

Reported Recommending
Ind. Postponed
Passed House
Failed to Pass House
Passed Senate
Failed to Pass Senate

House File 304

February 19, 1947.
Departmental Affairs.

By NELSON of Woodbury.

A BILL FOR

An Act to provide for the protection of life and property in schools, hospitals, apartment dwellings, office buildings, industrial plants, hotels, etc. from the danger of steam boilers and refrigeration plant explosions and from the dangers of other motive power, and to fix and determine the conditions and qualifications under which persons may be licensed to have charge of, or operate, a refrigeration plant, a steam boiler or engine or its equipment and any other motive power equipment.

Be It Enacted by the General Assembly of the State of Iowa:

1 Section 1. There is hereby created under the department
2 of labor and by the commissioner of labor a state board of
3 power engineering examiners consisting of three members who
4 shall be appointed by the commissioner of labor within sixty
5 days after the passage of this act. The board members of the
6 first board shall be appointed to serve for the following terms:
7 one member for one year, one member for two years, and one
8 member for three years the said terms ending on the first day
9 of July of the succeeding years. On the expiration of each of
10 the said terms, the term of office of each newly appointed or
11 reappointed member of the board shall be three (3) years and
12 shall terminate on the first day of July. The executive council
13 may remove any member of the board for misconduct, incompetency

14 or neglect of duty. Vacancies in the membership of the board,
15 however created, shall be filled for the unexpired term by
16 appointment by the commissioner of labor.

1 Sec. 2. Each member of the board shall be a citizen of
2 the United States, not less than thirty-five (35) years of
3 age, and a resident of the State of Iowa for at least five
4 (5) years immediately preceding his appointment. Each member
5 shall have been engaged in the operating of steam boilers,
6 engines, refrigeration plants or any other motive power equipment
7 for at least ten (10) years. Each member shall be a first-class
8 licensed engineer provided that each member of the board first
9 appointed shall receive a first-class license from the commissioner
10 of labor.

1 Sec. 3. The board shall adopt and have an official seal
2 which shall be affixed to all licenses granted and may make all
3 bl-laws and rules not inconsistent with law necessary for the
4 proper performance of its duty.

1 Sec. 4. The board shall hold a meeting and organize within
2 thirty (30) days after its members are first appointed, and
3 thereafter shall hold at least one (1) regular meeting in each
4 January, April, July and October of each year and such extra
5 meetings as the board deems necessary and give written and
6 oral examinations for the licenses provided for in this chapter.
7 The board shall elect annually from its members a chairman and
8 a vice chairman. The secretary of the executive council or one
9 of his assistants, to be designated by him, shall act as secretary

10 of said board. At any meeting of the board, two members shall
11 constitute a quorum. The board shall have power to employ such
12 necessary inspectors and clerical assistant and incur such
13 office expense as may be necessary to properly carry out and
14 enforce the provisions of this chapter.

1 Sec. 5. On, or before, the thirtieth (30th) day of May of
2 each year, the board shall submit to the commission of labor a
3 written report of its transactions for the preceding year, and
4 shall file with the secretary of state a copy thereof, together
5 with a complete statement of the receipts and expenditures of
6 the board, attested by the affidavits of the chairman and the
7 secretary, and a complete list of the persons licensed under
8 this chapter with their addresses and license number and the
9 date of issuance. The secretary shall keep on file a record of
10 all licenses granted under this chapter and shall make annually
11 such revisions of said record as may be necessary.

1 Sec. 6. The secretary shall collect and account for all
2 fees provided for by this chapter and pay the same to the state
3 treasurer who shall place such moneys in the general fund.

1 Sec. 7. Warrants for the payment of expenses and
2 compensations provided by this chapter shall be issued by the
3 auditor of state and paid by the state treasurer upon presentation
4 of vouchers regularly drawn by the chairman and secretary of the
5 board and passed by the state board of audit.

1 Sec. 8. Each member of the board shall receive as
2 compensation the sum of fifteen dollars (\$15) per day for the

3 time actually spent in traveling to and from, and in attending
4 sessions of the board and its committees and shall receive all
5 necessary traveling, maintenance and incidental expenses incurred
6 in the discharge of his duties.

1 Sec. 9. No person shall operate a steam or power plant
2 within the terms of this act unless there shall be in charge
3 of such plant a licensed engineer of the correct grade.

