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HOUSE BILL No. 5938

May 25, 2004, Introduced by Reps. Lipsey, Hopgood, Bieda, Wenke, Wojno, Palsrok, Howell, Law, Kolb, Gleason, Gaffney, Huizenga, Nitz, Accavitti and Minore and referred to the Committee on Regulatory Reform.

A bill to amend 1965 PA 290, entitled "Boiler act of 1965,"

by amending the title and sections 2, 4, 4a, 12, 14, and 24 (MCL 408.752, 408.754, 408.754a, 408.762, 408.764, and 408.774), sections 2 and 4a as amended by 1986 PA 277 and section 4 as amended by 1980 PA 274, and by adding sections 13a, 13b, 13c, and 13d.

THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

TITLE An act to regulate the -use operation, construction, installation, and repair of certain boilers; to create a board of 4 boiler rules; to prescribe uniform rules and regulations for certain boilers; to provide for the licensing of certain boiler inspectors, installers, and repairers and registration of certain 7 boiler operators and stationary engineers; to provide for powers

- 1 and duties for certain state agencies and officers; to provide
- 2 fees for registrations, licenses, permits, inspections, and
- 3 certificates; to provide penalties and remedies for the violation
- 4 of this act; and to repeal -certain- acts and parts of acts.
- 5 Sec. 2. As used in this act:
- 6 (a) "Boiler" means a closed vessel in which water is heated,
- 7 steam is generated, steam is superheated, or a combination
- 8 thereof, under pressure or vacuum by the application of heat from
- 9 combustible fuels, electricity, or nuclear energy. Boiler does
- 10 not include facilities of an integral part of a continuous
- 11 processing unit but does include a fired unit for heating or
- 12 vaporizing liquids other than water, if the unit is separate from
- 13 a processing system and is complete within itself.
- 14 (b) "Power boiler" means a closed vessel in which steam or
- 15 other vapor is generated at a pressure of more than 15 p.s.i.g.
- 16 by the direct application of heat.
- 17 (c) "High pressure, high temperature water boiler" means a
- 18 water heating boiler operating at pressure exceeding 160
- 19 p.s.i.g. or temperatures exceeding 250 degrees Fahrenheit.
- 20 (d) "Low pressure boiler" means a steam boiler operated at
- 21 pressures not exceeding 15 p.s.i.g., or a hot water heating
- 22 boiler operated at pressures not exceeding 160 p.s.i.g. or
- 23 temperatures not exceeding 250 degrees Fahrenheit.
- (e) "Certificate inspection" means an inspection, the report
- 25 of which is used by the chief inspector to decide whether a
- 26 certificate, as provided by section -19 20, shall be issued.
- 27 The certificate inspection shall be an internal inspection if

- 1 construction allows. therwise Otherwise, the certificate
- 2 inspection shall be as complete an inspection as possible.
- 3 (f) "External inspection" means an inspection which— that
- 4 does not involve examination of the internal surfaces of the
- 5 pressure parts of the boiler.
- 6 (g) "Secondhand boiler" means a boiler -which that has
- 7 changed ownership and location after initial use.
- 8 (h) "Heating surface" means the heating surface determined by
- 9 the boiler manufacturer and recorded in the manufacturer's data
- 10 report or by rules established by the board for a boiler if the
- 11 manufacturer's data report is not available or the boiler is not
- 12 stamped with its heating surface.
- (i) "Process boiler" means a boiler operated at a pressure or
- 14 temperature from which more than 10% of the boiler's capacity is
- 15 used for direct steam humidification or direct process work.
- 16 (j) "Boiler for agricultural purposes" means a portable
- 17 boiler used in a field or similar open area for the sole purpose
- 18 of operating farm equipment or farm machinery.
- 19 (k) "Director" means the director of the department of labor
- 20 and economic growth or a representative designated by the
- 21 director.
- **22** (l) "P.S.I.G." means pounds per square inch gauge.
- 23 (m) "Boiler operator" or "stationary engineer" means a person
- 24 engaged in the operation of boilers and associated auxiliaries.
- (n) "Approved apprenticeship program" means a training
- 26 program for boiler operators or stationary engineers certified by
- 27 or meeting the standards of the United States department of labor

