
SENATE BILL 6743

State of Washington

55th Legislature

1998 Regular Session

By Senators Schow and Wojahn

Read first time 02/03/98. Referred to Committee on Commerce & Labor.

1 AN ACT Relating to licensing and inspection of boilers and unfired
2 pressure vessels; amending RCW 70.79.040; adding new sections to
3 chapter 70.79 RCW; and creating a new section.

4 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

5 NEW SECTION. **Sec. 1.** The legislature finds that there is a state-
6 wide need for uniformity in the licensing of operators of boilers and
7 unfired pressure vessels. The board of boiler rules is authorized to
8 adopt rules and regulations necessary for licensing operators of
9 boilers and unfired pressure vessels.

10 **Sec. 2.** RCW 70.79.040 and 1951 c 32 s 4 are each amended to read
11 as follows:

12 The board shall promulgate rules and regulations for the safe and
13 proper installation, repair, use and operation of boilers, and for the
14 safe and proper installation and repair of unfired pressure vessels
15 which were in use or installed ready for use in this state prior to the
16 date upon which the first rules and regulations under this chapter
17 pertaining to existing installations became effective, or during the
18 twelve months period immediately thereafter. The board shall also

1 promulgate rules and regulations for licensing operators of boilers and
2 unfired pressure vessels.

3 NEW SECTION. **Sec. 3.** A new section is added to chapter 70.79 RCW
4 to read as follows:

5 It is unlawful to have charge of, operate, or permit any one to
6 have charge of, or operate any boiler within the state without first
7 obtaining a license issued as required by this chapter.

8 NEW SECTION. **Sec. 4.** A new section is added to chapter 70.79 RCW
9 to read as follows:

10 The definitions in this section apply throughout this chapter
11 unless the context clearly requires otherwise.

12 (1) "Appeals board" means a group of three qualified and licensed
13 class one chief operating engineers approved by the director of the
14 department of labor and industries.

15 (2) "Approved monitoring system" means a monitoring system
16 manufactured, installed, and maintained in a manner approved by the
17 director of labor and industries.

18 (3) "Automatic boiler" means a boiler equipped with controls and
19 limit devices as set forth in the latest edition of the Washington
20 state building code, chapter 51-32 WAC, Uniform Mechanical Code,
21 Appendix B, Chapter 10, and the latest edition of the ASME Boiler Code.

22 (4) "Boiler" means a closed vessel used for heating water or liquid
23 or used for generating steam or vapor by direct application of heat
24 from combustion fuels or electricity.

25 (5) "Boiler plant" means one or more boilers and connecting piping
26 and vessels within the same premises housing the boiler or boilers.

27 (6) "Btu" means British thermal unit.

28 (7) "Burner for automatic boiler" means a device equipped with an
29 ignition system sufficiently reliable to ignite the entire release
30 surface of the burner assembly and designed to convey fuel into the
31 combustion chamber in proximity to the combustion air supply, thus
32 permitting a stable controlled heat release compatible with the burner
33 design.

34 (8) "Checked by a licensed operator" means inspected by a licensed
35 operator for safety and proper operation, the inspection having
36 included:

1 (a) Examination of the boiler and the boiler log book as required
2 by this section;

3 (b) Testing of all control devices required for automatic boilers
4 and testing of any included monitoring systems;

5 (c) Testing of all other control devices and flushing of any low-
6 water fuel cut-offs; and

7 (d) Examination of the boiler to detect unauthorized or
8 unsupervised modifications.

9 (9) "Examiner" means any person certified by the national board of
10 boiler and pressure vessel inspectors and approved by the director of
11 the department of labor and industries.

12 (10) "Hot water supply boiler" means a low-pressure water heating
13 boiler that provides hot water to be used external to itself and has a
14 volume exceeding one hundred twenty gallons, a heat input exceeding two
15 hundred thousand btu per hour, or an operating temperature exceeding
16 two hundred degrees Fahrenheit.

17 (11) "Licensed operator" means a person holding any one of the
18 classes of licenses issued in accordance with this chapter, authorizing
19 the person to operate, or supervise the operation of, specified classes
20 of boiler plants.

21 (12) "Low-pressure hot water heating boiler" means a boiler in
22 which water is heated for the purpose of supplying heat at pressures
23 not exceeding one hundred sixty pounds per square inch and at
24 temperatures not exceeding two hundred fifty degrees Fahrenheit.

25 (13) "Low-pressure steam heating boiler" means a boiler operated at
26 pressures not exceeding fifteen pounds per square inch for steam.

27 (14) "Oral board" means a group of three qualified and licensed
28 class one chief operating engineers approved by the examiner.

