

**02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION**  
**41 OFFICE OF PROFESSIONAL AND OCCUPATIONAL REGULATION**  
**BOILER AND PRESSURE VESSEL SAFETY PROGRAM**

**Chapter 70: DEFINITIONS**

---

**Summary:** This Chapter defines terms used in the Program's rules.

---

**SECTION 1. Conflicts**

1. If a conflict exists as to definitions contained in statute or rule, the following sets forth the order as to which definition controls:
  - A. Definitions set forth in Title 32, Chapter 131 of the Maine Revised Statutes;
  - B. Definitions set forth in this Chapter;
  - C. Definitions set forth in the national safety codes and standards incorporated by reference in Chapter 73 of the Program's rules.

**SECTION 2. Definitions**

As used in the Boiler and Pressure Vessel Safety Program's rules, unless the context otherwise indicates, the following terms have the following meanings:

1. **ANSI.** "ANSI" means the American National Standards Institute.
2. **ASME.** "ASME" means the American Society of Mechanical Engineers.
3. **Boiler.** "Boiler" includes power boilers and low pressure boilers and means a closed vessel in which water is heated, steam is generated, steam is superheated, or any combination thereof, under pressure or vacuum for use external to itself by the direct application of heat. "Boiler" also includes fired units for heating or vaporizing liquids other than water where these units are separate from processing systems and complete within themselves. As used in the Program's rules, the "boiler" does not include those units that are exempt under 32 M.R.S. § 15102(1). When referring to power boilers, "boilers" includes boiler external piping.
4. **Boiler Operation.** The director recognizes the following methods by which boilers are operated:

- 
- A. “Manual operation” means that a full-time boiler operator or stationary steam engineer is required to observe boiler pressures, temperatures, and levels and to make adjustments as the output demand fluctuates. A partially automated boiler must be classified as being manually operated.
- B. “Automatic operation” means that a boiler is fully equipped with automatic control systems and does not require a boiler operator or stationary steam engineer to make adjustments as the output demand fluctuates.
5. **Chief inspector.** “Chief inspector” means the chief inspector of Boilers and Pressure Vessels approved under 32 M.R.S. § 15106 or the chief inspector’s designee.
6. **Electric Boiler.** “Electric boiler” means a power boiler or low pressure boiler in which the source of heat is electricity.
7. **Engineer-in-Charge.** “Engineer-in-charge” means the licensed person designated by an owner to be responsible for ensuring that a boiler plant is maintained and operated in a safe condition by the company or organization to which the boiler or boilers are registered by the State of Maine.
8. **Low Pressure Boiler.** “Low pressure boiler” means a boiler in which either: (1) steam or other vapor is generated at a pressure of no more than 15 PSIG or (2) fluid is heated to no more than 250 degrees Fahrenheit and/or the operating pressure is no more than 160 PSIG. “Low pressure boiler” is referred to as a “heating boiler” or a “process boiler.”
9. **Inspector.** “Inspector” means the chief inspector, a deputy inspector, or an authorized inspector as defined in 32 M.R.S. § 15101.
10. **MAWP.** “MAWP” means maximum allowable working pressure.
11. **National Board.** “National Board” means the National Board of Boiler and Pressure Vessel Inspectors.
12. **NBIC.** “NBIC” means the National Board Inspection Code.
13. **NPS.** “NPS” means nominal pipe size.
14. **Organic Fluid Boiler.** “Organic fluid boiler” means a pressure vessel in which organic fluid is vaporized or heated.
15. **Owner.** “Owner” means a firm, person, partnership, association, corporation, or state or political subdivision that owns a boiler or pressure vessel.

16. **Place Out of Service.** “Place out of service” means to render safe and completely inoperable, other than to make repairs, for an indefinite period.
17. **Plant.** “Plant” means the buildings, equipment, and fixtures of an institution or an industrial or manufacturing establishment at any one site.
  - A. **Heating Plant.** A “heating plant” consists of the boiler or boilers and the auxiliary equipment and would not necessarily include piping and radiation equipment used for space heating.
  - B. **Power Plant.** A “power plant” consists of the boiler or boilers, the auxiliary equipment and prime mover machinery used to produce electric power to be used outside the boiler and engine spaces.
  - C. **Process Plant.** A “process plant” consists of the boiler and the auxiliary equipment, which may or may not have prime moving machinery and will not necessarily include machinery and equipment used for manufacturing of a product. Process plant includes both low pressure and power boilers.
18. **Power Boiler.** “Power boiler,” also commonly known as a “high pressure boiler,” means a boiler in which steam or other vapor is generated at a pressure of more than 15 PSI for use external to itself, and includes electric boilers, miniature boilers, organic fluid boilers (including but not limited to Hot Oil Boilers and Thermal Fluid Heaters), and high-temperature water boilers.

The term “power boiler” includes boiler external piping up to and including the required stop valve(s).
19. **Pressure Vessel.** “Pressure vessel” means a container for the containment of pressure, either internal or external. This pressure may be obtained from an external source, or by the application of heat from a direct or indirect source, chemical reaction, or any combination thereof. As used in the Program’s rules, “pressure vessel” does not include units that are exempt under 32 M.R.S. § 15102(2).
20. **Program.** “Program” means the Boiler and Pressure Vessel Safety Program.
21. **PSI.** “PSI” means pounds per square inch.
22. **PSIG.** “PSIG” means pounds per square inch gauge.
23. **Relocation.** “Relocation,” when applied to a boiler or pressure vessel, means movement of the boiler or pressure vessel to any extent from its current site. A “relocated” boiler or pressure vessel is a boiler (other than a portable boiler), or a pressure vessel, that is moved.

24. **Reportable Accident.** “Reportable Accident” means an unexpected and sudden event that renders a boiler or pressure vessel inoperative and adversely affects its pressure retaining capability, or an event that causes the boiler or pressure vessel to alter its routine or normal operating conditions.
25. **Stamp.** “Stamp” means a code symbol issued by the American Society of Mechanical Engineers or the National Board of Boiler and Pressure Vessel Inspectors. “Stamped” and “stamping” mean the application of such a code symbol.
26. **Stationary Steam Engineer.** “Stationary steam engineer” means a person licensed pursuant to 32 M.R.S. § 15109 to operate a high pressure boiler or to be responsible for the operation and maintenance of equipment in a plant, in accordance with Maine law, and includes boiler operators.
27. **Suspend Operation.** “Suspend Operation” means the discontinuance of operation of a boiler or pressure vessel for any purpose, other than to make repairs, for a limited period of time.
28. **TAPPI.** “TAPPI” means the Technical Association of the Pulp and Paper Industry.

---

AUTHORITY: 32 M.R.S. §§ 15101, 15102, 15103-A, 15106 and 15109

EFFECTIVE DATE:

**02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION**

**41 OFFICE OF PROFESSIONAL AND OCCUPATIONAL REGULATION**

**BOILER AND PRESSURE VESSEL SAFETY PROGRAM**

**Chapter 71: VARIANCES**

---

**Summary:** This Chapter prescribes the procedure for the filing of a petition for a variance under 32 M.R.S. § 15104-B.

---

A petition for a variance must be submitted by an owner or the owner's representative to the chief inspector, on a form approved by the director, and must be accompanied by required fees as set forth in the Chapter 10 of the rules of the Office of Professional and Occupational Regulation. The owner must comply with any request by the chief inspector for additional information.

---

**AUTHORITY:** 32 M.R.S. §§ 15103-A, 15104-B

**EFFECTIVE DATE:**

**02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION**

**41 OFFICE OF PROFESSIONAL AND OCCUPATIONAL REGULATION**

**BOILER AND PRESSURE VESSEL SAFETY PROGRAM**

**Chapter 72: ADVISORY RULINGS**

---

**Summary:** This Chapter establishes requirements and guidelines for the director's discretionary issuance of advisory rulings.

