern, and number of holes
(10) Explosive material type, size, total weights of each explosive by hole
(11) Type of initiation system (methods of firing and type of circuit)
(12) Feet of over burden, depth, and type of stemming
(13) Maximum charge per delay
(14) The seismograph(s) location(s), including distance and direction from the seismograph to the closest borehole, and from the seismograph to the closest structure
(15) Seismograph readings, including peak particle velocity, frequency, and airblast
(16) Type of seismograph, instrument make, model serial number, calibration date, and sensitivity settings
(17) Name of person taking the seismograph reading. The name and firm analyzing the seismograph record if applicable
(18) Complaints or comments following the blast.

65.9.14.2 Blasts that exceed the maximum allowable peak particle velocity frequency or decibel levels established by Chapter 65 or are known by the blaster in charge to have produced flyrock, shall be reported to the Head of the Fire Department within 24 hours and a written report shall be provided within five days.

65.9.14.3 Seismic instruments shall be capable of reading and recording the acceptable level limits specified in this section and shall be maintained and calibrated in accordance with the instructions of the instrument manufacturer.
65.9.14.4 Seismograph Placement. The seismograph shall be placed at the nearest inhabited building or structure adjacent to the blast area that is not owned, leased, or controlled by the blasting operation. The seismograph shall also be placed on or in the ground on the side of the structure directly facing the blast site and shall be placed within ten feet of the structure or less than 10% of the distance from the blast, whichever is less. If there is no suitable location for seismograph placement within ten feet of the structure that is mutually agreed upon by the blaster and the Head of the Fire Department or his designee, the condition which made it unsuitable to place to seismograph within ten feet of the structure and the alternative location agreed upon by the Head of the Fire Department or his designee shall be noted, in writing, in the blast plan.
65.9.14.4.1 If the person in control of said nearest structure refuses to grant permission for seismograph placement as required by this *Code*, the Head of the Fire Department shall be immediately notified. Such refusal shall be further documented in writing by the blaster and be placed in the blasting record. Placement of the seismograph shall then be at a location mutually agreed upon by the blaster and the Head of the Fire Department or his designee.
65.9.14.4.2 In the case of underground pipelines, bridges, roadways, steel construction, and other heavy construction, where prescribed vibration or airblast levels would be overly restrictive in relation to the nature of the project, vibrations and airblast levels in excess of the tables listed above shall be allowable when authorized in writing by the owner or representative of the owner of adjacent inhabited building(s) or structure(s) within the blast area.
65.9.14.4.3 Seismograph monitoring shall be required for all blasting operations.

Add the following Sections:
65.9.15 Pre-blast Inspection Surveys.
65.9.15.1 The intent of a pre-blast survey is to provide documentation of the existing physical condition of buildings and structures within the blasting area with the dimensions of each observed defect clearly noted. When blasting within 250 feet of a structure, as measured from the closest borehole to the structure, or structures, not owned or controlled by the project, a pre-blast inspection survey shall be offered. It shall be the responsibility of the blaster to notify structure owners of the survey.
65.9.15.1.1 Surveys in excess of the above may be conducted at the discretion of the blaster . If the owner or occupant request surveys in excess of the above, the cost of the survey(s) shall be paid by the owner or occupant of the structure.
65.9.15.1.1.1 The pre-blast survey shall document the existing visual conditions of the interior and exterior of the structure including improvements to the property and other physical factors that could reasonably be affected by the blasting. Structures such as pipelines, cables, transmission lines, cisterns, wells, and other water systems warrant special attention; however the assessment of these structures may be limited to surface conditions and other readily available data.
65.9.15.1.1.2 The survey shall accurately record deficiencies by means of written notes, sketches, photographs, video tape, cassette tape narrative, or any other format or combination that sufficiently depicts the pre-existing conditions prior to the blasting.
65.9.15.1.1.3 If the owner refuses the survey the inspector shall request that he sign a waiver of the survey. A pre-blast survey waiver shall be made on a form approved by the State Fire Marshal. If the owner or occupant refuses to sign a waiver, the inspector shall sign the waiver attesting to the refusal.
65.9.15.1.1.4 Three attempts shall be made to contact the owner to offer the survey. If no response is made after the second attempt, or the owner refuses to sign a survey waiver, a notice offering the survey shall be sent via any carrier capable of providing a receipt of delivery. A receipt of delivery shall satisfy this requirement.
65.9.15.1.2 Surveys shall be conducted by technicians familiar with construction methods and materials, familiar with blasting procedures, and this *Code*.
65.9.15.1.3 When a blast inspection is made, the results of that inspection may only be made available to the Head of the Fire Department, the State Fire Marshal or their designees upon request with the written consent of the occupant of the structure. The blast inspection shall be made available to the owner of the inspected property within a reasonable time after request is made in writing. Failure to provide a blast inspection report within 30 days of such request shall be grounds for revocation of a Use and Handling Permit.

