

522 CMR 9.00: REFRIGERATION AND AIR CONDITIONING SYSTEMS

Section

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9.01: Scope

- (1) Scope. The application of 522 CMR 9.00 is intended to ensure the safe design, construction, installation, operation, and inspection of every Refrigeration and Air Conditioning system that comes within scope of M.G.L. c. 146, § 45A.
- (2) Purpose. The purpose of 522 CMR 9.00 is to provide reasonable safety for life, limb, health, and property by adopting such rules and regulations in accordance with nationally recognized standards of engineering practice which will properly influence future progress and development in Refrigeration and Air Conditioning systems.
- (3) Requirements. The requirements of 522 CMR 9.00 shall apply to all Refrigeration and Air Conditioning Systems and Appurtenances that come within the scope of M.G.L. c. 146, § 45A excluding the following:
 - (a) Systems in railway trains;
 - (b) Systems in motor vehicles;
 - (c) Systems in private residences;
 - (d) Systems in apartment houses of less than five apartments;
 - (e) Systems under the jurisdiction of the United States;
 - (f) Agricultural, horticultural or floricultural purposes; and
 - (g) Systems having less than 20 tons capacity.
- (4) Field Inspections. All First Inspections shall be performed by a District Engineering Inspector or an Authorized Inservice Inspector before the Refrigeration or Air Conditioning Systems are put into service. Field inspections of Refrigeration or Air Conditioning Systems in Massachusetts shall be made annually thereafter by a District Engineering Inspector or an Authorized Inservice Inspector.

9.02: Construction

All Refrigeration and Air Conditioning Systems under the scope of 522 CMR 9.00 shall be initially constructed in accordance with *ASHRAE 15 Safety Standards for Refrigeration Systems* and *ASHRAE 34 Designation and Safety Classification of Refrigerants for the Installation of Refrigeration Systems* and *ANSI/IIAR 2, Standard for Equipment, Design and Installation of Closed-circuit Ammonia Mechanical Refrigerating Systems*.

9.03: Installation

In accordance with the provisions of M.G.L. c. 146, § 2, the Board adopts *ASHRAE 15-2022 Safety Standards for Refrigeration Systems* and *ASHRAE 34-2022 Designation and Safety Classification of Refrigerants for the Installation of Refrigeration Systems* and *ANSI/IIAR Standard 4-2020, American National Standard for Installation of Closed-circuit Ammonia Refrigeration Systems*.

9.04: Inspection

- (1) Application. Whoever owns or uses or causes to be used a Refrigeration or Air Conditioning System that comes within the scope of M.G.L. c. 146, § 45A, shall make application for inspection prior to installation and operation to the Division in a format approved by the Chief.

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(2) Annual Inspections. When a Refrigeration or Air Conditioning System is installed, a field inspection shall be performed before it is put into service, and the Refrigeration or Air Conditioning System shall be inspected annually thereafter by a District Engineering Inspector or an Authorized Inservice Inspector.

Refrigerant detector(s), alarm(s) and the refrigeration mechanical room ventilating systems shall be tested annually and in accordance with manufacturer's specifications. Records supporting that such periodic testing was performed on Refrigeration Systems 20 tons capacity or greater shall be made available upon request by a District Engineering Inspector or an Authorized Inservice Inspector during the annual inspection.

(3) Prescribed Pressure. A refrigeration or air conditioning system shall not be operated in excess of the prescribed pressure. If the refrigeration or air conditioning system is constructed and installed in accordance with 522 CMR prescribed by the Board, the District Engineering Inspector or Authorized Inspector shall issue a Certificate stating the maximum pressure at which the system will be permitted to operate.

(4) Certificate to Be Posted.

(a) The Department shall issue to the Owner/User of a Refrigeration or Air Conditioning System compliant with 522 CMR a Certificate, on condition that the appropriate fees have been paid. The Certificate shall be protected from dirt, moisture, and contamination and shall be posted in a conspicuous place near where the Refrigeration or Air Conditioning System specified therein is located and shall be kept with said Refrigeration or Air Conditioning System, and shall be always accessible to the District Engineering Inspector or Authorized Inservice Inspector.