---

**SECTION 1. Authority and Scope**

The director may issue an advisory ruling in accordance with 5 M.R.S. § 9001 concerning the applicability of a statute or rule to existing facts. The director shall review each request for an advisory ruling to determine whether the requested ruling is appropriate. The director may, at their discretion, decline to issue an advisory ruling if the question is hypothetical, if there is insufficient information upon which to base a ruling, or for any other reason the director deems proper.

**SECTION 2. Submission**

A request for an advisory ruling must be submitted to the director in writing and must set forth in detail all facts pertinent to the question. The director may require submission of additional information they deem necessary to provide a complete factual background.

**SECTION 3. Ruling**

The director shall issue advisory rulings in writing. The advisory ruling must include a statement of the facts or assumptions, or both, upon which the ruling is based. The statement must be sufficiently detailed to apprise the reader of the factual basis of the opinion without reference to other documents. The ruling must be signed by the director, identified specifically as an advisory ruling, and numbered serially.

**SECTION 4. Publication**

The director shall provide a copy of the advisory ruling to the requesting party and shall otherwise publish or circulate an advisory opinion as they deem appropriate.

---

**AUTHORITY:** 5 M.R.S. §§ 8051, 9001 and 32 M.R.S. § 15103-A

**EFFECTIVE DATE:**

**02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION**  
**41 OFFICE OF PROFESSIONAL AND OCCUPATIONAL REGULATION**  
**BOILER AND PRESSURE VESSEL SAFETY PROGRAM**

**Chapter 73: SAFETY CODES AND STANDARDS**

---

**Summary:** This Chapter specifies the national safety codes and standards that apply to boilers and pressure vessels regulated in the State of Maine.

---

**SECTION 1. Safety Codes and Standards**

The director adopts and incorporates by reference in this Chapter the following national safety codes and standards to govern construction, installation, inspection, operation, and alteration and repair of boilers and pressure vessels:

1. ASME Boiler and Pressure Vessel Code, 2023 Edition (July 1, 2023) Copyright © 2023 by The American Society of Mechanical Engineers, with the exception of Section III, Rules for Construction of Nuclear Facility Components, and Section XI, Rules for Inservice Inspection of Nuclear Reactor Facility Components.
2. ASME Code for Power Piping, B31.1-2022 (Revision of ASME B31.1-2020) (October 10, 2022) Copyright © 2022 by The American Society of Mechanical Engineers.
3. National Board Inspection Code, ANSI/NB23 2023 Edition (July 1, 2023), Copyright © 2023 by The National Board of Boiler & Pressure Vessel Inspectors, Parts 1, 2, 3 and 4. Enforcement of Part 1, Installation, is delayed for a period of thirty-six (36) months, measured from the effective date of this Chapter.
4. Controls and Safety Devices for Automatically Fired Boilers ASME CSD-1-2021 (Revision of ASME CSD-1-2018) (November 17, 2021) Copyright © 2021 by the American Society of Mechanical Engineers.
5. Guidelines for inspection and nondestructive testing of paper machine dryers, TIP 0402-16, Issued in 1989 (2015 Revision) Copyright © 2015 TAPPI.

**SECTION 2. Existing boilers and pressure vessels**

1. Notwithstanding the provisions of Section 1, boilers and pressure vessels existing as of the effective date of this Chapter must:

- A. At a minimum, be maintained in accordance with the code of construction in effect at the time of installation; or
- B. Comply with the applicable adopted safety code or standard set forth in Section 1 of this Chapter.

### **SECTION 3. Conflicts**

When a rule in another Chapter refers to a national code, the reference is to the edition of the code, addendum, and/or appendix adopted in this Chapter. In the event of a conflict between a provision contained in a national safety code and standard and a provision of statute or program rules, the provision contained in statute or program rules govern.

### **SECTION 4. Copies of Codes and Standards**

1. Copies of ASME Codes may be purchased from:

The American Society of Mechanical Engineers  
ASME  
Two Park Avenue  
New York, NY 10016-5990  
Tel. 1-800-843-2763  
customer@asme.org  
[www.asme.org](http://www.asme.org)

2. Copies of the National Board Inspection Code may be purchased from:

The National Board of Boiler and Pressure Vessel Inspectors  
1055 Crupper Avenue  
Columbus, OH 43229  
Tel. 614-888-8320  
info@nbbi.org  
[nbbi.org](http://nbbi.org)

3. Copies of TAPPI publications may be purchased from:

TAPPI  
15 Technology Parkway South  
Suite 115  
Peachtree Corners, GA 30092  
Tel. 770-446-1400  
[www.tappi.org](http://www.tappi.org)



EFFECTIVE DATE:

**02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION**  
**41 OFFICE OF PROFESSIONAL AND OCCUPATIONAL REGULATION**  
**BOILER AND PRESSURE VESSEL SAFETY PROGRAM**

**Chapter 74: POWER BOILERS**

---

SUMMARY: This Chapter establishes requirements for the safe and proper construction, installation, repair, use, operation and inspection of power boilers.

---

**SECTION 1. New Installations**

1. **Approval of Installation.** Before a power boiler is installed, the owner must submit to the chief inspector detailed plans and specifications of the installation for approval at least thirty (30) days prior to installation on a form approved by the director. The owner must comply with any request by the chief inspector for additional information. A power boiler may not be installed unless the chief inspector has issued a written approval for the installation. Notwithstanding the requirements of Section 1, Subsection 1 of this Chapter, emergency situations will be handled on a case-by-case basis by the chief inspector and may be approved less than thirty (30) days prior to installation.
2. **Initial Inspections**
  - A. **Inspection.** The chief inspector shall conduct the initial inspection of a new or relocated power boiler in accordance with the applicable code(s) specified in Chapter 73 of the Program's rules. So long as construction permits, the initial inspection must consist of an internal and external inspection. The entire boiler and boiler external piping must be hydrostatically tested after field installation. The chief inspector shall maintain a record of the results of the inspection.
  - B. **Interim Inspection Certificate.** If after initial inspection the chief inspector determines that a power boiler complies with all provisions of Title 32, Chapter 131, the Program's rules, and any applicable national safety codes and standards, the chief inspector may issue an interim inspection certificate for the operation of the power boiler that is valid for up to sixty (60) days pending issuance of the initial inspection certificate.
  - C. **Expenses.** The owner or the owner's designee must pay the initial inspection fee and any related expenses for the initial inspection of a power boiler. If the fee has not been paid by the date the interim certificate

expires, the chief inspector shall direct the owner to suspend operation of the power boiler.

3. **Approval of Operation.** Before a newly installed power boiler is operated:
  - A. The owner must comply with the provisions of Section 1, Subsections 1 and 2 of this Chapter, and
  - B. The chief inspector must have approved the operation on a form approved by the director.
4. **Relocation.** Before a relocated power boiler is installed, the owner must petition the chief inspector for a variance to approve the installation. A relocated boiler must meet the requirements for new installations, whenever practicable.

## SECTION 2. Existing Power Boilers

1. **Rules Applicable to Construction and Installation.** The design, construction, construction-related inspection, installation, and stamping of all existing power boilers must comply with the rules of the Program in effect at the time of installation.
2. **Rules Applicable after Installation.** The maintenance, operation, and post-installation inspection of all existing power boilers must comply with the rules of the Program in effect at the time of the maintenance, operation, or post-installation inspection.

