

## BOILERS AND UNFIRED STEAM PRESSURE VESSELS

### 89.1 Authority.

The labor commissioner shall enforce the provisions of this chapter and may employ qualified personnel under the provisions of chapter 8A, subchapter IV, to administer the provisions of this chapter.

The provisions of this chapter shall apply to all boilers and unfired steam pressure vessels in this state, except as otherwise provided in this chapter.

[C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 89.1]

2003 Acts, ch 145, §161

### 89.2 Definitions.

For the purpose of this chapter unless the context otherwise requires:

1. "*ASME code*" means the boiler and pressure vessel code published by the American society of mechanical engineers.
2. "*Board*" means the boiler and pressure vessel board created in section 89.14.
3. "*Boiler*" means a vessel in which water or other liquids are heated, steam or other vapors are generated, steam or other vapors are superheated, or any combination thereof, under pressure or vacuum by the direct application of heat.
4. "*Commissioner*" means the labor commissioner or the labor commissioner's designee.
5. "*Exhibition boiler*" means a boiler which is operated in the state for nonprofit purposes including, but not limited to, exhibitions, fairs, parades, farm machinery shows, or any other event of an historical or educational nature. An "*exhibition boiler*" includes steam locomotives, traction and portable steam engines, and stationary boilers of the firetube, watertube, and returntube class, model or miniature, and may be riveted, riveted and welded, or all welded construction, if used within the state solely for nonprofit purposes.
6. "*Power boiler*" means a boiler in which steam or other vapor is generated at a pressure of more than fifteen pounds per square inch or a water boiler intended for operation at pressures in excess of one hundred sixty pounds per square inch or temperatures in excess of 250 degrees F.
7. "*Public assembly*" means the assembly of people in any of the following:
  - a. A building or structure primarily used as a theater, motion picture theater, museum, arena, exhibition hall, school, college, dormitory, bowling alley, physical fitness center, family entertainment center, lodge hall, union hall, pool hall, casino, place of worship, funeral home, institution of health and custodial care, hospital, or child care or adult day services facility.
  - b. A building or structure, a portion of which is primarily used for amusement, entertainment, or instruction.
  - c. A building or structure owned by or leased to the state or any of its agencies or political subdivisions.

However, for purposes of this chapter, "*public assembly*" does not include the assembly of people in buildings or structures containing only eating and drinking establishments or in any building used exclusively by an employer for training or instruction of its own employees.

8. "*Special inspector*" means an inspector who holds a commission from the commissioner and who is not a state employee.

9. "*Steam heating boiler*" means a boiler operating at not more than fifteen pounds per square inch; or a hot water heating boiler operating at not more than one hundred sixty pounds per square inch and not more than 250 degrees F. at the boiler outlet.

10. "*Unfired steam pressure vessel*" means a vessel or container used for the containment of steam pressure either internal or external in which the pressure is obtained from an external source.

[C62, 66, 71, 73, 75, 77, § 89.12; C79, 81, § 89.2]

89 Acts, ch 321, § 26; 92 Acts, ch 1098, § 3; 2000 Acts, ch 1097, §1; 2001 Acts, ch 24, §26; 2001 Acts, ch 64, §1; 2004 Acts, ch 1107, §2, 30

### **89.3 Inspection made certificate.**

1. It shall be the duty of the commissioner, to inspect or cause to be inspected internally and externally, at least once every twelve months, except as otherwise provided in this section, in order to determine whether all such equipment is in a safe and satisfactory condition, and properly constructed and maintained for the purpose for which it is used, all boilers and unfired steam pressure vessels operating in excess of fifteen pounds per square inch, all low pressure heating boilers and unfired steam pressure vessels located in places of public assembly and other appurtenances used in this state for generating or transmitting steam for power, or for using steam under pressure for heating or steaming purposes.

2. The commissioner may enter any building or structure, public or private, for the purpose of inspecting any equipment covered by this chapter or gathering information with reference thereto.

3. Upon making an inspection of any equipment covered by this chapter, the commissioner shall issue to the owner or user thereof a certificate of inspection which certificate shall be posted at a place near the location of the equipment.

4. The owner or user of any equipment covered in this chapter, or persons in charge of same, shall not allow or permit a greater pressure in any unit than is stated in the certificate of inspection issued by the commissioner.

5. The commissioner may inspect boilers and tanks and other equipment stamped with the American society of mechanical engineers code symbol for other than steam pressure, manufactured in Iowa, when requested by the manufacturer.

