In accordance with the provisions of M.G.L. c. 146, § 2, the Board adopts by reference the ASME Boiler and Pressure Vessel Code, 2015 Section I, Rules for Construction of Power Boilers.

To ensure the proper daily inspection of steam Boilers, the following shall apply:

(1) When an engineer or fireman is operating steam Boilers or steam engines, he or she is actually engaged as an assistant to the person in charge, and during his or her hours on duty, he or she is held responsible for the proper operation of the Boilers and engines specified and their Appurtenances. Operators of steam Boilers shall complete and sign the Operators’ Record Book, as provided for in M.G.L. c. 146, § 46A, on a daily basis. These records shall be made available to the District Engineering Inspector upon request.

(2) In the event of a Reportable Accident/Incident, the Owner/User or the Engineer in Charge shall notify the Massachusetts Emergency Management Agency at 508-820-1444 within 24 hours of the event.

(3) All Engineers and Firemen in charge of steam Boilers and/or engines shall notify the Department in writing, within seven days of his or her appointment, of the location of the Boilers and/or engines of which he or she is in charge. When accepting or leaving a position as an Engineer or Fireman in charge, the Engineer or Fireman shall notify the Department within seven days.

(4) The Engineer in Charge is the actual authority for the operation, maintenance, and repair of the Boilers, Pressure Vessels, engines, and their Appurtenances specified. All persons operating, repairing or maintaining these Boilers, Pressure Vessels, engines, and their Appurtenances do so under the direct authority of the Engineer in Charge. In order to effectively perform his or her duties, the Engineer in Charge shall make daily visits to the plant. Individuals performing duties as the Engineer in Charge will leave daily written instructions to the operating personnel and those instructions will be made available to the District Engineering Inspector upon request. The Engineer in Charge shall sign the Engineer’s Record Book, as provided for in M.G.L. c. 146, § 51, on a daily basis and shall review the Operator’s Log Book on a daily basis. It is reasonable for the Engineer in Charge to perform his or her duties at the facility five working days per week.

(1) Heat Recovery Steam Generators (HRSGs). All heat recovery steam generators built after May 1, 2000, shall be built to the ASME Boiler and Pressure Vessel Code Section I, Rules for Construction of Power Boilers adopted at the time of installation.

(2) Restrictions, Dual Pressure Controls, Bypass Switches.
   (a) Steam Boilers under 522 CMR 2.03 are prohibited from having any device that enables the Boiler to operate at a pressure less than 10% of its normal operating pressure. Dual pressure controls or any similar device are prohibited from use on all steam Boilers operating above 15 PSIG.
2.03: continued

(b) Manual devices and switches that allow the bypass of any safety control are prohibited unless such device or switch is provided with a “dead-man” capability that ensures that the Operator is present and responsible when the device or switch is in use. No such device or switch shall have the capability to fail in the closed position.

(3) Remote Monitoring Systems. When remote monitoring systems on Steam Boiler plants are in use, they shall monitor, but not be limited to: steam pressure, water level, and remote shut down.

2.04: Welded Repairs, Major Repairs, Alterations

All Repairs and Alterations performed to the High Pressure/Power Boiler and the High Pressure/Power Boiler proper as stamped shall be done in accordance with the provisions of M.G.L. c. 146, § 2 and NBIC Part 3. It is the responsibility of the Owner/User or Engineer in Charge to ensure that all repairs and alterations are performed in accordance with 522 CMR 2.00.

2.05: Installation

In accordance with the provisions of M.G.L. c. 146, § 2, the Board adopts the 2015 NBIC Part 1.

2.06: Inspection

In accordance with the provisions of M.G.L. c. 146, § 2, the Board adopts the 2015 NBIC Part 2.

(1) Application. Whoever owns or uses or causes to be used a High Pressure/Power Boiler that comes within the scope of M.G.L. c. 146, § 6, shall make application for inspection prior to operation to the Chief in a format approved by the Department.

(2) Field Inspection. All High Pressure/Power Boilers shall be thoroughly inspected internally and externally while under pressure at least once annually in accordance with the 2015 NBIC. The annual external inspection shall be within six months after the annual internal inspection. A District Engineering Inspector shall perform the First Inspection as required by M.G.L. c. 146, § 6. Subsequent annual inspections shall be performed by a District Engineering Inspector or an Authorized Inspector. A thorough Internal Inspection requires the following:
   (a) Each space, including but not limited to, fireside and waterside spaces provided with a handhole, manhole, or other points of access such as doorways and openings into fireside and waterside spaces shall be opened and cleaned for a visual inspection.
   (b) Pre-inspection and post-inspection activities as provided for in the 2015 NBIC shall be performed.