## SECTION 3. Registration Numbers

1. **Display; Not Transferable.** The assigned State of Maine registration number must appear on each power boiler at all times. The registration number assigned to a power boiler may not be transferred to another boiler.
2. **High Pressure Numbers.** Before any power boiler may be operated in this State, the assigned State of Maine registration number preceded by the letters "ME" must be stamped on a durable and visible tag with the numbers and letters not less than 3/8 of an inch in height. This tag must appear in the vicinity of the manufacturer's code stamping.

## SECTION 4. Periodic Inspections of Power Boilers

1. **Frequency and Method.** Before the initial inspection certificate expires, and annually thereafter, all power boilers in the State must be inspected as follows:
  - A. An Inspector must conduct one (1) annual certificate inspection, which must be an internal inspection, and one (1) annual external inspection

conducted approximately six (6) months from the date of the certificate inspection while the boiler is in operation.

B. Miniature boilers must:

- (1) Once a year, undergo a certificate inspection, which must be an external inspection, documented by an Inspector on the inspection certificate; and
- (2) Once every two (2) years, undergo an internal inspection.

C. Thermal fluid heaters must undergo a certificate inspection once a year which may or may not be an internal inspection; however it must include verification of acceptable internal condition based on non-destructive testing.

2. **Report.** An Inspector must submit a report of each certificate inspection required under Section 4, Subsection 1 of this Chapter to the director on a form approved by the director.

## SECTION 5. MAWP of Existing Power Boilers Not Constructed to Code

1. The MAWP on the shell of a power boiler or drum shall be determined by the strength of the weakest course computed from the thickness of the plate, the tensile strength of the plate, the efficiency of the longitudinal joint, the inside diameter of the course, and the factor of safety allowed by Paragraph A of Section 5, Subsection 1 of this Chapter. The formula for determining MAWP is as follows:

$$\frac{TStE}{RFS} = \text{MAWP, PSIG}$$

**Where:**

- |    |   |   |
|----|---|---|
| TS | = | Ultimate tensile strength of shell plates, PSI  |
| R  | = | Inside radius of the weakest course of the shell or drum, inches.   |
| t  | = | Minimum thickness of shell plates in weakest course, inches.  |
| E  | = | Efficiency of longitudinal joint, as calculated in the ASME Boiler and Pressure Vessel Code specified in Chapter 73 of the Program's rules. |
| FS | = | Factor of Safety allowed by Paragraph A of this Subsection.   |

A. **Factor of Safety.** The factor of safety must be at least 5.

B. **Tensile Strength.** When the tensile strength of steel or wrought-iron shell plates is not known, it must be assumed to be 55,000 PSI for steel and 45,000 PSI for wrought iron.

- C. **Strength of Rivets.** Calculations concerning riveted joints must be those established by the ASME Boiler and Pressure Vessel Code specified in Chapter 73 of the Program's rules, or as approved by the director.

#### **SECTION 6. Lap Seam Boilers**

No boiler of longitudinal lap seam construction may be installed or operated as a power boiler within the State.

#### **SECTION 7. Non-Code H.R.T. Boilers**

A non-code horizontal return tubular boiler may not be installed or operated as a power boiler unless it was in use in this State before January 9, 1936.

#### **SECTION 8. Pitch Horizontal Firetube Boilers**

Horizontal firetube boilers must be pitched toward the blow-off outlet not less than one (1) inch for each ten (10) feet of tube length when set.

#### **SECTION 9. Manual Dampers**

Fully closable manual dampers are prohibited on automatically fired power boilers. The owner must ensure that any such existing dampers are removed.

#### **SECTION 10. Engineers-in-Charge**

The owner must assign an engineer-in-charge for any power boiler operated in the State of Maine as required by Chapter 80, Boiler Operators and Stationary Steam Engineers. The engineer-in-charge must comply with the provisions of Chapter 80, Section 7 of these rules.

---

AUTHORITY: 32 M.R.S. § 15103-A

EFFECTIVE DATE:

**02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION**  
**41 OFFICE OF PROFESSIONAL AND OCCUPATIONAL REGULATION**  
**BOILER AND PRESSURE VESSEL SAFETY PROGRAM**

**Chapter 75: LOW PRESSURE BOILERS**

---

**Summary:** This Chapter establishes specific requirements for the identification, construction, installation, inspection, and operation of low pressure boilers.

---

**SECTION 1. Exemptions**

1. Hot water heating boilers and hot water supply boilers are exempt from the certificate inspection process set forth in this Chapter, provided the following conditions are met:
  - A. The boilers are constructed and installed in accordance with Program rules and pass an initial installation inspection; and
  - B. The heat input to any one object is less than 200,000 Btu/hour.

**SECTION 2. New Installations**

**1. Registration and Certification**

Before any low pressure boiler is operated in the State of Maine, the owner of the low pressure boiler must register the low pressure boiler with the director and must obtain a current, valid inspection certificate for the low pressure boiler.

**2. Installation Inspections**

Before placing a new low pressure boiler in operation beyond routine testing, the owner must:

- A. Notify the director in writing; and
- B. Pass an initial inspection of a low pressure boiler is conducted by an Inspector in accordance with the applicable code specified in Chapter 73 of these rules. The initial inspection must consist of an external inspection, and an internal inspection if construction permits. The Inspector must report the results of the inspection to the director on a form approved by the director.

### 3. **Relocation**

Before a relocated low pressure boiler is installed, the owner must petition the chief inspector for a variance in accordance with Chapter 71 of these rules for approval of the installation. The chief inspector must perform the initial inspection of a relocated boiler.

## **SECTION 3. Existing Low Pressure Boilers**

1. **Rules Applicable to Construction and Installation.** The design, construction, construction-related inspection, installation, and stamping of all existing low pressure boilers must comply with the rules of the Program that were in effect at the time of installation.
2. **Rules Applicable after Installation.** The maintenance, operation and post-installation inspection of all existing low pressure boilers must comply with the rules of the Program in effect at the time of the maintenance, operation, or post-installation inspection.

## **SECTION 4. Registration Numbers**

1. **Display; Not Transferable.** The assigned State of Maine registration number must appear on each low pressure boiler at all times. The registration number assigned to a low pressure boiler may not be transferred to another boiler.
2. **Low Pressure Boiler Numbers.** The Inspector must place the assigned State of Maine registration number, preceded by the letter "H," on a self-locking tag issued by the director and must affix the tag to a suitable fitting on the low pressure boiler.

## **SECTION 5. Periodic Inspections of Low Pressure Boilers**

1. **Inspection Methods and Frequency.** Before the initial inspection certificate expires, and annually thereafter, all low pressure boilers in the State must be inspected as follows:
  - A. An Inspector must perform one (1) annual certificate inspection, which must be an external inspection conducted while the boiler is in operation; and
  - B. When construction permits, an Inspector must perform an internal inspection every third year.
2. **Report.** An Inspector must submit to the director a report of each inspection performed pursuant to Section 5, Subsection 1 of this Chapter on a form approved by the director.

## SECTION 6. MAWP of Existing Low Pressure Boilers Not Constructed to Code

1. The MAWP on the shell of a low pressure boiler or drum shall be determined by the strength of the weakest course computed from the thickness of the plate, the tensile strength of the plate, the efficiency of the longitudinal joint, the inside diameter of the course, and the factor of safety allowed by Paragraph A of Section 6, Subsection 1 of this Chapter. The formula for determining MAWP is as follows:

$$\frac{TStE}{RFS} = \text{MAWP, PSIG}$$

**Where:**

TS	=	Ultimate tensile strength of shell plates, PSI
R	=	Inside radius of the weakest course of the shell or drum, inches.
t	=	Minimum thickness of shell plates in weakest course, inches.
E	=	Efficiency of longitudinal joint, as calculated in the ASME Boiler and Pressure Vessel Code adopted in Chapter 73 of the Program's rules.
FS	=	Factor of Safety allowed by Paragraph A.