1 Sec. 10. There is exempt from the terms of this act all
2 heating plants of less than fifteen (15) pounds pressure per
3 square inch, in private residences of less than four (4) families
4 and boilers, engines and equipment used in marine, or common-carrier
5 locomotive service, or equipment under the jurisdiction of the
6 United States government.

1 Sec. 11. The owner or user of a steam boiler or its
2 equipment, engine, refrigeration plant or any other motive power
3 equipment other than those above excepted, shall not operate or
4 cause to be operated a steam boiler or its equipment, engine,
5 refrigeration plant, or any other motive power equipment unless
6 the person in charge of, and operating it, is duly licensed.

1 Sec. 12. The horse power of a boiler shall be ascertained
2 upon a basis of ten (10) square feet of heating surface which
3 shall equal one (1) horse power. The horse power of a reciprocating
4 steam engine shall be ascertained upon the basis of a mean
5 effective pressure of forty (40) pounds per square inch of piston
6 for a simple engine, fifty (50) pounds for a condensing engine,
7 and seventy (70) pounds for a compound engine, calculated upon

8 the area of the high pressure piston. A variable speed engine
9 shall be rated at its designed mean speed. A steam turbine
10 engine shall be rated at less than nine (9) horse power when
11 the external diameter of the steam supply pipe does not exceed
12 one and three-fourths ($1\frac{3}{4}$) inches, and at fifty (50) horse
13 power when it exceeds one and three-fourths ($1\frac{3}{4}$) inches, and
14 at one hundred fifty (150) horse power when it exceeds three and
15 one-half ($3\frac{1}{2}$) inches and does not exceed five (5) inches.
16 The horse power of other engines and all other motive power
17 equipment shall be rated according to their manufacturer's
18 rating capacity.

1 Sec. 13. Licenses shall be granted according to the
2 competence of the applicant and shall be classified as follows:
3 **FIRST CLASS:** To have charge of, and operate, any power, heating,
4 or refrigeration plant, and any other motive power plant or
5 equipment.
6 **SECOND CLASS:** To have charge of, and operate, any boiler or
7 boilers, and to have charge of, and operate, engines, and any
8 other motive power equipment, not exceeding in the aggregate of
9 one hundred fifty (150) horse power, and refrigeration plants
10 of not more than fifty (50) tons or to operate a first-class
11 plant under the engineer in direct charge thereof.
12 **THIRD CLASS:** To have charge of, and operate, a boiler or boilers
13 not exceeding in the aggregate of one hundred (100) horse power,
14 and engines and any other motive power equipment not exceeding
15 fifty (50) horse power each, and refrigeration plants of not

16 more than twenty-five (25) tons or to operate a second-class
17 plant under the engineer in direct charge thereof.

18 HOISTING ENGINEERS: To have charge of, and operate, hoisting
19 portable boilers and engines irrespective of kind of power. and

20 FIREMEN'S LICENSES: Firemen to have charge of, and operate,
21 boiler or boilers used for heating purposes exclusively where any
22 the safety valve or valves are set to blow at a pressure not
23 exceeding fifteen (15) pounds to the square inch and not more
24 than fifty (50) horse power, and to operate any boiler or
25 boilers under the engineer in direct charge thereof.

1 Sec. 14. To be eligible for examination for a fireman's
2 license, a person must have been employed as an apprentice for
3 not less than one (1) year. To be eligible for a hoisting
4 engineer's license, a person must have been employed as a
5 licensed fireman for not less than one (1) year or as an oiler
6 or engineer's apprentice for not less than one (1) year. To
7 be eligible for a third class engineer's license, a person
8 must have been employed as a licensed fireman for not less
9 than one (1) year. To be eligible for a second-class engineer's
10 license, a person must have been employed as a third-class
11 engineer for not less than two (2) years, except than any person
12 graduated as a mechanical engineer from a duly recognized school
13 of technology who has been employed for not less than one (1)
14 year as an apprentice or as a fireman or engineer in any
15 other state or country shall be eligible for examination for a
16 second-class engineer's license. To be eligible for examination

17 for a first-class engineer's license, a person must have been
18 employed for not less than five (5) years as a second-class
19 engineer, except that any person graduated as a mechanical
20 engineer from a duly recognized school of technology who has
21 been employed for not less than one (1) year as a second-class
22 engineer or as an engineer in any other state or country for not
23 less than two (2) years shall be eligible for examination for a
24 first-class engineer's license.