- 1 bureau of apprenticeship training and approved by the board.
- 2 (o) "Associated auxiliaries" means equipment that is required
- 3 in the operation of a boiler that includes, but is not limited
- 4 to, pumps, regulators, feedwater heaters, superheaters,
- 5 de-superheaters, economizers, air preheaters, draft fans,
- 6 combustion and pollution control equipment, and prime movers.
- 7 (p) "Qualified training program" means an in-house training
- 8 program approved by the board and offered to boiler operators and
- 9 stationary engineers by a utility as a result of negotiations
- 10 between a utility and its employees.
- 11 (q) "Qualified technical education program" means an
- 12 educational program approved by the board that has a minimum of
- 13 350 contact hours in classroom hands-on training, field training,
- 14 or supervised plant visits for high pressure boiler operators.
- 15 The board may establish lesser standards for an educational
- 16 program for low pressure operator training or other entry level
- 17 training positions only.
- 18 (r) "Rule" means a rule promulgated pursuant to the
- 19 administrative procedures act of 1969, 1969 PA 306, MCL 24.201 to
- 20 24.328.
- 21 Sec. 4. (1) The board shall formulate **promulgate**
- 22 definitions and rules for the safe construction, installation,
- 23 inspection, operation, and repair of boilers in the state.
- 24 (2) The definitions and rules formulated promulgated for
- 25 new construction shall be based upon and follow the generally
- 26 accepted nationwide engineering standards, formulae, and
- 27 practices established and pertaining to boiler construction and

- 1 safety. The board, by -resolution rule, may adopt an existing
- 2 published codification, known as the boiler and pressure vessel
- 3 code of the American society of mechanical engineers, with the
- 4 amendments and interpretations.
- 5 (3) The board shall formulate **promulgate** rules for the safe
- 6 inspection and maintenance of boilers which were in use in
- 7 the state before July 1, 1966. The rules -formulated
- 8 promulgated shall be based upon and follow the generally accepted
- 9 nationwide engineering standards and may be based upon an
- 10 existing published codification known as the inspection code
- 11 of the national board of boiler and pressure vessel inspectors.
- 12 (4) The rules formulated by the board shall be promulgated
- 13 pursuant to Act No. 306 of the Public Acts of 1969, as amended,
- 14 being sections 24.201 to 24.315 of the Michigan Compiled Laws.
- 15 (4) $\overline{(5)}$ A departure from the requirements of this section
- 16 shall be is permitted in an unusual situation involving a
- 17 boiler of special design or construction if the board is
- 18 satisfied that a proposed facility will provide a degree of
- 19 safety commensurate with the intent of this act.
- 20 (5) Upon payment of a \$30.00 fee and without examination, the
- 21 board may register an applicant for the use of a title described
- 22 in section 13a who is a boiler operator or stationary engineer
- 23 licensed or registered as a boiler operator or stationary
- 24 engineer in another state, municipality, or country whose
- 25 requirements for licensure or registration are, at a minimum,
- 26 substantially equivalent to the requirements of this state for
- 27 registration as determined by the board, if that other state,

- 1 municipality, or country extends the same privileges of
- 2 reciprocity to a boiler operator or stationary engineer
- 3 registered in this state.
- 4 Sec. 4a. (1) —The—Subject to sections 4(5) and 13a(6), the
- 5 board, with the advice of the director, shall promulgate rules
- 6 pursuant to the administrative procedures act of 1969, Act
- 7 No. 306 of the Public Acts of 1969, as amended, being sections
- 8 24.201 to 24.328 of the Michigan Compiled Laws, to establish the
- 9 fee schedules for licenses, registrations, permits, certificates,
- 10 and inspections. The fees shall reflect the actual costs and
- 11 expenses for the department of labor and economic growth in
- 12 issuing licenses, registrations, permits, and certificates and in
- 13 conducting inspections.
- 14 (2) To accomplish the objectives of this section and this
- 15 act, a state boiler inspection fund is created as a restricted
- 16 fund in the state treasury. The state treasurer -shall be- is
- 17 the custodian of the fund and may invest the surplus of the fund.
- 18 in investments as in the state treasurer's judgment are in the
- 19 best interest of the fund. Earnings from those investments shall
- 20 be credited to the fund. The state treasurer shall notify the
- 21 director and the Legislature legislature of interest credited
- 22 and the balance of the fund as of September 30 of each year. The
- 23 director shall supervise and administer the fund. Fees received
- 24 by the department of labor and economic growth and money
- 25 collected under this act shall be deposited in the state boiler
- 26 inspection fund and shall be appropriated for appropriation by
- 27 the Legislature legislature for the operations of the boiler

