

## **CHAPTER 23.1-16 BOILER INSPECTION**

### **23.1-16-01. Definitions.**

As used in this chapter, unless the context otherwise requires:

1. "Boiler" 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 externally to the boiler by the direct application of heat from the combustion of fuels, or from electricity or nuclear energy. The term includes fired units for vaporizing liquids other than water when these units are separate from processing systems and are complete within themselves.
2. "Department" means the department of environmental quality.

### **23.1-16-02. Chief boiler inspector, deputy inspectors - Appointment - Jurisdiction.**

The department shall employ a chief boiler inspector and deputy inspectors. The chief boiler inspector has jurisdiction over all boilers in this state except as otherwise provided.

### **23.1-16-03. Qualifications of chief boiler inspector - Deputy inspectors.**

1. An individual is not eligible to the office of chief boiler inspector unless that individual:
  - a. Has had at the time of the appointment at least five years' experience in the construction, inspection, operation, maintenance, or repair of high-pressure boilers and pressure vessels as a mechanical engineer, boilermaker, steam operating engineer, or boiler inspector. An applicant possessing a mechanical engineering degree from an accredited school may substitute that degree for two years of the five years' experience, at the discretion of the department.
  - b. Holds a commission issued by the national board of boiler and pressure vessel inspectors or obtains the commission within one year after the date of appointment by the department.
  - c. Is not directly or indirectly interested in the manufacture or sale of boilers or steam machinery or articles used in the construction or maintenance of engines or boilers.
2. The department shall establish qualifications for a deputy inspector which are not inconsistent with the requirements of the position.

### **23.1-16-04. Powers and duties of chief boiler inspector.**

1. The chief boiler inspector shall:
  - a. Keep a complete record of the type, dimensions, maximum allowable working pressure, age, condition, location, and date of the last-recorded internal and external inspection of boilers to which this chapter applies.
  - b. Cooperate and assist in loss prevention programs sponsored by the department.
2. The chief boiler inspector may delegate powers and duties to any deputy inspector or special inspector.

### **23.1-16-05. General requirement.**

Every boiler in this state must be constructed, installed, and maintained according to rules adopted to implement this chapter.

### **23.1-16-06. Exempt boilers - Inspection of exempt boilers.**

This chapter does not apply to:

1. Any boiler subject to federal inspection or under federal control.
2. Any boiler located on a farm and used solely for agricultural purposes.
3. Any heating boiler located in a private residence or in an apartment house of less than six family units.
4. Any hot water supply boiler not exceeding the following limitations:
  - a. Input of two hundred thousand British thermal units per hour.

- b. Pressure of one hundred sixty pounds per square inch [1103.16 kilopascals] gauge.
  - c. Temperature of two hundred fifty degrees Fahrenheit [121.11 degrees Celsius].
5. Any portable steam cleaner commonly used in a garage.
  6. Any boiler of a miniature model locomotive, boat, tractor, or stationary engine design constructed as a hobby, not for commercial use, having an inside diameter not exceeding ten inches [25.4 centimeters] and a grate area not exceeding one and one-half square feet [1393.54 square centimeters] and which is properly equipped with a safety valve, water level indicator, and pressure gauge.
  7. Any electric boiler used as an integral part of an espresso coffee machine, provided that the boiler does not exceed one and one-half cubic feet [.0566 cubic meter] in water capacity, does not exceed fifty pounds per square inch [344.74 kilopascals] pressure, and is constructed, approved, or certified to the American society of mechanical engineers code or to other national or international standards.

#### **23.1-16-07. Inspection of boilers.**

1. The chief boiler inspector shall inspect each boiler used or proposed to be used within this state. The inspection must be thorough as to the construction, installation, condition, and operation as provided by the rules adopted to implement this chapter. An exempt boiler may be inspected by the chief boiler inspector when the owner, the owner's agent, or the user of the boiler makes written request for inspection to the department.
2. Each boiler of one hundred thousand pounds [45359.24 kilograms] per hour or more capacity, used or proposed to be used within this state, which has 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 when the water treatment is for the purpose of controlling and limiting serious corrosion and other deteriorating factors, and with respect to which boiler the chief boiler inspector has determined the owner or user has complied with the prescribed recordkeeping requirements, must be inspected at least once every thirty-six months internally while not under pressure, and at least once every twelve months externally while under pressure. If a hydrostatic test is necessary to determine the safety of a boiler, the test must be conducted by the owner or user of the equipment under the supervision of the chief boiler inspector. The owner or user of a boiler of one hundred thousand pounds [45359.24 kilograms] per hour or more capacity desiring to qualify for thirty-six-month internal inspection intervals shall keep available for examination by the chief boiler inspector accurate records showing the date and actual time the boiler is out of service and the reason for being out of service, and the results of the chemical and physical analysis of the boiler water, whether from laboratory analysis of samples taken at regular intervals of not more than forty-eight hours or from continuous online analyzers, which will adequately show the condition of the water and any other elements or characteristics of the water capable of producing corrosion or other deterioration of the boiler or its parts. If an inspection discloses deficiencies in equipment or in operating procedures, inspections may be required once every twelve months.