- A. **Factor of Safety.** The factor of safety must be at least five (5).
- B. **Tensile Strength.** When the tensile strength of steel or wrought-iron shell plates is not known, it must be assumed to be 55,000 PSI for steel and 45,000 PSI for wrought iron.
- C. **Strength of Rivets.** Calculations concerning riveted joints must be those established by the ASME Boiler and Pressure Vessel Code adopted in Chapter 73 of these rules, or as approved by the director.

## SECTION 7. Pitch Horizontal Firetube Boilers

Horizontal firetube boilers must be pitched toward the blow-off outlet not less than one (1) inch for each ten (10) feet of tube length when set.

## SECTION 8. Manual Dampers

Fully closable manual dampers are prohibited on automatically fired low pressure boilers. The owner must ensure that any such existing dampers are removed.

---

AUTHORITY: 32 M.R.S. §§ 15103-A, 15102

EFFECTIVE DATE:



**02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION**  
**41 OFFICE OF PROFESSIONAL AND OCCUPATIONAL REGULATION**  
**BOILER AND PRESSURE VESSEL SAFETY PROGRAM**

**Chapter 76: PRESSURE VESSELS**

---

**Summary:** This Chapter establishes requirements for the design, construction, installation, inspection, and operation of pressure vessels.

---

**SECTION 1. New Installations**

**1. Registration and Certification**

Before any pressure vessel is operated in the State of Maine, the owner of the pressure vessel must register the pressure vessel with the director and must obtain a current, valid inspection certificate for the pressure vessel.

**2. Installation Inspections**

A. **Notice.** Before placing a new pressure vessel in service, the owner of a pressure vessel must notify the State, and, when applicable, the owner's insurance company.

B. **Inspection.** An Inspector must conduct the initial inspection of a pressure vessel in accordance with the applicable code adopted in Chapter 73 of these rules. The initial inspection must consist of an external inspection. The Inspector must report the results of the inspection to the director on a form approved by the director.

**3. Relocation**

Before a relocated pressure vessel is installed, the owner must petition the chief inspector for a variance in accordance with Chapter 71 of these rules for approval of the installation. The chief inspector must perform the initial inspection of a relocated pressure vessel. Regardless of the type of inspection completed, the chief inspector must determine that the pressure vessel's material thickness and conditions are appropriate for the design and intended operating conditions.

**SECTION 2. Existing Pressure Vessels**

1. If an existing pressure vessel has not yet been registered, an Inspector must perform an initial inspection to determine the vessel's external condition and the

adequacy of the safety relieving devices. The Inspector must ensure the material thickness of the shell and/or head is adequate to safely operate at the MAWP of the pressure vessel. The Inspector must submit a report of inspection to the chief inspector on a form approved by the director.

2. Any pressure vessel installed on or before June 30, 1974, must be adequately designed for its intended use. An owner seeking to register such a pressure vessel must provide the chief inspector with a copy of the manufacturer's data report relating to the vessel, a copy of the construction details with material specifications, and any other information or materials requested by the chief inspector.
3. Any pressure vessel installed after June 30, 1974 must be constructed in accordance with ASME Code in effect at the time of construction.
4. Any pressure vessel installed after July 1, 1998 must be stamped and registered with the National Board.

### **SECTION 3. Registration Numbers**

1. **Display; Not Transferable.** The assigned State of Maine registration number must appear on each pressure vessel at all times. The registration number assigned to a pressure vessel may not be transferred to another pressure vessel.
2. **Registration Number.** The Inspector must place the assigned State of Maine registration number, preceded by the letters "PV," on a self-locking tag issued by the director and must affix the tag in the vicinity of the manufacturer's name plate.
3. **Group of Pressure Vessels.** For purposes of assignment of a registration number, the director may consider a group of pressure vessels, such as the rolls of a paper machine or a dryer operating as a single machine or unit, to be one pressure vessel. In that event, the group of pressure vessels must be assigned a single master registration number and the individual pressure vessels must be assigned separate registration numbers related to the master registration number. The owner must pay a certificate fee for only a single pressure vessel.

### **SECTION 4. Periodic Inspections of Pressure Vessels**

1. **Inspection Methods and Frequency.**
  - A. **Pressure Vessels Generally.** Before the initial inspection certificate expires, and every three (3) years thereafter, pressure vessels in the State must be inspected as follows:

- (1) An Inspector must perform a certificate inspection of the pressure vessel;

and

- (2) When construction permits, the triennial certificate inspection must be internal. In the event that an internal inspection is not feasible due to construction features, the Inspector must use an alternative method of determining material thickness of the shell and/or head.

**B. Water Heaters Located in Schoolhouses.** Before the initial inspection certificate expires, and every twelve (12) months thereafter, water heaters located in schoolhouses in the State must be inspected as follows:

- (1) An Inspector must perform a certificate inspection of the water heater located in the schoolhouse; and
- (2) The annual certificate inspection must be internal whenever construction permits. In the event that an internal inspection is not feasible due to construction features, the Inspector must use an alternative method of determining material thickness of the shell and/or head.

“Water heaters located in schoolhouses” mean fired storage water heaters located in schoolhouses that are not exempt pursuant to 32 M.R.S. § 15102(2)(I).

2. **Report.** The Inspector must submit to the director a report of each inspection performed pursuant to Section 4, Subsection 1 of this Chapter on a form approved by the director.
3. **Exception.** Those companies that are participating in the TAPPI Paper Machine Dryer Can Inspection Program may request permission to be issued an inspection certificate from the director upon verification by the Inspector that the company is adhering to the TAPPI standards.

## **SECTION 5. MAWP of Existing Pressure Vessels Not Constructed to Code**

1. The MAWP on the shell of a pressure vessel or drum shall be determined by the strength of the weakest course computed from the thickness of the plate, the tensile strength of the plate, the efficiency of the longitudinal joint, the inside diameter of the course, and the factor of safety allowed by Paragraph A of Section 5, Subsection 1 of this Chapter. The formula for determining MAWP is as follows:

$$\text{TStE} = \text{MAWP, PSIG} \\ \text{RFS}$$

**Where:**

TS	=	Ultimate tensile strength of shell plates, PSI
R	=	Inside radius of the weakest course of the shell or drum, inches.
T	=	Minimum thickness of shell plates in weakest course, inches.
E	=	Efficiency of longitudinal joint, as calculated in the ASME Boiler and Pressure Vessel Code adopted in Chapter 73 of the Program's rules.
FS	=	Factor of Safety allowed by subsection A.

- A. **Factor of Safety.** The factor of safety must be at least five (5).
- B. **Tensile Strength.** When the tensile strength of steel or wrought-iron shell plates is not known, it must be assumed to be 55,000 PSI for steel and 45,000 PSI for wrought iron.
- C. **Strength of Rivets.** Calculations concerning riveted joints must be those established by the ASME Boiler and Pressure Vessel Code as adopted in Chapter 73 of these rules, or as approved by the director.

**SECTION 6. Pressure Vessel Point of Contact**

Whenever a pressure vessel is installed at a plant, the owner must comply with Chapter 78, Section 10 of these rules.

**SECTION 7. Modified Pressure Vessels**

When any major pressure retaining item is changed on an existing pressure vessel, the change must be considered an alteration as set forth in Chapter 77.