29 (15) "Power hot water boiler" or "high temperature water boiler"
30 means a boiler used for heating water or liquid to a pressure exceeding
31 one hundred sixty pounds per square inch or to a temperature exceeding
32 two hundred fifty degrees Fahrenheit.

33 (16) "Power steam boiler" means a boiler in which steam or other
34 vapor is generated at pressures exceeding fifteen pounds per square
35 inch, not including a small power boiler.

36 (17) "Small power boiler" means a boiler operated at pressures
37 exceeding fifteen pounds per square inch but not exceeding one hundred
38 pounds per square inch and having less than four hundred forty thousand
39 btu per hour heat input.

1 (18) "Steam engine" means an engine in which all prime movers
2 employ vapor from a boiler to produce motive power, including steam
3 driven compressors, and steam pumps, the steam pumps and similar
4 auxiliaries serving merely as appurtenances for the operation of a
5 boiler.

6 (19) "Twice daily check" means the two inspections of a boiler
7 required by this chapter to be recorded in the boiler log book, the
8 first check to be made not less than eight hours after the last
9 recorded check of the previous day, the second check to be made at
10 least six hours after the first recorded check of the day. This
11 subsection does not preclude additional checks being made to ensure
12 safe operation of the boiler.

13 (20) "Water heater" means a closed vessel used for heating water by
14 direct application of heat from combustible fuels or electricity, with
15 a nominal water-containing capacity of one hundred twenty gallons or
16 less, having a heat input not exceeding two hundred thousand btu per
17 hour, used to supply hot water at pressure of one hundred sixty pounds
18 per square inch or less, and operating at a temperature not exceeding
19 two hundred degrees Fahrenheit.

20 NEW SECTION. **Sec. 5.** A new section is added to chapter 70.79 RCW
21 to read as follows:

22 There are five grades of licenses for the operation and maintenance
23 of boiler plants, designated and limited as follows:

24 (1) A class one chief operating engineer license entitles the
25 holder to take charge of the operation and maintenance of any boiler
26 plant;

27 (2) A class two operating engineer license entitles the holder to
28 operate or to have charge of the operation of any boiler plant while
29 under the direct supervision of a licensed chief operating engineer.
30 In plants where there is not a licensed chief operating engineer, the
31 licensee is limited to operation of a boiler plant not exceeding an
32 aggregate of three hundred million btu per hour input;

33 (3) A class three boiler fireman license entitles the holder to
34 operate any boiler plant under the direct supervision of a licensed
35 chief operating engineer or operating engineer. When not working under
36 the direct supervision of an operating engineer, the licensee is
37 limited to operation of a boiler plant not exceeding an aggregate of
38 twenty million btu per hour input;

1 (4) A class four boiler fireman license entitles the holder to
2 operate any boiler plant under the direct supervision of a licensed
3 chief operating engineer or operating engineer. The licensee is
4 limited to operation of a boiler plant not exceeding an aggregate of
5 five million btu per hour input; and

6 (5) A class five boiler fireman license entitles the holder to
7 operate any boiler not exceeding one million btu per hour input.

8 NEW SECTION. **Sec. 6.** A new section is added to chapter 70.79 RCW
9 to read as follows:

10 Persons desiring a license described in section 5 of this act must
11 make written application to the state on forms provided by the
12 department.

13 Eligibility requirements for examination for specific classes are
14 as follow:

15 (1) Class one chief operating engineer license: (a) The applicant
16 must furnish verification of an aggregate of five years' experience
17 operating high or low-pressure boilers as a class two operating
18 engineer or must document equivalent experience, or (b) the applicant
19 must be a graduate from a recognized curriculum in technology or a
20 recognized training program and furnish verification of an aggregate of
21 three years' experience in the care and operation of high or low-
22 pressure boilers as a class two operating engineer.

23 (2) Class two operating engineer license: (a) The applicant must
24 furnish verification of an aggregate of three years' experience
25 operating high or low-pressure boilers, or (b) the applicant must be a
26 graduate from a recognized curriculum in technology or a recognized
27 training program and furnish verification of an aggregate of two
28 years' experience in operation of high or low-pressure boilers.

29 (3) Class three boiler fireman license: (a) The applicant must
30 furnish verification of an aggregate of one year's experience as a
31 boiler fireman, or (b) the applicant must be a graduate from a
32 recognized curriculum in technology or a recognized training program
33 and furnish verification of three months' experience as a boiler
34 fireman.

35 (4) Class four boiler fireman license and class five boiler fireman
36 license: The applicant must furnish the examiner with satisfactory
37 evidence of qualifications for examination.

1 Any person making application for any grade of license as an
2 operator of a boiler plant must, before the license is issued, submit
3 to examination. The examination must be both written and oral,
4 consisting of questions covering care, maintenance, operation, and
5 construction of boilers, appurtenances, and auxiliaries applicable to
6 the class of license for which such examination is held. Applicants
7 for a class one or two license must pass the written portion with a
8 grade of seventy percent and must pass oral examination by the examiner
9 and the oral board. Applicants for class three, four, and five
10 licenses need not pass oral examination but must pass a written
11 examination with a grade of seventy percent.

12 Any applicant who fails examination for a license is not eligible
13 for reexamination until a period of thirty days has elapsed. A fee as
14 established by the board of boiler rules shall be charged for each
15 examination for all classes of licenses. An applicant who fails to
16 pass the examination and believes an injustice has been done may appeal
17 by serving a written notice upon the director of labor and industries
18 within ten days of the posting of examination results. The appeals
19 board shall review the examination papers of the appellant and if
20 necessary submit the appellant to an additional oral examination to
21 determine whether to issue a license. The decision of the majority of
22 the members of the appeals board is final.

23 NEW SECTION. **Sec. 7.** A new section is added to chapter 70.79 RCW
24 to read as follows:

25 (1) The following installations do not require a licensed operator:

26 (a) Any boiler or steam engine subject to federal regulations;

27 (b) Heating boilers in group R1 occupancies of less than six units,
28 group R3 occupancies, and group U occupancies, as defined in the
29 building code;

30 (c) Low-pressure hot water, low-pressure steam, and hot water
31 supply boiler plants having inputs of less than two million five
32 hundred thousand btu per hour;

33 (d) Any boiler having an input of less than one hundred thousand
34 btu per hour; and

35 (e) Water heaters.

36 (2) Any person already performing duties that meet the requirements
37 of the specific grade of license and the size of the plant that the
38 person operates, and able to verify that experience, may apply for a

1 steam license without examination, if application is made within one
2 year of the effective date of this act.

3 (3) Currently licensed operating engineers licensed in a recognized
4 local jurisdiction within the state of Washington shall be granted an
5 equivalent state level license upon application and verification of the
6 license.

7 (4) An operator currently employed or working at a facility
8 presently exempt from Washington state pressure vessel inspection is
9 not required to obtain an operator's license to continue working at
10 that facility.

11 NEW SECTION. **Sec. 8.** A new section is added to chapter 70.79 RCW
12 to read as follows:

13 (1) Every licensed operating engineer or boiler fireman, before
14 operating any boiler, must first determine that the issued boiler
15 inspection certificate is in force, and if the certificate has expired,
16 must notify the employer. Expiration exceeding ninety days requires
17 notification to the state boiler inspector. The engineer or fireman
18 must note the pressure allowed by the certificate and must test the
19 operation of the boiler and its control and safety devices for proper
20 operation.

21 (2) Any licensed operating engineer or boiler fireman who believes
22 that any part of a boiler is defective or in potentially unsafe
23 condition, must report the fact to the employer and to the state boiler
24 inspector if the employer fails to take immediate corrective action.

25 (3) The state boiler inspector must investigate any reported defect
26 or unsafe condition and must report any lack of proper care on the part
27 of any licensed person to the employer and the state. The state must
28 record the facts on the records of the licensee.

29 (4) The licensed operating engineer or boiler fireman in charge of
30 any boiler must report to the employer and to the state boiler
31 inspector any damage or condition that compromises safe operation of
32 the boiler. Failure to make such report is sufficient cause for the
33 suspension or revocation of the license of the person in charge.

34 (5) It is the duty of each licensed operating engineer and boiler
35 fireman to report serious negligence in the care of boilers to the
36 employer and the state boiler inspector.

37 (6) An operator's license must be posted in a conspicuous place
38 under glass on the wall of the boiler room of the plant where the

1 license holder is employed. A license is effective only for the
2 operation of the plant where it is displayed.

3 (7) Every licensed operating engineer or boiler fireman must inform
4 the state boiler inspector of any change in the place of employment
5 within twenty-four hours of leaving or accepting a position. Notice
6 must be in writing, addressed to the director of labor and industries
7 in Olympia, Washington, and must include the licensee's name, number,
8 and grade of license, and the name and address of the plant of last
9 employment and of new employment.

10 (8) A licensed operator must assist the state boiler inspector in
11 the examination of any boiler under the operator's charge and must
12 point out all known defects, damage, or repair of the boiler or
13 pressure vessel. The license of any operator who deliberately neglects
14 to comply with this subsection must be revoked.

15 NEW SECTION. **Sec. 9.** A new section is added to chapter 70.79 RCW
16 to read as follows:

17 A licensed operating engineer or boiler fireman must perform all
18 duties in connection with operation and maintenance of boilers in
19 compliance with WAC 296-104-900.

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