6. Each boiler of one hundred thousand pounds per hour or more capacity, unfired steam pressure vessel or regulated appurtenance used or proposed to be used within this state, which contains only water subject to internal continuous water treatment under the direct supervision of a graduate engineer or chemist, or one having equivalent experience in the treatment of boiler water where the water treatment is for the purpose of controlling and limiting serious corrosion and other deteriorating factors, and with respect to which vessel the commissioner has determined that the owner or user has complied with the recordkeeping requirements prescribed in this chapter, shall be inspected at least once every two years internally and externally while not under pressure, and at least once every two years externally while under pressure. At any time a hydrostatic test is deemed necessary to determine the safety of a vessel, the tests shall be conducted by the owner or user of the equipment under the supervision of the commissioner.

7. The owner or user of a boiler of one hundred thousand pounds per hour or more capacity, unfired steam

pressure vessel or regulated appurtenance desiring to qualify for biennial inspection shall keep available for examination by the commissioner accurate records showing the date and actual time the vessel is out of service and the reason it is out of service, and the chemical physical laboratory analyses of samples of the vessel water taken at regular intervals of not more than forty-eight hours of operation as will adequately show the condition of the water and any elements or characteristics of the water which are capable of producing corrosion or other deterioration of the vessel or its parts.

8. Internal inspections of sectional cast iron steam and cast iron hot water heating boilers shall be conducted only as deemed necessary by the commissioner. External operating inspections shall be conducted annually.

9. Internal inspections of steel hot water boilers shall be conducted once every six years. The initial inspection of all affected boilers shall be apportioned by the commissioner over the six-year period after July 1, 1978. External operating inspections shall be conducted annually.

10. Internal inspections of unfired steam pressure vessels operating in excess of fifteen pounds per square inch shall be conducted once every two years. External inspections shall be conducted annually. An internal inspection of an unfired steam pressure vessel may be required at any time by the commissioner upon the observation by an inspector of conditions, enumerated by the commissioner through rules, warranting an internal inspection.

11. All power boilers that are converted to low pressure boilers shall have a fifteen pound safety valve installed and be approved by the commissioner no later than thirty days after the expiration date of the certificate for the boiler.

12. An exhibition boiler does not require an annual inspection certificate but special inspections may be requested by the owner or an event's management to be performed by the commissioner. Upon the completion of an exhibition boiler inspection a written condition report shall be prepared by the commissioner regarding the condition of the exhibition boiler's boiler or pressure vessel. This report will be issued to the owner and the management of all events at which the exhibition boiler is to be operated. The event's management is responsible for the decision on whether the exhibition boiler should be operated and shall inform the division of labor of the event's management's decision. The event's management is responsible for any injuries which result from the operation of any exhibition boiler approved for use at the event by the event's management. A repair symbol, known as the "R" stamp, is not required for repairs made to exhibition boilers pursuant to the rules regarding inspections and repair of exhibition boilers as adopted by the commissioner, pursuant to chapter 17A.

13. An inspection report created pursuant to this chapter that requires modification, alteration, or change shall be in writing and shall cite the state law or rule or the ASME code section allegedly violated.

[C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, § 89.2; C79, 81, § 89.3]

85 Acts, ch 105, §1; 89 Acts, ch 321, § 27; 97 Acts, ch 27, § 1; 2004 Acts, ch 1107, §3, 30

#### **89.4 Exemptions.**

1. The provisions of this chapter shall not apply to the following boilers:

- a. Boilers of railway locomotives subject to federal inspection.
- b. Boilers operated and regularly inspected by railway companies operating in interstate commerce.
- c. Boilers under the jurisdiction and subject to inspection by the United States government.

*d.* Steam heating boilers and unfired steam pressure vessels associated therewith and mobile power boilers used exclusively for agricultural purposes.

*e.* Heating boilers in residences.

*f.* Fire engine boilers brought into the state for temporary use in times of emergency.

*g.* Low pressure heating boilers used in buildings other than those for public assembly.

*h.* Hot water heating boilers used for heating pools or spas regulated by the department of public health pursuant to chapter 135I.

2. Unfired steam pressure vessels not exceeding the following limitations are not required to be reported to the commissioner and shall be exempt from regular inspection under provisions of this chapter:

*a.* A vessel not greater than five cubic feet in volume and not having a pressure greater than two hundred fifty pounds per square inch.

*b.* A vessel not greater than one and one-half cubic feet in volume with no limit on pressure.

3. Internal inspections shall not be required on unfired steam pressure vessels where they have been manufactured without inspection plate and where it would be necessary for them to be drilled in order to be inspected. The existence of such unfired pressure vessels shall be reported to the commissioner, and certified by the commissioner that the unfired pressure vessel is in a satisfactory condition for the purpose for which it is used.