(3) Certificate to be Posted.
   (a) The Department shall issue to the Owner/User of a Boiler compliant with 522 CMR a Certificate, provided 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 Boiler specified therein is located and shall be kept with said Boiler and shall be always accessible to the District Engineering Inspector or Authorized Inspector.
   (b) The Certificate shall include the name of the insurance company, the national board number, the name of the manufacturer, model number, and the following in accordance with M.G.L. c. 146, § 27: the name of the Owner/User; the location, size, pounds per hour of steam and pressure or BTU per hour output; fuel; the date of inspection; the maximum pressure at which the Boiler may be operated; the expiration date; and the name and signature of the District Engineering Inspector or Authorized Inspector.
2.06: continued
(c) The Certificate shall remain posted while the Certificate is in force, unless a District Engineering Inspector or an Authorized Inspector deems the Boiler or its Appurtenances unsafe or dangerous. If a Boiler is determined to be unsafe or dangerous, the District Engineering Inspector or Authorized Inspector shall remove the Certificate, and the Boiler or Pressure Vessel shall not be operated until such time that a valid Certificate is issued.

(4) Preparation of Inspection. The Boiler shall be prepared for inspection in accordance with the NBIC. The Engineer in Charge is responsible to ensure the Boiler is properly prepared for inspection.

(5) Inspection Reporting. Pursuant to M.G.L. c. 146, § 10, whoever owns, or uses or causes to be used, any power Boiler, unless the same is under the periodically guaranteed inspection of an insurance company authorized to insure Boilers in the Commonwealth, shall report in writing to the Chief the location of such Boiler, before the work of installation of such Boiler is completed, and annually thereafter; provided, that the Owner/User of an insured Boiler shall report immediately in writing to the Chief whenever the insurance company ceases for any cause to inspect the Boiler.

(6) Reporting by Insurance Companies.
(a) Pursuant to M.G.L. c. 146, § 77, every insurance company shall forward to the Chief, within 14 days after each inspection, reports of all Boilers inspected by the Authorized Inspectors. Such reports shall be made on a form approved by the Chief and shall contain all orders made by the company regarding such Boilers.
(b) All insurance companies shall notify the Chief, within 14 days, on the appropriate NBIC form, approved by the Chief, of all Boiler new business or discontinuation of business. All insurance companies shall report immediately to the Chief the name of the Owner/User and the location of every Boiler required to be inspected by M.G.L. c. 146, § 70, upon which they have cancelled or refused insurance, giving the reasons therefor.

(7) Boiler Horsepower.
(a) When liquid or gaseous fuel, electric or atomic energy or any other source of heat is used, the horsepower of a Boiler shall be determined by either the manufacturer’s factory tag affixed to the Boiler or burner denoting horsepower, or calculated by one of the following formulae: the steam output capacity as listed on the manufacturer’s tag divided by 34.5, the BTU/hr input listed on the manufacturer’s tag divided by 41,840 or the BTU/hr output listed on the manufacturer’s tag divided by 33,475.
(b) If a tag is missing, damaged or unclear, the licensed Engineer in Charge or on duty at the time shall notify the Owner/User of the steam Boiler. The Owner/User shall obtain a notarized letter, signed by an officer of the manufacturer of the Boiler or burner, listing the maximum capacity of the steam Boiler in BTU/hr. Such letter shall be an acceptable basis for calculating the horsepower of that particular steam Boiler.
(c) The minimum safety valve relieving capacity shall be determined in accordance with the ASME Code.

2.07: General Requirements

Pressure Tests. When there is doubt as to the extent of a defect of detrimental condition found in a High Pressure/Power Boiler, the District Engineering Inspector or the Authorized Inspector may require a pressure test at any time. Such tests shall be performed in accordance with the NBIC and the Engineer in Charge shall notify the District Engineering Inspector.

REGULATORY AUTHORITY

522 CMR 2.00: M.G.L. c. 146, §§ 1 through 51, 56 through 64 and 66 through 80.