Add the following Sections:
65.9.16 Underwater Blasting.
65.9.16.1 Loading of tubes and casings of dissimilar metals shall not be used because of possible transient electric currents from galvanic action of the metals and water.
65.9.16.2 Only water resistant blasting caps and detonating cords shall be used for all marine blasting. Loading shall be done through a non-sparking metal loading tube when a tube is necessary.
65.9.16.3 No blast shall be fired while any vessel under way is closer than 1,500 feet from the blast area. Those on board vessels or craft moored or anchored within 1,500 feet shall be notified before a blast is fired.
65.9.16.4 No blast shall be fired while any swimming or diving operations are in progress in the vicinity of the blasting area. If such operations are in progress, signals and arrangements shall be agreed upon to assure that no blast shall be fired while any person is in the water.

65.9.16.5 A red blasting flag, 18 inches by 30 inches with the word "EXPLOSIVES" thereon in white letters, at least six inches in height, shall readily be visible in all directions.
65.9.16.6 The storage of explosive material shall be in accordance with Chapter 65.
65.9.16.7 When more than one charge is placed under water, a float device shall be attached to an element of each charge in such a manner that it will be released by firing.

Add the following Section:
65.9.17 Charge Activated Device. The use of charge activated hydraulic devices shall comply with the following:

(1) Use and Handling Permits shall be obtained as required in Section 1.12.
(2) They shall be exempt from the following, blast analysis and the use of a seismograph. However, the blast design plan is required.
(3) A blaster's log shall be maintained.
(4) Matting of sufficient size and strength shall be utilized during all detonations.
(5) All holes must be drilled to the manufacturer's specifications and no hole shall be re-drilled.

Add the following Sections:
65.9.18 Blasting Regulatory Review.
65.9.18.1 Any person or firm alleging damage as a result of blasting operations shall make a complaint on a "Blasting Regulatory Review" form approved by the State Fire Marshal and obtained from the fire department of the city or town where damage occurred. The Blasting Regulatory Review Form shall contain a signed certification. Completed forms shall be returned within 30 days of the blasting incident to the Head of the Fire Department.
65.9.18.2 The Head of the Fire Department upon receiving a Blasting Regulatory Review Form shall cause the holder of the "Explosives Users Certificate" and the blaster in charge, to report to the fire department with copies of pertinent blasters' logs for the dates in question and to provide copies of the blaster's log for the dates alleged. The blaster in charge shall be interviewed and blast logs examined to determine any violations of this *Code*. The fire department authority shall record the results of his inquiry on the Blasting Regulatory Review Form.
65.9.18.3 The Head of the Fire Department shall retain the original of the Blasting Regulatory Review Form and forward a copy to the State Fire Marshal's Office.
65.9.18.4 The holder of the Explosives Users Certificate shall receive a copy of the complaint form and acknowledge receipt by signature and date in the space provided on the complaint form.
65.9.18.5 The holder of the Explosives Users Certificate or the holder's insurance carrier shall respond to the claimant within 30 days after the date that the holder received the complaint form.

Add the following Sections:
65.9.19 Explosive Manufacturing.
65.9.19.1 All explosives manufactories shall be supplied with some means of direct communication with the Head of the Fire Department, such as radio, telephone or fire alarm boxes, for immediate notice in case of fire.
65.9.19.2 There shall be a competent watchman on guard at all explosive manufactories except when the same are in actual operation.
65.9.19.3 No dry vegetation or combustible rubbish shall be allowed to accumulate within 50 feet of any building connected with such manufactories.
65.9.19.4 Persons under the age of 18 years shall not be employed in an explosive manufactory and shall not be permitted to enter such manufactory unless accompanied at all times by a responsible adult person.

Add the following Sections:
65.9.20 Explosives Transaction Records.
65.9.20.1 All persons keeping, storing, using, selling, manufacturing, handling, or transporting explosive material shall maintain records so that the quantity and location of such explosive materials are readily available for inspection by the Head of the Fire Department, the State Fire Marshal, their designees, or a police officer. Quantity and location records shall be delivered to the State Fire Marshal forthwith upon demand.
65.9.20.2 Daily Summary of Magazine Transactions: In taking the inventory required by Chapter 65, a licensee or permitee shall enter the inventory in a record of daily transactions which shall be kept for each magazine on a storage facility. These records may be kept at one central location on the business premises if separate records of daily transactions are kept for each magazine. Not later than the close of the next business day, each licensee or permitee shall record by the manufacturer's name or brand name, the total quantity received in and removed from each magazine during the day, and the total quantity remaining on hand at the end of the day. Any discrepancy which might indicate a theft or loss of explosive materials shall be reported to the State Fire Marshal immediately.