---

AUTHORITY: 32 M.R.S. §§ 15102, 15103-A, 15105

EFFECTIVE DATE:

**02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION**  
**41 OFFICE OF PROFESSIONAL AND OCCUPATIONAL REGULATION**  
**BOILER AND PRESSURE VESSEL SAFETY PROGRAM**

**Chapter 77: REPAIRS AND ALTERATIONS**

---

**Summary:** This Chapter establishes requirements for performing welded repairs, mechanical replacement of pressure parts, and alterations on boilers or pressure vessels.

---

**SECTION 1. Generally**

An owner shall obtain permission from the Inspector responsible for the jurisdictional inspection of the object prior to making any repair or replacement that affects the pressure retaining capability of a boiler or pressure vessel.

In the event that the Inspector responsible for the jurisdictional inspection of the object is unavailable, permission may be obtained by contacting the chief inspector.

**SECTION 2. Welded Repairs and Alterations**

1. All welded repairs and alterations to a boiler or a pressure vessel must be performed as follows:
  - A. By an appropriate R Certificate Holder; and
  - B. In accordance with the applicable standards specified in Chapter 73, Section 1, Subsection 3 of these rules. In those cases where it is not possible to complete welded repairs and alterations in accordance with the applicable standards specified in Chapter 73, Section 1, Subsection 3 of these rules, the chief inspector shall be consulted.
2. All alteration plans must be submitted to the chief inspector on a form approved by the director at least thirty (30) days prior to the alteration. Emergency situations will be handled on a case-by-case basis. If an emergency situation makes it not practicable to submit alteration plans in advance, the chief inspector must be notified.
3. The R Certificate Holder performing a repair or alteration must submit legible copies of the forms documenting the welded repair or alteration to the director within sixty (60) days of completing the work.

4. Routine repairs shall be completed as required in the NBIC as adopted by the director in Chapter 73, or any equivalent standard as approved by the director.

### **SECTION 3. Low Pressure Boiler Repair or Replacement by Mechanical Attachment**

Boiler tube work must be completed by an R Certificate Holder. Mechanical attachment of piping and components on low pressure boilers must be completed by appropriately licensed individuals.

### **SECTION 4. Power Boiler Repair or Replacement by Mechanical Attachment**

1. The mechanical attachment of piping and components within the code boundary on power boilers associated with the major boiler systems must be completed by an R Certificate Holder. Major boiler systems consist of the main steam system or equivalent, the feedwater system, the blow-down system, and any repairs or replacements associated with tubes.
  - A. The owner shall submit documentation on each repair/replacement on the Mechanical Repair Form approved by the director.
  - B. The documentation shall include material traceability and verification of the construction standard.
  - C. A hydrostatic test to verify mechanical integrity shall be conducted upon completion of the repair/replacement.
    - (1) The minimum permissible metal temperature during the hydrostatic test shall conform with the applicable standards adopted in Chapter 73 of these rules.
    - (2) The test pressure shall be at least normal operating pressure of the object.
  - D. The Inspector responsible for the jurisdictional inspection of the object must document all mechanical repairs on a form approved by the director.
2. The mechanical attachment of piping and components within the code boundary on power boilers not associated with the major boiler systems may be performed by individuals under the supervision of the engineer-in-charge.
  - A. The owner shall submit documentation on each repair/replacement on the Mechanical Repair Form approved by the director.
  - B. The documentation shall include material traceability and verification of the construction standard.

- C. A hydrostatic test to verify mechanical integrity shall be conducted upon completion of the repair/replacement.
  - 1. The minimum permissible metal temperature during the hydrostatic test shall be as required by the conform with the applicable standards adopted in Chapter 73 of these rules.
  - 2. The test pressure shall be at least normal operating pressure of the object.
  
- D. The Inspector responsible for the jurisdictional inspection of the object must document all mechanical repairs on a form approved by the director.

---

AUTHORITY: 32 M.R.S. §§ 15103-A and 15110

EFFECTIVE DATE:

02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION

41 OFFICE OF PROFESSIONAL AND OCCUPATIONAL REGULATION

**BOILER AND PRESSURE VESSEL SAFETY PROGRAM**

**Chapter 78: DUTIES AND RESPONSIBILITIES OF OWNERS OF BOILERS AND PRESSURE VESSELS**

---

**Summary:** This Chapter establishes general duties of owners of boilers and pressure vessels, in addition to what is required by statute.

---

**SECTION 1. Application for Inspection Certificates**

1. **Initial Inspection.** The owner of a boiler or pressure vessel must ensure that an initial inspection is conducted on a newly installed or relocated boiler or pressure vessel in accordance with the applicable provisions of Chapters 74, 75 or 76 of these rules.
2. **Annual Inspection of Boilers.** The owner of a boiler must ensure that the boiler is inspected annually and that the inspection is completed before the expiration of the current inspection certificate.
3. **Periodic Inspection of Pressure Vessels.**
  - A. **Pressure Vessels Generally.** The owner of a pressure vessel must ensure that the pressure vessel is inspected every three (3) years and that the inspection is completed before the expiration of the current inspection certificate.
  - B. **Water Heaters Located in Schoolhouses.** The owner of a water heater located in a schoolhouse must ensure that the water heater is inspected every twelve (12) months and that the inspection is completed before the expiration of the current inspection certificate. “Water heaters located in schoolhouses” mean fired storage water heaters located in schoolhouses that are not exempt pursuant to 32 M.R.S. § 15102(2)(I).
4. **Late Fees.** The owner must ensure that the boiler or pressure vessel is inspected in sufficient time to permit compliance with this Section. The director may assess a late inspection certificate fee against the owner if the inspection report is not submitted within sixty (60) days after the date the current inspection certificate expires. The director may also assess a late certificate fee if the owner fails to submit the certificate fee within sixty (60) days of notification from the director that the certificate fee is due.



5. **Rejection of Reports.** The chief inspector may reject any inspection report that is incomplete or illegible or that otherwise fails to comply with the requirements of Title 32, Chapter 131 or the Program's rules. If the chief inspector rejects the report, the owner will be notified and provided with a statement of the reasons for rejection.

## SECTION 2. Expiration of Inspection Certificates

### 1. Date of Expiration

- A. **Boilers.** Annual inspection certificates for boilers expire on the last day of the month when the unit was last inspected and expire annually thereafter on the last day of that month, unless the owner petitions the chief inspector to change the month of inspection on a form provided by the director.

- B. **Pressure Vessels.**

- (1) **Pressure Vessels Generally.** Triennial inspection certificates for pressure vessels expire on the last day of the month when the unit was last inspected and expire every three (3) years thereafter on the last day of the month, unless the owner petitions the chief inspector to change the month of inspection on a form provided by the director.

- (2) **Water Heaters Located in Schoolhouses.** Annual inspection certificates for water heaters located in schoolhouses expire on the last day of the month when the unit was last inspected and expire annually thereafter on the last day of that month, unless the owner petitions the chief inspector to change the month of inspection on a form provided by the director. "Water heaters located in schoolhouses" mean fired storage water heaters located in schoolhouses that are not exempt pursuant to 32 M.R.S. § 15102(2)(I).

2. **Suspension of Operation.** If an inspection report has not been submitted to the director within sixty (60) days of the expiration of the most recent inspection certificate, or if the owner has not paid the inspection certificate fee within sixty (60) days after receiving notification that the inspection report has been received by the director, or if repairs to a boiler or pressure vessel are not made within the time prescribed by the director or the chief inspector, the owner must suspend operation of the boiler or pressure vessel until the director issues a new inspection certificate.

### SECTION 3. Orders of Correction

When the chief inspector issues an order of correction to an owner stating that a boiler or pressure vessel requires repair, the owner must submit satisfactory written evidence that the repairs have been completed by the time specified. The chief inspector must not issue a new inspection certificate for a boiler or pressure vessel that requires repair.