(b) The Certificate shall include the name of the Authorized Inspection Agency, the National Board number, the Mass Tag number, the name of the manufacturer, the name of the owner or user, the location, size and number of the Refrigeration or Air Conditioning System, the date of inspection and the maximum pressure at which it may be operated, with the signature of the inspector, and shall contain such extracts from the statutes as shall be deemed necessary by the board.

(c) The Certificate shall remain posted while the Certificate is in force, unless a District Engineering Inspector or an Authorized Inservice Inspector deems the Refrigeration or Air Conditioning System or its Appurtenances unsafe or dangerous. If a Refrigeration or Air Conditioning System is determined to be unsafe or dangerous, the District Engineering Inspector or Authorized Inservice Inspector shall remove the Certificate, and submit such certificate to the Chief, and the Refrigeration or Air Conditioning System shall not be operated until such time that a valid Certificate is reissued.

(5) Inspection Reporting. Pursuant to M.G.L. c. 146, § 45A, whoever owns, or uses or causes to be used, any Refrigeration or Air Conditioning System, shall report in writing to the Chief the location of such Refrigeration or Air Conditioning System, before the work of installation of such Refrigeration or Air Conditioning System, and annually thereafter; provided, that the Owner/User of an insured Refrigeration or Air Conditioning System shall report immediately in writing to the Chief whenever the Authorized Inspection Agency ceases for any cause to inspect the Boiler.

(6) Reporting by Authorized Inspection Agency.

(a) Pursuant to M.G.L. c. 146, § 45A, every Authorized Inspection Agency shall forward to the Chief, within 14 days after each inspection, reports of all Refrigeration and Air Conditioning Systems inspected by the Authorized Inservice Inspectors. Such reports shall be made on a form, and submitted to the Division in a format approved by the Chief and shall contain all orders made by the company regarding such Refrigeration or Air Conditioning Systems.

(b) All Authorized Inspection Agencies shall notify the Chief, within 14 days, on a form and submitted in a format approved by the Chief, of all new business or discontinuation of business regarding coverage of registered Refrigeration and Air Conditioning Systems. All Authorized Inspection Agencies shall report immediately to the Chief in writing the name of the Owner/User and the location of every Refrigeration and Air Conditioning System required to be inspected by M.G.L. c. 146, § 45A, upon which they have cancelled or refused insurance, giving the reasons therefor.

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(c) The Authorized Inspector shall notify the Chief or his designee immediately in writing if the Authorized Inspector finds that an unsafe and dangerous condition exists resulting in the removal of the Certificate.

(d) Authorized Inspection Agencies shall report the location and owner's information, and the type and amount (pounds) of refrigerant used for all refrigeration and air conditioning systems.

(7) Welding. All welding done on any Refrigeration or Air Conditioning System or piping covered by 522 CMR 9.00 shall be performed by a welder qualified according to the 2021 *ASME Boiler and Pressure Vessel Code* Section IX, *Welding, Brazing and Fusing Qualifications*.

(8) Electrical. A person holding a license as a refrigeration technician may connect or disconnect for the purpose of installation, alteration, repair or replacement, any device or control required by rules and regulations of the Board to be a part of a refrigeration or air conditioning installation, or being an integral part of the refrigeration or air conditioning equipment at the connection on such device, control or part to be repaired or replaced, from the first disconnect in. The first disconnect is the wall plug or nearest electrical disconnect to the refrigeration or air conditioning equipment.

(9) Plumbing. An individual who is licensed in compliance with M.G.L. c. 146, § 85 as a refrigeration technician may connect or disconnect for the purpose of alteration, repair or replacement of controls downstream of the equipment gas shutoff valve any device or control that is regulated by 522 CMR or is an integral part of the refrigeration or air conditioning equipment.

REGULATORY AUTHORITY

522 CMR 9.00: M.G.L. c. 146, §§ 1 through 51, 56 through 64 and 66 through 80.