Add the following Section:
65.9.21 Discontinuance of Business. Where an explosive materials business or operation is discontinued or succeeded by a new licensee or registrant, the records prescribed by Chapter 65 shall appropriately reflect such facts and shall be delivered to the successor. Where discontinuance of the business or operation is

absolute, copies of the records required shall be delivered to the State Fire Marshal within 30 days following the business or operation discontinuance.

Add the following Section:
65.9.22 Any person who transports or delivers explosive materials to any magazine, building or structure shall keep a record of the permit number assigned to said magazine, building, or structure by the State Fire Marshal in accordance with Chapter 65.

Add the following Section:
65.9.23 Theft. The loss or theft of any explosives shall be immediately reported to the State Fire Marshal and confirmed in writing within 24 hours.

Add the following Section:
65.9.24 The State Fire Marshal or his designee may, in his discretion, upon discovering a violation of this *Code* or upon determination of a fire or explosion hazard, require the removal of any explosive material or that a watchman be placed continuously in charge of it. The expense of said removal or watchman shall be the responsibility of the person in whose possession the explosive material is found.

Add the following Section:
65.9.25 Any explosion, fire, or collision occurring in connection with the keeping, storage, manufacture, sale, transportation or use of explosive material causing loss of life or injury to any person or damage to property shall be reported immediately to the State Fire Marshal and the Head of the Fire Department, giving an account of the same, and then confirmed giving a detailed account in writing within 24 hours.

Add the following Section:
65.9.26 Any person, firm, or corporation in the Commonwealth who keeps, uses, sells, transports, or stores any explosive shall keep a record of the disposition of such explosive by recording the batch number, if any, from the case from which individual explosive has been removed, if sold in less than case lots, or the number of cases with their batch numbers if sold in case lots. The person to whom such explosive has been transferred shall record the transaction and such records shall be maintained for ready inspection by the State Fire Marshal, the Head of the Fire Department, or the Head of the Police Department, or their designees, for a period of three years.

Add the following Section:
65.9.27 Laboratories: industrial laboratories, laboratories of technical institutes, colleges, universities, and similar institutions may be permitted to keep, store, and use explosives or blasting agents when confined to the purpose of scientific or technical instruction or research, provided the storage and use of explosives or blasting agents is conducted or supervised by a person holding a Certificate of Competency and not more than 50 lbs of explosive are kept on hand at any time in such laboratories. Such Certificate of Competency can be issued by the State Fire Marshal without testing, providing a curriculum virtae is provided.

Replace this section in its entirety the following Section:
65.10 The possession and use of consumer fireworks is prohibited in the Commonwealth unless part of a Display Firework show in accordance with 65.2 or part of a Pyrotechnics Before a Proximate Audience in conformance with 65.3.

Add the following Sections:
65.11 Cannon or Mortar Firing.
65.11.1 The firing of muzzle-loading cannons during patriotic celebrations and reenactments, including all such cannons ranging from pre-Revolutionary War vintage to present day facsimiles shall comply with 65.11.
65.11.1.1 This Section shall not apply to any cannon exhibit in which explosives are not being used.
65.11.1.2 This Section shall not apply to the storage of ammunition for any cannon and shall be subject to all the applicable requirements in 65.9.

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

Add the following Section:
65.11.3 Definitions. The following terms shall have the meanings assigned to them for purposes of this Section of code only:

Add the following term and definitions:
65.11.3.1 Blank-Fire. The supervised discharge of a cannon or mortar without projectile.

65.11.3.2 Cannon. Any gun designed to be fired from a carriage resting on the ground and which is loaded from the muzzle with rigid non-combustible black powder cartridge.
65.11.3.3 Display. The supervised discharge of cannon or mortar, whether blank-fire without projectile or live-fire with projectile.
65.11.3.4 Live-Fire. The supervised discharge of cannon or mortar with projectile.
65.11.3.5 Mortar. Any cannon whose length is less than six times its bore diameter, or any cannon fired at an elevation of 45° or more from the horizontal.
65.11.3.6 Range. An area designated for the discharge of various weapons, having a minimum unobstructed length of 100 yards, a minimum unobstructed width of 25 yards, equipped with a natural or manmade down range barrier a minimum of ten feet in height.