4. Jacketed direct or indirect fired vessels built and installed in accordance with the American society of mechanical engineers code, section VIII, division 1, appendix 19, shall not be considered boilers or power boilers for purposes of this chapter and shall not be required to meet the American society of mechanical engineers standard for controls and safety devices for automatically fired boilers. However, jacketed direct or indirect fired vessels as described in this subsection shall be subject to inspection under section 89.3 as pressure vessels.

[C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, § 89.3; C79, 81, § 89.4]

92 Acts, ch 1098, § 4; 98 Acts, ch 1222, §21, 28; 2005 Acts, ch 47, §1

### **89.5 Rules records.**

1. The commissioner shall investigate and record the cause of any boiler explosion that may occur in the state, the loss of life, injuries sustained, and estimated loss of property, if any; and such other data as may be of benefit in preventing a recurrence of similar explosions.

2. The commissioner shall keep a complete and accurate record of the name of the owner or user of each steam boiler or other equipment subject to this chapter, giving a full description of the equipment, including the type, dimensions, age, condition, the amount of pressure allowed, and the date when last inspected.

3. A rule adopted pursuant to this chapter which adopts standards by reference to another publication shall be exempt from the requirements of section 17A.6, subsection 4, if the following conditions exist:

*a.* The cost of the publication is an unreasonable expense when compared to the anticipated usage of the publication.

b. A copy of the publication is available from an entity located within the state capitol complex.

c. The rule identifies the location where the publication is available.

d. The administrative rules coordinator approves the exemption.

[C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, § 89.4; C79, 81, § 89.5]

96 Acts, ch 1149, § 1; 2004 Acts, ch 1107, §4, 5, 30

#### **89.6 New boilers notice to commissioner.**

Before any equipment included under the provisions of this chapter is installed by any owner, user or lessee thereof, a ten days' written notice of intention to install the equipment shall be given to the commissioner. The notice shall designate the proposed place of installation, the type and capacity of the equipment, the use to be made thereof, the name of company which manufactured the equipment, and whether the equipment is new or used.

[C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, § 89.5; C79, 81, § 89.6]

#### **89.7 Insured equipment certificate.**

1. The inspection required by this chapter shall not be made by the commissioner if an owner or user of equipment specified by this chapter obtains an inspection by a representative of a reputable insurance company and obtains a policy of insurance upon the equipment from that insurance company. The representative conducting the inspection shall be commissioned by the commissioner as a special inspector for the year during which the inspection occurs and shall meet such other requirements as the commissioner may by rule establish. The commission shall be valid for one year and the special inspector shall pay a fee for the issuance of the commission. The commissioner shall establish the amount of the fee by rule. The commissioner shall establish rules for the issuance and revocation of special inspector commissions. The rules are subject to the requirements of chapter 17A.

2. The insurance company shall file a certificate of inspection on forms approved by the commissioner stating that the equipment is insured and that inspection shall be made in accordance with section 89.3.

3. Upon such showing and the payment of a fee, the commissioner shall issue a certificate of inspection by the division of labor services, which shall be valid only for the period specified in section 89.3.

4. The special inspector shall notify the user and the commissioner of any equipment or appurtenance found to be unsafe or unfit for operation in writing, setting forth the nature and extent of such defects and condition. The commissioner shall indicate to the user whether or not the equipment may be used without making repair or replacement of defective parts, or whether or how the equipment may be used in a limited capacity before repairs or replacements are made, and the commissioner may permit the user a reasonable time to make such repairs or replacements. The failure of a special inspector to inform the commissioner of violations shall not subject the commissioner to liability for any damages incurred.

[C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, § 89.6; C79, 81, § 89.7]

85 Acts, ch 102, §1; 87 Acts, ch 15, §1; 90 Acts, ch 1136, § 4, 5; 91 Acts, ch 136, §2; 2004 Acts, ch 1107, §6, 30

#### **89.8 Boiler and pressure vessel safety fund fees appropriated.**

1. A boiler and pressure vessel safety revolving fund is created within the state treasury under the control of the commissioner and shall consist of moneys collected by the commissioner as fees. Moneys in the fund are appropriated and shall be used by the commissioner to pay the actual costs and expenses necessary to operate the board and administer the provisions of this chapter. All salaries and expenses properly chargeable to the fund shall be paid from the fund. Section 8.33 does not apply to any moneys in the fund. Notwithstanding section 12C.7, subsection 2, interest or earnings on moneys deposited in the fund shall be credited to the fund.

2. This section is repealed effective July 1, 2012.

[C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, § 89.7; C79, 81, § 89.8]

85 Acts, ch 102, §2; 2004 Acts, ch 1107, §7, 30

### **89.9 Disposal of fees.**

All fees provided for in this chapter shall be collected by the commissioner and remitted to the treasurer of state, to be deposited in the boiler and pressure vessel safety fund pursuant to section 89.8, together with an itemized statement showing the source of collection.