### SECTION 4. Change of Status

1. **Owner.** An owner must report to the Board any change in the owner's address, e-mail address or telephone number within thirty (30) days of the change.
2. **Boiler or Pressure Vessel.** An owner must report to the director any change of status with respect to a boiler or pressure vessel within thirty (30) days of the change. As used in this subsection, "change of status" means transfer of ownership, relocation, physical removal, or placement out of service.

### SECTION 5. Accidents

1. **Reporting of Accidents**
  - A. **Initial Report.** No later than twenty-four (24) hours after a reportable accident occurs, the owner of the boiler or pressure vessel must notify the chief inspector and, if applicable, the insurance company. The report must include: (1) the owner's name; (2) the location of the accident; (3) a brief statement of facts surrounding the accident; and (4) the name and telephone number(s) of the person(s) to be contacted regarding the accident.
  - B. **Additional Information.** After making the initial report required by Section 5, Subsection 1, Paragraph A of this Chapter, the owner of a boiler or pressure vessel involved in a reportable accident must provide to the chief inspector any additional information requested by the chief inspector regarding the accident or the boiler or pressure vessel.
2. **Maintenance of Accident Site.** When a reportable accident occurs, no parts or appurtenances may be removed or their position changed unless necessary for the protection of life, limb, or property until the chief inspector has conducted their investigation.
3. **Suspension of Operation.** When a reportable accident occurs, the owner must immediately suspend operation of the boiler or pressure vessel, and the boiler or pressure vessel must remain out of operation until the chief inspector has approved resumption of operation.

#### 4. **Examination and Determination.**

- A. **Examination.** When a reportable accident occurs that results in significant injury to a person or substantial damage to equipment and/or property, the chief inspector must examine the boiler or pressure vessel and the circumstances surrounding the accident. The chief inspector may designate one or more individuals to assist in the examination.

When a reportable accident occurs that involves equipment failure of a boiler or pressure vessel and does not result in significant injury to a person or substantial damage to equipment, the chief inspector may authorize an Inspector or other individual(s) to examine the boiler or pressure vessel and to report to the chief inspector the findings from the examination.

- B. **Determination.** After the chief inspector has examined, or has caused to be examined, the boiler or pressure vessel and the circumstances surrounding the reportable accident, the chief inspector must:
- (i) Approve the resumption of operation;
  - (ii) Direct that the owner suspend operation until required repairs have been made;
  - (iii) Summarily revoke the inspection certificate in accordance with 32 M.R.S. § 15119(2); or
  - (iv) Take other action that the chief inspector deems appropriate to ensure the safety of the public.

#### **SECTION 6. Unsafe Conditions**

If an owner becomes aware of an unsafe condition involving a boiler or pressure vessel, the owner immediately must notify the chief inspector in accordance with the procedure for reporting accidents specified in Section 5 of this Chapter.

#### **SECTION 7. Placing a Boiler or Pressure Vessel Out of Service**

1. **Boiler.** When an owner voluntarily places a boiler out of service, is required to place a boiler out of service in accordance with Title 32, Chapter 131 or Program rules, or is told by the director or the chief inspector to place a boiler out of service, the owner must:
- A. Disconnect the fuel supply, if applicable; and
  - B. Disconnect the electrical power to the unit.

The owner must ensure that the work required by Section 7, Subsection 1, Paragraphs A and B is done under the supervision of the engineer-in-charge for a power boiler, or by a technician appropriately licensed with the Maine Fuel Board for a low pressure boiler.

2. **Pressure Vessel.** When an owner voluntarily places a pressure vessel out of service, is required to place a pressure vessel out of service in accordance with Title 32, Chapter 131 or Program rules, or is told by the director or chief inspector to place a pressure vessel out of service, the owner must:
  - A. Disconnect the source of pressure input; and
  - B. Remove the relief valve.

The owner must ensure that the work required by Section 7, Subsection 2, Paragraphs A and B is done by an individual who is familiar with the hazards associated with the particular pressure vessel.

## **SECTION 8. Personnel for Power Boilers**

1. The owner of a plant operating a power boiler must designate a person to be the engineer-in-charge of the plant. The designated person must have an appropriate license for the plant based on the classes of licensure specified in 32 M.R.S. § 15109.
2. The owner of a power boiler must, at the time of installation and upon any change in the identity of the engineer-in-charge, inform the Program in writing of:
  - (1) The name(s) and address(s) of any person(s) designated engineer(s)-in-charge;
  - (2) The date when each person designated engineer-in-charge assumed that position; and
  - (3) The precise location and the registration number(s) of the power boiler(s) each engineer-in-charge will oversee.

## **SECTION 9. Heating Boilers**

The owner must ensure that heating boilers are properly maintained by appropriately licensed individuals to ensure safe and reliable operation at all times.

**SECTION 10. Personnel for Pressure Vessels**

1. Regardless of the number of pressure vessels installed at a plant, the owner remains responsible for ensuring that the pressure vessels are maintained and operated in a safe condition.
2. Whenever ten (10) or more pressure vessels are installed at a plant, the following requirements apply:
  - A. The owner must assign an individual who is responsible for ensuring that the pressure vessels are maintained and operated in a safe condition as required by these rules; and
  - B. Duties relating to the operation and maintenance of the pressure vessels must be performed under the direct authority of the individual assigned responsibility in accordance with Section 10, Subsection 2, Paragraph A of this Chapter.

**SECTION 11. Tests**

An Inspector may at any time require an accumulation test or other test to determine if a boiler or pressure vessel is operating properly.

**SECTION 12. Inspection Certificate**

1. Subject to the provisions of 32 M.R.S. § 15121(1) and (2), an owner may not operate a boiler or pressure vessel without a current, valid inspection certificate. The director must issue inspection certificates for boilers for a period of twelve (12) months and for pressure vessels for a period of thirty-six (36) months, with the exception of water heaters located in schoolhouses. The director must issue inspection certificates for water heaters located in schoolhouses for a period of twelve (12) months. "Water heaters located in schoolhouses" mean fired storage water heaters located in schoolhouses that are not exempt pursuant to 32 M.R.S. § 15102(2)(I).
2. An owner may obtain an inspection certificate from the director if the following requirements have been satisfied:
  - A. An Inspector has inspected the boiler or pressure vessel and has submitted the report of inspection to the director;
  - B. The chief inspector has approved the inspection report; and
  - C. The director has received payment for the inspection certificate, or for the inspection if performed by the chief inspector or the deputy inspector.

3. In order to coordinate Inspectors' availability with the operating needs of the facility, the chief inspector may authorize an extension of up to two (2) months beyond the expiration date of the inspection certificate. Except in cases of emergency, a written request to operate the boiler or pressure vessel beyond the expiration date must be submitted to the chief inspector no less than fifteen (15) days before the expiration date.