#### **23.1-16-08. Special inspector.**

1. Upon written request of an employer, the department may appoint as a special inspector an inspector in the employ of:
  - a. An insurance company authorized to insure boilers in this state against loss from explosion;
  - b. A company qualified by the national board of boiler and pressure vessel inspectors as an accredited owner/user inspection organization; or
  - c. A company qualified by the national board of boiler and pressure vessel inspectors as an accredited authorized inspection agency.

2. An individual may not be appointed as a special inspector unless that individual has passed the examination prescribed by the national board of boiler and pressure vessel inspectors.
3. An inspection performed by a special inspector must be performed in accordance with this chapter and a complete report of the inspection must be filed with the department in the time, manner, and form as prescribed by the department.
4. If a complete report is not filed by the special inspector's employer with the department within ninety days from the certificate due date, the chief boiler inspector may make the required inspection, unless an extension of time is granted by the chief boiler inspector. The special inspector's employer must pay the inspection fees as required by section 23.1-16-09 for a special inspection.
5. The chief boiler inspector may inspect any boiler to which a special inspection applies.
6. The department may, for cause, suspend or revoke the appointment of any special inspector.

#### **23.1-16-09. Inspection and certificate fees.**

1. Upon completion of inspection, the owner or user of a boiler shall pay to the department fees or a combination of inspection and certificate fees. The department shall determine the inspection fees. Certificate fees are determined by section 23.1-16-10. The department shall determine and annually may adjust a fee scale for the internal inspections of power boilers, internal inspections of low-pressure heating boilers, external inspections of all boilers, and inspection of boilers used exclusively for exhibition purposes.
2. Not more than two hundred dollars may be charged or collected for any one inspection of a boiler, except for special inspections made upon request. All other inspections made by the chief boiler inspector, including shop inspections and reviews and special inspections when requested by the owner or user of a boiler, must be charged at a rate not to exceed five hundred dollars per day or three hundred dollars per half day of four hours or less, plus payment for mileage, meals, and hotel expenses as allowed by sections 44-08-04 and 54-06-09, except that the mileage rate for a state-owned vehicle will be the actual amount incurred by the department.
3. The annual fee for the issuance of a reciprocal commission card for a special inspector is forty dollars and the annual fee for the issuance of a welder-qualified card is twenty dollars.
4. The fee for taking an examination for a hobby boiler operating license is twenty-five dollars and the fee for a hobby boiler operating license is twenty-five dollars.
5. A hobby boiler operating license issued under this section is valid for six years.

#### **23.1-16-10. Certificate of inspection - Certificate to be posted.**

The department shall issue a certificate of inspection for each boiler inspected upon receipt of an inspection report certifying that the boiler is in a safe condition to be operated. The department shall charge a fee of thirty-five dollars per year for each year that a certificate is valid, or part of a year thereof, for each certificate of inspection issued as the result of inspections authorized under sections 23.1-16-07 and 23.1-16-08. The fees are the liability of the owner or user and must be paid in accordance with rules adopted by the department. A certificate may not be issued for any boiler not in a safe condition to be operated or for a boiler for which the inspection and certificate fees have not been paid in full. A certificate is not valid for a period of more than thirty-six months for power boilers described in subsection 2 of section 23.1-16-07, and no more than twelve months for other power boilers, twelve months for steam traction engines, and thirty-six months for low-pressure boilers except that a two-month grace period may be extended for any certificate. Upon written request from a special inspector, the chief boiler inspector may issue a short-term certificate. Each certificate of inspection must be posted conspicuously under glass in the boiler room or adjacent to the boiler inspected.

**23.1-16-11. Certificate of inspection required - Penalty.**

A person may not operate a boiler in this state without a valid certificate of inspection. A violation of this section is a class A misdemeanor on the part of the owner, user, or operator of the boiler.

**23.1-16-12. Manufacturer's data report.**

The boiler manufacturer shall provide the department with a manufacturer's data report. When signed by an authorized inspector, this data sheet together with the stamp on the boiler is the record denoting the boiler has been constructed in accordance with the rules adopted to implement this chapter.

**23.1-16-13. Disposition of funds.**

All funds collected and received under this chapter must be paid to the state treasurer and deposited in the department of environmental quality operating fund to be used to defray the costs of boiler inspections.

**23.1-16-14. Rules - Penalty for violation - Hearing.**

1. The department shall adopt rules for the safe and proper installation, use, operation, and inspection of boilers and pressure vessels subject to this chapter.
2. The department shall adopt rules for the licensing of operators of hobby boilers used during parades, exhibitions, and threshing shows where the public is invited.
3. A fee must be charged for an operating license, for a license renewal, and for an examination conducted to determine minimum competence. Individuals operating hobby boilers within this state as of July 1, 2007, are considered acceptable for a license without additional training or examination. An individual who is not a resident of this state and who holds a boiler operator license or credential in another state or Canadian province is exempt from licensure as a hobby boiler operator in this state.
4. The department may not issue a certificate of inspection to any owner or user of a boiler who fails or refuses to comply with the rules. The department shall revoke any certificate presently in force upon evidence that the owner or user of the boiler is failing or refusing to comply with the rules.
5. Any owner or user of a boiler may request a hearing before the department within fifteen days from service of an order refusing or revoking a certificate of inspection. It is the burden of the owner or user to show cause why the certificate of inspection should not be refused or revoked. If no hearing is requested within the required period, the order of the department becomes final and is not subject to further proceedings.