[C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, § 89.8; C79, 81, § 89.9]

2004 Acts, ch 1107, §8, 30

### **89.10 Penalty.**

Any person or persons, corporations and directors, managers and superintendents, and officers thereof, violating any of the provisions of this chapter, shall be guilty of a simple misdemeanor.

[C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, § 89.9; C79, 81, § 89.10]

### **89.11 Injunction.**

In addition to any and all other remedies, if any owner, user, or person in charge of any equipment covered by this chapter, shall continue to use any equipment covered by this chapter, after receiving a notice of defect and exhausting appeal rights as provided by this chapter, without first correcting the defects or making replacements, the commissioner may apply to the district court or any judge thereof by petition in equity, in an action brought in the name of the state, for a writ of injunction to restrain the use of the alleged defective equipment.

[C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, § 89.10; C79, 81, § 89.11]

2004 Acts, ch 1107, §9, 30

### **89.12 Hearing notice decree.**

The commissioner shall notify in writing the owner or user of the equipment of the time and place of hearing of the petition as fixed by the court or judge, and shall serve the notice on the defendant at least five days prior to the hearing in the same manner as original notices are served. The general provisions relating to civil practice and procedure as may be applicable, shall govern the proceedings, except as herein modified. In the event the defendant does not appear or plead to the action, default shall be entered against the defendant. The action shall be tried in equity, and the court or judge shall make such order or decree as the evidence warrants.

### **89.13 Civil penalty allowed.**

If upon notice and hearing the commissioner determines that an owner has operated a facility in violation of a safety order, the commissioner may assess a civil penalty against the owner in an amount not exceeding five hundred dollars, as determined by the commissioner. An order assessing a civil penalty is subject to appeal to the employment appeal board and to judicial review. The commissioner may commence an action in the district court to enforce payment of a civil penalty. Revenue from the penalty provided in this section shall be remitted to the treasurer of state for deposit in the general fund of the state.

90 Acts, ch 1136, §6

### **89.14 Boiler and pressure vessel board created duties.**

1. A boiler and pressure vessel board is created within the division of labor services of the department of workforce development to formulate definitions and rules requirements for the safe and proper installation, repair, maintenance, alteration, use, and operation of boilers and pressure vessels in this state.

2. The boiler and pressure vessel board is composed of nine members, one of whom shall be the commissioner or the commissioner's designee. The remaining eight members shall be appointed by the governor, subject to confirmation by the senate, to four-year staggered terms beginning and ending as provided in section 69.19. One member shall be a special inspector who is employed by an insurance company that is licensed and actively writing boiler and machinery insurance in this state and who is commissioned to inspect boiler and pressure vessels in this state, two members shall be appointed from certified employee organizations, one of whom shall represent steamfitters, two members shall be mechanical engineers who regularly practice in the area of boilers and pressure vessels, one member shall be a boiler and pressure vessel distributor in this state, one member shall represent boiler and pressure vessel manufacturers, and one member shall be a mechanical contractor engaged in the business of installation, renovation, and repair of boilers and pressure vessels.

3. A vacancy in membership shall be filled in the same manner as the original appointment. The members shall serve without compensation, but shall be reimbursed for actual and necessary expenses incurred in the performance of official duties as a member.

4. The members of the board shall select a chairperson, vice chairperson, and secretary from their membership. However, neither the commissioner nor the commissioner's designee shall serve as chairperson. The board shall meet at least quarterly but may meet as often as necessary. Meetings shall be set by a majority of the board or upon the call of the chairperson, or in the chairperson's absence, upon the call of the vice chairperson. A majority of the board members shall constitute a quorum.

5. The board shall adopt rules pursuant to chapter 17A necessary to administer the duties of the board. Rules adopted by the board shall be in accordance with accepted engineering standards and practices. The board shall adopt rules relating to the equipment covered by this chapter that are in accordance with the ASME code, which may include addenda, interpretations, and code cases, as soon as reasonably practical following publication by the American society of mechanical engineers.

6. A notice of defect or inspection report issued by the commissioner pursuant to this chapter may, within thirty days after the making of the order, be appealed to the board. Board action constitutes final agency action for purposes of chapter 17A.

7. Not later than July 1, 2005, and every three years thereafter, the board shall conduct a comprehensive review of existing boiler rules, regulations, and standards, including but not limited to those relating to

potable hot water supply boilers and water heaters.

8. The board shall establish fees for examinations, commissions, inspections, annual statements, shop inspections, and other services. The fees shall reflect the actual costs and expenses necessary to operate the board and perform the duties of the commissioner.

2004 Acts, ch 1107, §10, 30

### **Footnotes**

Confirmation, see §2.32