### **SECTION 13. Boilers or Pressure Vessels Found to be Unsafe**

1. **Suspension of Inspection Certificate.** If an Inspector finds that a boiler or pressure vessel is unsafe to operate, the Inspector must notify the chief inspector immediately. The chief inspector must suspend the inspection certificate, and the owner must immediately suspend operation of the boiler or pressure vessel until the chief inspector approves the placing of the boiler or pressure vessel back in operation. Pursuant to 5 M.R.S. § 10004(4), a suspension issued in accordance with this paragraph is effective for a period of not more than thirty (30) days.
2. **Condemnation and Stamping.** In the event that repairs to a boiler or pressure vessel are not feasible, the chief inspector must revoke the certificate and condemn the boiler or pressure vessel. Upon condemnation, the chief inspector must stamp the boiler or pressure vessel ("XXX Me") in accordance with 32 M.R.S. § 15112, provided that the actual stamping must be stayed during the seven (7)-day period set forth in Section 13, Subsection 3 of this Chapter and during the pendency of any appeal filed with the director. Only the chief inspector may revoke a certificate and condemn a boiler or pressure vessel. Pursuant to 5 M.R.S. § 10004(4), a revocation issued in accordance with this paragraph is effective for a period of not more than thirty (30) days.
3. **Owner's Right to Appeal.** When the chief inspector suspends or revokes a certificate, the chief inspector must give the owner written notice of the owner's right to appeal the suspension or revocation to the director within seven (7) calendar days of the suspension or revocation.
4. **Appeal Hearing.** Upon receipt of a timely appeal from the owner, the director will schedule an appeal hearing pursuant to 32 M.R.S. § 15104-B. The provisions of the Maine Administrative Procedure Act relating to adjudicatory proceedings govern the hearing. The chief inspector bears the burden of proof at the appeal hearing. The boiler or pressure vessel that is the subject of the appeal must remain out of service and may not be operated during the pendency of the appeal.

### **SECTION 14. Portable Boilers**

Whenever a portable boiler is installed for temporary use, an external inspection must be completed within seventy-two (72) hours, provided the portable boiler has a current, valid inspection certificate issued by the State of Maine. If the portable boiler does not have a

current, valid inspection certificate, a certificate inspection is required prior to operation. The owner of the boiler shall arrange for the required inspections to be conducted.

**SECTION 15. General Responsibility**

Owners must ensure that all boilers, pressure vessels, and appurtenances are operated, inspected, and maintained in a condition sufficient to safely perform the work for which they were intended and are kept sufficiently clean to prevent fire hazards.

---

AUTHORITY: 32 M.R.S. §§ 15103-A, 15104-B, 15119 and 15121

EFFECTIVE DATE:

**02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION**  
**41 OFFICE OF PROFESSIONAL AND OCCUPATIONAL REGULATION**  
**BOILER AND PRESSURE VESSEL SAFETY PROGRAM**

**Chapter 79: INSPECTORS**

---

**Summary:** This Chapter establishes requirements for initial and renewal licensure of inspectors in addition to those established by 32 M.R.S. § 15120.

---

**SECTION 1. Qualifications for Licensure**

To qualify for an inspector's license, an applicant must:

1. **Application.** Submit an application to the director on a form approved by the director;
2. **National Board Examination.** Submit a copy of a valid National Board Commission;
3. **Employment.** Submit written proof that the applicant is employed by the state regulatory body having jurisdiction over boilers and pressure vessels or an insurance company licensed to insure boilers or pressure vessels in this State;
4. **Maine-Specific Examination.** Obtain a grade of at least 80% on a Maine-specific examination administered by the director; and
5. **Fee.** Submit the application fee as required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

**SECTION 2. Eligibility for Examinations**

1. **National Board Examination.** To be eligible to take the National Board examination in Maine, a person must:
  - A. Satisfy the qualifications specified by the NB-263, RCI-1, *Rules for Commissioned Inspectors* (RCI-1) (2023), published by The National Board of Boiler and Pressure Vessel Inspectors (effective January 1, 2023); and
  - B. Submit an application to take the examination on a form approved by the director.



A copy of the NB-263, RCI-1, *Rules for Commissioned Inspectors (RCI-1)* (2023) is available by visiting [www.nationalboard.org](http://www.nationalboard.org).

2. **Maine-Specific Examination.** To be eligible to take the Maine-specific examination, a person must:
  - A. Submit an application on a form provided by the director together with the fee as set forth in Chapter 10 of the rules of the Office of Professional and Occupational Regulation;
  - B. Submit a copy of the applicant's current, valid National Board Commission; and
  - C. Submit written proof that the applicant is employed by the state regulatory body having jurisdiction over boilers and pressure vessels or an insurance company licensed to insure boilers or pressure vessels in this State.

An applicant who fails to appear for a scheduled examination without notifying the director before the examination forfeits the examination fee.

### SECTION 3. Renewal of License

1. **Expiration.** All inspector licenses expire one (1) year from the date of issuance.
2. **Eligibility for Renewal.** Applications for renewal of an inspector's license must be on forms provided by the director and must be accompanied by:
  - A. Satisfactory written evidence of employment by the state regulatory body having jurisdiction over boilers and pressure vessels or an insurance company licensed to insure boilers or pressure vessels in this State;
  - B. Satisfactory written evidence of a current, valid National Board Commission; and
  - C. Any fee set forth in Chapter 10 of the rules of the Office of Professional and Occupational Regulation.

A license may be renewed up to ninety (90) days after expiration upon payment of a late fee in addition to the renewal fee.

### SECTION 4. Renewal of License Beyond 90 Days

1. **More than 90 Days but Not More than Two Years.** An individual who fails to renew an inspector's license for more than ninety (90) days but not more than two (2) years from the date of expiration may reinstate the license without taking the examination required by Section 2, Subsection 1 of this Chapter. To reinstate, an

individual must file a new application for renewal and pay the application fee, license fee, and late fee as set forth in Chapters 10 and 11 of the rules of the Office of Professional and Occupational Regulation.

2. **More than Two Years.** An individual who fails to renew an inspector's license for more than two (2) years from the date of expiration may obtain a new license by satisfying all applicable requirements of Title 32, Chapter 131 and Program rules.

## **SECTION 5. Licensure Conditioned**

An inspector's license is valid only during the time that the licensee:

1. Is employed as an inspector with the state regulatory body having jurisdiction over boilers and pressure vessels or as an inspector with an insurance company licensed to insure boilers or pressure vessels in this State; and
2. Holds a current, valid National Board Commission.

An inspector's license is no longer valid if the licensee: (A) is no longer employed by the state regulatory body having jurisdiction over boilers and pressure vessels; (B) is no longer employed by an insurance company licensed to insure boilers or pressure vessels in this State; or (C) no longer holds a current, valid National Board Commission.

## **SECTION 6. Duties of Inspectors**

1. An inspector has the right to refuse an inspection on any object which is not properly prepared for inspection or is deemed unsafe to inspect.
2. In addition to the other duties imposed by Title 32, Chapter 131 of the Maine Revised Statutes, inspectors must perform all required inspections in accordance with the requirements of this chapter and the applicable standards and codes adopted by reference in Chapter 73 of Program rules.
3. Inspectors other than the chief inspector or deputy inspector must comply with the following:
  - A. Inspect only boilers or pressure vessels that are insured by their employer.
  - B. Immediately, and in any event not later than twenty-four (24) hours after becoming aware of the condition, report to the chief inspector any unsafe condition involving a boiler or pressure vessel. Notification to the chief inspector must include: (1) the boiler inspector's name and telephone number; (2) the location and registration number of the boiler or pressure vessel; (3) the name of the owner; and (4) the nature of the unsafe condition. The boiler inspector must provide the chief inspector any

additional information requested by the chief inspector regarding the unsafe condition of the boiler or pressure vessel.

- C. If an inspection of a newly insured location reveals conditions that result in the insurance company's refusal to insure a boiler or pressure vessel, the inspector must submit to the director a written report describing in detail each such condition within ten (10) days after becoming aware of the condition or condition(s).
  - D. Report to the chief inspector any boiler or plant at which:
    - (1) The boiler operator or stationary steam engineer holds no license or holds a license of a lower class than required by 32 M.R.S. § 15109; or
    - (2) The attendance requirements of Chapter 80, Section 5 of these rules are not being met.
- 

AUTHORITY: 32 M.R.S. §§ 15103-A, 15120

EFFECTIVE DATE:

**02 DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION**

**41 OFFICE OF PROFESSION AND OCCUPATIONAL REGULATION**

**BOILER AND PRESSURE VESSEL SAFETY PROGRAM**

**Chapter 80: BOILER OPERATORS AND STATIONARY STEAM ENGINEERS**

---

**Summary:** This chapter establishes requirements for licensure and responsibilities of boiler operators and stationary steam engineers.