Add the following Sections:
65.11.4 Range Conditions and Other Pre-Firing Requirements.
65.11.4.1 A cannon be only be fired with ball, shot or projectile on ranges approved by the AHJ. Such ranges shall be clear and unobstructed between discharge point and target area and for a safe distance to the rear of target in event of an overshoot. The target area shall not exceed 250 yards from the point of discharge.
65.11.4.2 There shall be no permanent building, public highway, railroad, or other public way within the forward sector of a 180° arc having a radius of 100 feet from the muzzle of the cannon. A similar sector of 180° directed toward the rear 75 feet in radius shall be clear of all public ways, permanent buildings, or other obstructions.
65.11.4.3 The firing of the cannon shall comply with the following:
- **(1)** No cannon shall be discharged during any windstorm in which the direction and velocity of the wind renders the display dangerous to the public safety and/or surrounding property.
- **(2)** There shall be no discharging of cannon between the hours of sunset and sunrise without prior written approval from the Head of the Fire Department.
- **(3)** The Head of the Fire Department shall designate the location and type of fire extinguishing equipment as may be required.
- **(4)** No firing of any cannon may be conducted unless the crew is present in adequate numbers for the particular cannon or mortar. The competent operator shall be responsible to ensure that all members of the crew have been fully trained in the safe operation of the cannon or mortar.
- **(5)** No member of the gun crew shall be under 18 years of age.
- **(6)** Smoking shall be prohibited in the discharge area.
- **(7)** No member of the audience shall be allowed in the forward or flank zone of the muzzle of a cannon firing a projectile within a forward sector of 180° having a radius of 150% of the estimated range of the piece.
- **(8)** The audience at a supervised firing of cannon shall be restrained behind lines 60 feet on the flank area back of the muzzle and 60 feet to the rear of the gun.
- **(9)** Unless otherwise allowed by the State Fire Marshal, no piece shall be discharged with blank ammunition, unless all spectators are at a safe distance from the front of the piece and at least 60 feet to the rear or flank. Adjacent pieces shall be at a safe interval.

Add the following Sections:
65.11.5 Magazines and Powder.
65.11.5.1 All ammunition and powder shall comply with the following:
- **(1)** All ammunition for cannon shall be transported and temporarily stored at the firing location in the finished state in a portable magazine. Such magazine shall be constructed of at least 24-gauge sheet metal lined with a minimum of ¾ inch marine plywood or other non-sparking material, and shall be of sturdy sealed construction held together with non-sparking fastenings. A suitable lock and hasp of non-sparking material shall be provided.
- **(2)** In the discharge area, a ready-service box constructed of wood with non-sparking fastenings and cover designed to be self-closing shall be positioned at ground level approximately 25 feet to the rear of the piece being served with the hinges toward the piece.
- **(3)** All magazines and ready-service boxes shall be closed prior to the loading of each cartridge of the piece being served and adjacent pieces. Ready-service boxes for each gun should contain the minimum number of cartridges required for the gun during that particular display. Magazines and ready-service boxes shall at all times be under the control of a competent member of the gun crew.
- **(4)** No loose or bulk powder other than priming powder in quantities not exceeding ½ ounce shall be used in the firing of any cannon, and no loose or bulk powder shall be transported or stored in any portable magazine with cartridges.
- **(5)** Blank artillery cartridges shall be made up of black powder only, not to exceed 4 ounces per inch of largest bore diameter. Cartridges must have a minimum of three wraps of heavy-duty aluminum foil and be packed to a firm consistency. Only cannon grade, 1F, or 2Fg black powder will be used. Powder grades cannot be mixed. No artillery cartridges shall be constructed at the event site. No wadding of any kind is permitted in blank firing.
- **(6)** The amount of black powder used in each cartridge shall be such as to not present an undue hazard to persons, property, or the piece itself.
- **(7)** Powder cartridges for cannons shall not exceed four ounces of powder per inch of bore diameter.