1 Sec. 15. Each application for a license as an engineer
2 or fireman of a class specified herein shall be made upon a
3 blank furnished by the board signed and sworn to by the applicant,
4 and shall show the total experience of the applicant. Each such
5 application shall be accompanied by an examination fee as follows :
6 For a first-class engineer's license, five dollars (\$5) ; for a
7 second-class or third-class engineer's license, two dollars (\$2) ;
8 for a fireman's license, one dollar (\$1). Each such application
9 shall entitle the applicant to one (1) examination only, and no
10 person shall make application hereunder for a license of any
11 particular class oftener than once in ninety (90) days. Every
12 license shall be renewed on the first day of July of each year
13 upon the payment of two dollars (\$2) for engineers and one dollar
14 (\$1) for firemen.

1 Sec. 16. Any person shall be eligible for examination for
2 a fireman's license when he submits to the board satisfactory
3 evidence that he is of good character and has been employed as
4 such in other states or countries for not less than two (2)

5 years. Any person shall be eligible for examination for the
6 different classes of engineer's license when he submits to the
7 board satisfactory evidence that he is of good character and
8 has been employed as a power engineer in other states or countries
9 for the period of time as follows: First class, ten (10)
10 years; second class, five (5) years; third class, three (3)
11 years; hoisting engineers two (2) years and that he has had
12 charge of, or operated, boilers or engines or refrigeration
13 plants or other motive power equipment for said time which
14 are of the type and horse power the license applied for would
15 permit him to have charge of, or operate.

1 Sec. 17. At any time within one (1) year after this act
2 becomes effective upon due application therefor and upon payment
3 of the renewal fee of the class of license applied for, the
4 board shall issue the license applied for, without written or
5 oral examination, to any person who shall submit evidence,
6 under oath, to the board that he now holds an Iowa municipal
7 license of like grade.

1 Sec. 18. At any time within one (1) year after this act
2 becomes effective upon due application therefor and upon payment
3 of the renewal fee of the class of license applied for, the
4 board shall issue the license applied for, without written or
5 oral examination to any person who shall submit evidence, under
6 oath, to the board that he now is operating equipment of the class
7 for which license he applies provided he has operated said class
8 of equipment for the periods of time as follows: Fireman, not

9 less than one (1) year; hoisting and portable engineer, not less
10 than two (2) years; third-class, not less than two (2) years;
11 second-class, not less than three (3) years; first-class, not
12 less than five (5) years.

1 Sec. 19. Each licensed engineer shall exhibit his license
2 under glass in a conspicuous place in the plant in which he is
3 employed. If the licensee is operating, or has charge of, a
4 hoisting engine, or portable engine, or boiler, he shall carry
5 his license on his person.

1 Sec. 20. A license as engineer or fireman shall be
2 suspended or revoked by the board for incompetence or untrust-
3 worthiness of the holder thereof. A wilfully false statement
4 in the application shall be sufficient cause for revocation at
5 any time. If any person's license is revoked, he cannot make
6 application for a new license under this act within six (6)
7 months from the time his license was revoked. If a license
8 is lost or destroyed, a new certificate shall be issued without
9 examination upon satisfactory proof thereof and upon payment of
10 a fee of one dollar (\$1).

1 Sec. 21. The compliance of the provisions of this act shall
2 rest mutually with the employer and the employee. Any violation
3 of the provisions of this act shall be punishable by a fine not
4 exceeding three hundred dollars (\$300) or by imprisonment not
5 exceeding ninety (90) days.

EXPLANATION OF H. F. 304

This bill provides for the creation of a state board of power engineering examiners, under the commissioner of labor, to administer and regulate the operation of

steam boilers and refrigeration plants and to determine the qualifications of operating engineers for those plants and to set up and provide rules and regulations to prevent dangerous steam and power explosions and to in every way protect human life and property.

The number of explosions in steam boilers and steam plants has increased tremendously in the last few years and many lives have been lost and much property destroyed. This bill provides for the licensing of such engineers, their qualifications and fees, and provides for a board and their duties and for the revocation of licenses as a result of incompetence and untrustworthiness.