---

**SECTION 1. Application for Examination**

1. Except as otherwise permitted by Title 32, Chapter 131 of the Maine Revised Statutes, an individual must first pass an examination to qualify for licensure as a boiler operator or stationary steam engineer.
2. An individual seeking to take the required examination must submit:
  - A. An application on a form approved by the director; and
  - B. Evidence that the applicant has the experience, education or combination thereof required by 32 M.R.S. § 15109(7)(B)-(I) for that grade or class of license at the time the applicant applies for examination.
    - (1) Experience must consist of high pressure boiler experience, excluding miniature electric boiler experience.
    - (2) Proof of satisfactory completion of a director-approved high pressure boiler operator's technical training course shall be considered equivalent to three (3) months of high pressure boiler experience.
3. The examination is administered by a vendor designated by the director. Once an individual is notified by Program staff that they are approved to sit for the examination, the applicant shall contact the vendor directly to arrange to sit for the examination and pay any required fees directly to the examination vendor.
4. Eligibility for examination remains valid for a period of two (2) years from the date of approval to sit for examination. An applicant who fails to pass the examination within two (2) years of approval must reapply as a new applicant.
5. The passing grade on any examination is 70%.

## SECTION 2. Application for Licensure

1. To obtain a license, all applicants shall submit an application on a form approved by the director and the license fees required by Chapter 10 of the rules of the Office of Professional and Occupational Regulation. The director reserves the right to require an applicant to submit any other information needed to evaluate their application and qualifications for licensure.
2. If an applicant fails to apply for a license within two (2) years from the date of notification of a passing score on the examination, the applicant must reapply as a new applicant and retake the examination.
3. Applications will not be acted on until the application is complete. If an applicant does not remedy the deficiencies described by Program staff within a designated timeframe, the application may be voided and the application would need to submit a new application and any required fee to reapply.

## SECTION 3. Renewal of License

1. **Expiration.** Except for boiler operator training permits, all licenses issued under this Chapter expire three (3) years from the date of issuance. Boiler operator training permits are issued for a one (1) year nonrenewable term.
2. **Eligibility for Renewal.** Applications for renewal of a license governed by this Chapter must be on a form provided by the director and must be accompanied by the fee as set forth in Chapter 10 of the rules of the Office of Professional and Occupational Regulation. A license may be renewed up to ninety (90) days after expiration upon payment of a late fee in addition to the renewal fee.

## SECTION 4. Renewal of License Beyond 90 Days

1. **More than 90 Days but Not More than Two Years.** An individual who fails to renew a boiler operator or stationary steam engineer's license for more than ninety (90) days but not more than two (2) years from the date of expiration may renew the license without taking the examination required by Section 1 of this chapter. To renew, an individual must file an application for renewal and pay the license fee, and additional late fees as set forth in chapters 10 and 11 of the rules of the Office of Professional and Occupational Regulation.
- B. **More than Two Years.** An individual who fails to renew a license governed by this Chapter for more than two (2) years from the date of expiration may obtain a new license by satisfying the requirements of Title 32, Chapter 131 of the Maine Revised Statutes, and Sections 1 and 2 of this Chapter.

## SECTION 5. Attendance Requirements for Power Boilers

If a plant can simultaneously be classified as more than one type of plant (power, process, or heating), attendance requirements must meet the most stringent attendance requirements based on operational conditions.

The following rules govern the required power boiler attendance requirements of licensed boiler operators and/or stationary steam engineers, with consideration of the method of firing fuels, equipment, or machinery being supplied, or the occupation of the building being served:

1. **Stationary Steam Engineer Duties.** A licensed stationary steam engineer's duties include the observation and manipulation of mechanical, automatic, or remote controls and the testing, clearing, and blow-down or draining of these controls to ensure proper operation of these devices. A stationary steam engineer may also undertake routine cleaning of any boiler and its fuel burning equipment.
2. **Manual Boilers.** Manual boilers must be constantly monitored while in operation by an appropriately licensed individual.
3. **Automatic Boilers.** If a plant can simultaneously be classified as more than one type of plant (power, process, or heating), attendance requirements must meet the most stringent attendance requirements based on possible types of plant and operational conditions.

For the purposes of this subsection, "aggregate heat input" is the potential heat input of the plant based on the capacity of the installed boilers connected to a single plant.

- A. Power Plant. Boilers located in power plants must be constantly monitored while in operation by an appropriately licensed individual.
- B. Process Plant.
  - (1) Boilers located in process plants with **1,000,000 BTU/hour or more aggregate heat input** must be monitored at least every two (2) hours while in operation by an appropriately licensed individual.
  - (2) Boilers located in process plants with **less than 1,000,000 BTU/hour aggregate heat input** must be monitored at least every 8 hours while in operation by an appropriately licensed individual.

Steam kettles used in cooking are considered process units.

- C. Heating Plant. The attendance and monitoring requirements for heating plants are applicable when the boiler is in use and the school or building is open for public use. Any boiler located in a heating plant with **1,000,000 BTU/hour or more aggregate heat input** must be monitored at least every eight (8) hours while in operation by an appropriately licensed individual. Any boiler located in a heating plant with **less than 1,000,000 BTU/hour aggregate heat input** must be monitored at least once every twenty-four (24) hours while in operation by an appropriate licensed individual. Only properly licensed stationary steam engineers may change the controls on a high pressure boiler to operate as a low pressure boiler and vice versa.
- D. Process plants and heating plants that are operated as a low pressure boiler do not have mandatory attendance requirements; however, the boiler must be operated and maintained in a safe condition.

## **SECTION 6. Unsafe Conditions**

A licensed boiler operator or stationary steam engineer must report an unsafe condition involving a boiler or pressure vessel to the chief inspector immediately and in any event not later than twenty-four (24) hours after becoming aware of the condition. Notification to the chief inspector must include the licensee's name and telephone number, the location and registration number of the boiler or pressure vessel, the name of the owner, and the nature of the unsafe condition. The licensee must provide the chief inspector any additional information requested regarding the unsafe condition of the boiler or pressure vessel.

## **SECTION 7. Engineers-in-Charge (Duties and Responsibilities)**

1. Persons designated engineers-in-charge are responsible for the safe and proper operation and maintenance of the power boilers over which they have charge. The engineer-in-charge has the responsibility to ensure that each plant is properly staffed for safe operation. The guidelines established in rule for attendance requirements are a minimum.
2. Duties relating to the operation and maintenance of a power boiler must be performed by a stationary steam engineer under the direct authority of the engineer-in-charge.
3. On each regularly scheduled work day, the engineer-in-charge must visit the plant and leave instructions for the stationary steam engineers who will operate the power boiler. On those days that the engineer-in-charge is not scheduled to work, the engineer-in-charge must leave written instructions for the stationary steam engineers. The instructions provided by the engineer-in-charge must be made available to the chief inspector upon request.

4. The engineer-in-charge must train other stationary steam engineers under the supervision of the engineer-in-charge.
  5. The engineer-in-charge must maintain a bound engineer's log book in ink and must ensure that the log book is maintained to adequately document plant operating parameters. An electronic log book is acceptable. A copy must be maintained for a minimum of five (5) years.
- 

AUTHORITY: 32 M.R.S. §§ 15103-A, 15109

EFFECTIVE DATE: