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SENATE BILL NO. 461

Offered January 12, 2022

Prefiled January 12, 2022

A *BILL to amend the Code of Virginia by adding in Chapter 11 of Title 54.1 an article numbered 7, consisting of sections numbered 54.1-1149 through 54.1-1154, relating to Department of Professional and Occupational Regulation; contractors; boiler and pressure vessel operator license.*

Patron—Bell

Referred to Committee on General Laws and Technology

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding in Chapter 11 of Title 54.1 an article numbered 7, consisting of sections numbered 54.1-1149 through 54.1-1154, as follows:

*Article 7.**Onsite Superintendent Boiler Operators.***§ 54.1-1149. Definitions.**

As used in this article, unless the context requires a different meaning:

"Accredited" means accredited by an accrediting body recognized by the U.S. Department of Education.

"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 itself by the direct application of heat. "Boiler" includes fired units for heating or vaporizing liquids other than water where these units are separate from processing systems and are complete within themselves.

"Boiler operator" means an individual who would normally be the senior operational and maintenance person at the site of the boiler who would be expected to react to changing operational and maintenance situations.

"Heating plant" means a heating system containing a low-pressure steam or hot water boiler used to generate energy for use in heating buildings, potable water, or processing.

"High-pressure boiler" means a steam boiler where the safety valves are set to relieve at a pressure of more than 15 pounds per square inch.

"Horsepower rating of a boiler" means the largest rating determined in accordance with each of the following: (i) by dividing the square feet of boiler heating surface by 10; (ii) the manufacturer's rated output in horsepower; or (iii) where the manufacturer's rated output is expressed in terms other than horsepower, such rating converted into horsepower by the use of one of the factors as defined in this article.

"Hot water heating boiler" means any hot water boiler operated at pressures not exceeding 160 pounds per square inch or temperatures not exceeding 250 degrees Fahrenheit.

"Low-pressure boiler" means a steam boiler in which the safety valves are set to relieve at a pressure of 15 pounds per square inch or less and hot water heating boilers.

"Multifamily dwelling unit" means the same as that term is defined in § 55.1-1200.

"Pressure vessel" means any vessel (i) the pressure of which is obtained from an external source or by an internal or external application of heat and (ii) that is an auxiliary to a boiler plant.

"One boiler horsepower" means (i) the evaporation of 34.5 pounds of water per hour from and at 212 degrees Fahrenheit; (ii) 33,475 British thermal units (BTUs) per hour; (iii) 140 square feet of steam radiation; (iv) 224 square feet of water radiation at 150 degrees Fahrenheit; or (v) 10 kilowatts per hour electrical input to boiler.

"Steam plant" means a system containing a high-pressure boiler to generate energy for use in heating, power generation, or processing operations.

§ 54.1-1150. Licensure; civil penalty.

A. Any boiler operator responsible for maintaining safe boiler, unfired pressure vessel, and water heater operations in a multifamily dwelling unit shall be licensed as a boiler operator by the Board pursuant to the provisions of this article. Onsite superintendents licensed in the maintenance of safe boiler, unfired pressure vessel, and water heater operations shall not be required to hold any other professional or occupational license or certification; however, nothing in this subsection shall prohibit an individual from holding more than one professional or occupational license or certification.

B. Any individual desiring to be licensed as a boiler operator shall file a written application on a form prescribed by the Board. The application shall be accompanied by a fee set by the Board pursuant to § 54.1-201. The application shall contain, at a minimum, the applicant's name, place of employment,

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59 and business address and information on the knowledge, skills, abilities, and education or training of
60 the applicant.

61 C. A violation by an owner or employer of any of the provisions of this article may be assessed a
62 civil penalty of up to \$1,000.

63 **§ 54.1-1151. Issuance of License; examination.**

64 A. Boiler operators licensed under this article shall be duly licensed in the proper class. The Board
65 shall issue a license to practice as a boiler operator in the appropriate class in the Commonwealth to
66 any onsite superintendent who has submitted satisfactory evidence that he has successfully:

67 1. Completed the educational requirements as required by the Board, which shall at a minimum
68 include such requirements as the Board determines will establish minimum competency on the part of
69 the applicant;

70 2. Completed the experience requirements as required by the Board; and

71 3. Passed an examination offered or approved by the Board.

72 B. The Board shall provide for the examination of applicants for boiler operator licensure no less
73 than 12 times per year. Such examination shall include questions, diagrams, and practical tests of
74 sufficient scope to demonstrate that the applicant has the necessary qualifications, experience, and
75 knowledge of the basic principles involved in operation, care, and maintenance to operate safely the
76 boiler and auxiliary pressure vessels of the class for which an application for licensure has been made.
77 Specific competencies tested by the examination shall include (i) principles of boiler design, (ii) general
78 operation practices, (iii) effects of water treatment, (iv) inspection requirements, and (v) emergency
79 shutdown procedures.

80 C. The Board may permit an applicant to sit for a written examination at a lower class than that for
81 which the applicant has applied if it is determined that an applicant lacks either the experience or
82 knowledge required for the class for which the applicant applied.

83 D. Applicants shall be notified in writing by the Board of the results of their application within 30
84 days following the date of the examination. Applicants who fail to pass the required examination may
85 not apply for reexamination until 90 days after the date of the last examination.

86 E. An applicant who holds a valid certificate or license from any state or local government outside
87 the Commonwealth may be licensed without examination upon the presentation of the following to the
88 Board: (i) a valid certificate or license from that authority and (ii) the certification or licensure
89 requirements of that authority, provided that the authority's requirements for certification or licensure
90 are equal to or greater than those established under this article.

91 **§ 54.1-1152. Class 1 and 2 boiler operator licenses; requirements.**

92 A. A Class 1 boiler operator shall cover the operation and maintenance of any steam plant. The
93 training and experience requirements for a Class 1 boiler operator are two years' experience as an
94 operator of a high-pressure boiler beyond that experience that is required for a Class 2 operator;
95 however, substitution of a degree in mechanical engineering from an accredited college, university, or
96 school of technology, or successful completion of a Board-approved boiler operator apprenticeship
97 program or a U.S. military training course, may be permitted for one year of the required experience.

98 B. A Class 2 Boiler Operator shall cover the operation and maintenance of (i) a high-pressure steam
99 plant where the total horsepower rating of the boiler is not in excess of 500 boiler horsepower, or a
100 combination of high-pressure boilers and heating boilers and auxiliary pressure vessels; (ii) a heating
101 plant having low-pressure boilers with a pump return with no limitation on total capacity; or (iii) a
102 heating plant having hot water heating boilers, with no limitation on total capacity. The training and
103 experience requirements for a Class 2 boiler operator shall be (a) at least two years' experience as a
104 boiler operator or an assistant boiler operator, fireman, or oiler, in a high-pressure steam plant of more
105 than 75 boiler horsepower or (b) four years of such experience in a plant of not less than 50 boiler
106 horsepower. Substitution of a degree in mechanical engineering from an accredited college, university,
107 or school of technology, or successful completion of any Board-approved boiler operator apprenticeship
108 program or a U.S. military training course, may be permitted for one year of the required experience.

109 **§ 54.1-1153. Revocation or lapse of licensure.**

110 The Board shall have the power to suspend, revoke, or deny renewal of a boiler operator license of
111 any individual who is found to be in violation of the statutes or regulations governing the practice of
112 boiler operators. The Board may suspend, revoke, or deny renewal of a boiler operator license of any
113 individual who has:

114 1. Made misrepresentations in obtaining or renewing a license; or

115 2. Shown negligence or incompetence in the practice of the profession.

116 **§ 54.1-1154. Renewal of licensure; continuing education.**

117 A. Licenses issued under this article shall expire three years from the last day of the month in which
118 they were issued as indicated on the license. As a condition of renewal or reinstatement of licensure, a
119 superintendent shall be required to satisfactorily complete three hours of continuing education relating
120 to boiler operation from a provider approved by the Board.

121 *B. The Board may establish in regulations additional requirements for continuing education as a*
122 *prerequisite to renewal of any license issued under this article. In addition, the Board may require*
123 *continuing education for any individual who is found to be in violation of the statutes or regulations*
124 *governing the practice of licensed tradesmen or certificate holders issued under this article.*