(8) Powder cartridges for mortars shall not exceed four ounces of powder per inch of chamber diameter.
(9) No torch shall be used to ignite any cartridge to be fired from cannon.
(10) All cannons used to fire a projectile shall be provided with an instant source of ignition such as an electrical squib, or bridge wire or percussion cap, or other approved instant firing device. Exception to the foregoing shall apply to the use of fuses for the firing of mortars.
(11) No firing of any steel or iron cannon or mortar shall be conducted unless the weapon contains a seamless steel safety sleeve with breech plug, designed for such firing and have had a boroscope inspection conducted by a qualified person. Original guns and bronze guns may be used without a safety sleeve, provided that they have had a boroscope inspection conducted by a qualified person. Pits, scratches, or other defects more than 3/16 inch deep shall render the cannon unusable.
(12) Cannons and mortars used for live-firing shall have a boroscope inspection conducted at least once every five years.
(13) Cannons and mortars used exclusively for blank-firing shall have a boroscope inspection conducted at least once every ten years.
(14) Projectiles shall not be so constructed as to develop any unsafe pressures; and no combustible, explosive, or pyrotechnic projectiles may be used.
(15) Reloading shall not commence until the worming and wet sponging have been completed after firing.
(16) The piece shall be wormed and wet sponged between shots and the vent stopped from the time the worm enters the muzzle until the rammer is removed from the bore after the cartridge is rammed in blank-firing, or the projectile is rammed in live-firing.
(17) At no time shall any cannon be left unattended while loaded or during a misfire until the piece has been cleared.
(18) In the event of a misfire, the competent operator shall take the following steps:
(a) The gunner shall give an audible warning.
(b) No personnel shall approach the front of the muzzle.
(c) A mandatory three minute cooling off period shall be observed.
(d) The piece shall be re-primed from a safe position and a repeated attempt made to fire the piece.
(e) If the attempt to re-fire the piece is unsuccessful, the piece shall be flooded with water through the vent and allowed to soak for a period of at least one hour unless the water or compressed gas can be used to flush the cartridge out of the muzzle.
(f) The projectile and/or cartridge shall be removed through the muzzle.
(19) If, after a display, the competent operator has reason to believe that there are any unignited charges or remnants thereof containing explosives in the area, he shall make a thorough search of the area for such explosives. The responsibility for disposition of it shall be assumed by the certificate holder.
(20) Any explosion, fire, or other accident occurring in connection with the keeping, storage, manufacture, handling, transportation, supervised display, or other disposition of ammunition for cannon causing loss of life or injury to any person or damage to property, shall be immediately reported to the State Fire Marshal by the competent operator, giving a detailed account of same and confirmed in writing.

Chapter 66
Modify this Chapter by adding, deleting or replacing the following Sections in Chapter 66 as provided below:

Replace with the following Section:
66.1.1* The storage, handling, and use of flammable and combustible liquids, including waste liquids, as herein defined and classified, shall comply with this chapter; NFPA 30, *Flammable and Combustible Liquids Code*; Sections 60.1 through 60.4 of this *Code; and* NFPA 35 *Standards for the Manufacture of Organic Coatings, as applicable.*

Add the following Section:
66.21.4.1.6 Pre-Fabricated Tanks and Dikes.
(1) Pre-fabricated tanks and dikes shall provide 110% containment.
(2) If a rain shield is provided, it shall have provisions that an overfill of the tank will go directly into the dike.

Delete Subsection
66.21.5.2.1 (2)

Add the following Section:
66.21.6.4.1 Automotive Lubrication Service Centers.
66.21.6.4.1.1 Tanks shall be located in a separate room from the main work area by a 2 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.

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

Delete
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 and be emptied of liquid 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 outlined in this section shall be followed when taking underground tanks temporarily out of service, closing them in place permanently, or removing them.

Replace with the following Section:
66.21.7.4.3. 2 Temporary Closure. Underground tanks shall comply with 310 CMR 80.00 and be rendered temporarily out of service only when it is planned that they will be returned to active service, closed in place permanently, or removed within an approved period not exceeding 5 year. 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 service for more than 5 years shall be permanently closed in place or removed in accordance with 66.21.7.4.3.3 or 66.21.7.4.3.4, as applicable.

Replace the following Section and Subparts:
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. 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 **66.21.7.4.3.8**

Delete. **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
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.

(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 below:

Replace 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 Section:

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

69.1.3.1Abandoned. 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 69.1.4.3 (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 69.1.4.4, the testing as prescribed in accordance with the Section 69.1.4.3 (2) shall be repeated. If necessary, thresholds shall be met by adding additional odorant to obtain proper odorized propane levels as prescribed in Sections 69.1.4.3 (1) or 69.1.4.3 (2). In such situations where the propane odorant is questionable, immediate verbal notification shall be given to the AHJ, 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 69.1.4.3 (1). Each railcar shipment delivered for distribution shall be tested for odorization using one of the tests prescribed in Section 69.1.4.3 (2) and sub-sections (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 below 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 D1265.

(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;

(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 69.1.1.1.1.4 (2), prior to being placed into service and;

(c) Maintain records in accordance with 69.1.1.1.1.5 and report findings, if applicable, in accordance with 69.1.1.1.1.2.

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 3 years from the date of delivery.
69.1.4.3.1 Test 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 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 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 69.1.1.1.1.6 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 lbs (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;
- **(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".