- 1 division and the indirect overhead expenses in the department of
- 2 labor and economic growth. Funds that are unexpended at the end
- 3 of each fiscal year shall be returned to the state boiler
- 4 inspection fund and shall not revert to the general fund.
- 5 Sec. 12. <u>Examination</u> The examination for chief, deputy,
- 6 or special inspectors shall be -in writing and written. The
- 7 examination for certified boiler operators shall be either
- 8 written or oral. The examination for certified stationary
- 9 engineers shall be both written and oral. The examinations shall
- 10 be -held administered by the board, -with at least and not less
- 11 than 2 members of the board shall be present at all times during
- 12 the an examination. Such examination Examinations shall be
- 13 confined to questions -, the answers to which that will aid in
- 14 determining the fitness and competency of the applicant for the
- 15 intended service, and may be those prepared by the national board
- 16 of boiler and pressure vessel inspectors. The board may adopt
- 17 any examination it determines appropriate and may delegate any
- 18 administrative functions relating to the conduct of the
- 19 examination. If an applicant for an inspector's a license fails
- 20 to pass the examination, he the applicant may appeal to the
- 21 board for another examination which shall be given by the board
- 22 within 90 days. The record of an applicant's examination shall
- 23 be accessible to the applicant and -his- the applicant's
- 24 employer.
- 25 Sec. 13a. (1) An individual may operate a boiler and
- 26 associated auxiliaries without obtaining a registration under
- 27 this act.

- 1 (2) An individual or business entity shall not use the terms
- 2 "certified boiler operator", "certified stationary engineer",
- 3 "low pressure certified boiler operator", "high pressure
- 4 certified boiler operator", "third-class certified stationary
- 5 engineer", "second-class certified stationary engineer",
- 6 "first-class certified stationary engineer", or any other name,
- 7 style, or description that indicates that the individual or an
- 8 individual employed by the business entity is registered under
- 9 this act except under either of the following circumstances:
- 10 (a) The individual has been issued a registration under this
- 11 act.
- 12 (b) The individual is exempt from this act under section 23.
- 13 (3) The individual participating in an approved
- 14 apprenticeship program, a qualified technical training program,
- 15 or a qualified training program may use the title "apprentice
- 16 certified boiler operator" or "apprentice certified stationary
- 17 engineer".
- 18 (4) An individual registered under this act shall only use 1
- 19 of the titles described in subsection (2) or the abbreviation
- 20 "C.B.O." or "C.S.E.". The board may conduct an examination
- 21 designed to establish the competency of applicants for
- 22 registration and may charge an examination fee.
- 23 (5) A person applying for a registration under this act shall
- 24 be not less than 18 years of age, shall possess the physical and
- 25 mental capacities to perform his or her duties in a competent and
- 26 safe manner, and shall meet the applicable requirements of
- 27 section 13d. An applicant shall use a form provided by the

- 1 director.
- 2 (6) The director shall issue a registration upon
- 3 recommendation of the board and upon the applicant's payment of a
- 4 testing fee of \$10.00 and a registration fee of \$20.00 or a fee
- 5 prescribed pursuant to section 4a, whichever is higher, for each
- 6 application. A registration shall be renewed annually upon
- 7 payment of a fee of \$20.00 or a fee prescribed pursuant to
- 8 section 4a, whichever is higher.
- 9 (7) Not later than 1 year after the effective date of the
- 10 amendatory act that added this section, the board shall recommend
- 11 for registration without examination an applicant who submits
- 12 evidence satisfactory to the board of 1 or more of the
- 13 following:
- 14 (a) The applicant has had not less than 5 years of experience
- 15 in the class or category of boiler operator or stationary
- 16 engineer for which the applicant is applying.
- 17 (b) The applicant possesses a license as a boiler operator or
- 18 stationary engineer from the cities of Detroit or Dearborn in a
- 19 class for which the applicant is applying.
- 20 (c) The applicant has successfully completed a 4-year
- 21 approved apprenticeship program, a qualified technical education
- 22 program, or a 4-year qualified training program.
- 23 Sec. 13b. Certified boiler operator and certified
- 24 stationary engineer registrations are classified as follows:
- 25 (a) Low pressure certified boiler operator, who operates low
- 26 pressure boiler plants having an aggregate of not more than 4,000
- 27 square feet of boiler heating surface.

- 1 (b) High pressure certified boiler operator, who operates
- 2 boiler plants having an aggregate of not more than 4,000 square
- 3 feet of boiler heating surface or not more than 10 steam
- 4 engine-turbine horsepower.
- 5 (c) Third-class certified stationary engineer, who operates
- 6 boiler plants having an aggregate of not more than 7,500 square
- 7 feet of boiler heating surface or not more than 100 steam
- 8 engine-turbine horsepower.
- 9 (d) Second-class certified stationary engineer, who operates
- 10 boiler plants having an aggregate of not more than 20,000 square
- 11 feet of boiler heating surface or not more than 200 steam
- 12 engine-turbine horsepower.
- 13 (e) First-class certified stationary engineer, who operates
- 14 boiler plants having an aggregate of 20,000 square feet or more
- 15 of boiler heating surface or 200 steam engine-turbine horsepower
- 16 or more.
- 17 Sec. 13c. (1) Not later than 180 days after the effective
- 18 date of the amendatory act that added this section, the board
- 19 shall promulgate rules designating the course content for
- 20 qualified technical education programs for the various categories
- 21 and classes of registration of boiler operators and stationary
- 22 engineers.
- 23 (2) The rules described in subsection (1) shall provide that
- 24 the course content of qualified technical education programs for
- 25 entry level registrants include at least all of the following
- 26 subject matter areas:
- 27 (a) Basic functions, construction, and operation of all types

- 1 of boilers.
- 2 (b) The function of boiler appliances, accessories, and
- 3 associated auxiliaries.
- 4 (c) Materials used in boilers and the effect of temperature
- 5 extremes on those materials.
- 6 (d) The fuels used in boilers and fundamentals of
- 7 combustion.
- 8 (e) Basic electricity.
- 9 (f) Plant operation and boiler maintenance.
- 10 (g) Instrumentation and controls.
- 11 (h) Fundamental mathematics and principles of the metric
- 12 system.
- (i) General safety procedures.
- 14 (j) Recognition of dangerous operation conditions.
- 15 (3) The board shall provide that the course content for
- 16 categories and classes other than entry level registrants
- 17 includes subject matter similar to those described in
- 18 subsection (2) in the degree of depth and difficulty appropriate
- 19 for the category and class.
- 20 Sec. 13d. (1) The director shall not issue a registration
- 21 for a title described in section 13a(2) unless the applicant
- 22 meets the requirements for the classification as prescribed in
- 23 subsections (2) to (6).
- 24 (2) An applicant for a low pressure certified boiler operator
- 25 registration shall have not less than 1 year of experience
- 26 operating or maintaining low or high pressure boilers, steam
- 27 prime movers, or associated auxiliaries.

- 1 (3) An applicant for a high pressure certified boiler
- 2 operator registration shall have 1 or more of the following:
- 3 (a) Not less than 2 years of experience in the operation of a
- 4 high pressure boiler.
- 5 (b) A low pressure certified boiler operator's registration
- 6 and not less than 1 year of experience in the operation of a low
- 7 pressure boiler.
- 8 (c) Not less than 1 year of either a qualified training
- 9 program, a qualified technical education program, or an approved
- 10 apprenticeship program.
- 11 (4) An applicant for a third-class certified stationary
- 12 engineer registration shall meet 1 or more of the following
- 13 requirements:
- 14 (a) Be registered as a high pressure certified boiler
- 15 operator and have not less than 1 year of experience in the
- 16 operation of a high pressure boiler.
- 17 (b) Be registered as a low pressure certified boiler
- 18 operator, have not less than 1 year of experience in the
- 19 operation of a low pressure boiler, and have not less than 1 year
- 20 of maintenance experience on high pressure boilers and associated
- 21 auxiliaries.
- (c) Be registered as a high pressure certified boiler
- 23 operator and have not less than 1 year of boiler maintenance
- 24 experience or not less than 1 year as an apprentice in an
- 25 approved training program in a high pressure boiler plant having
- 26 an aggregate heating surface of more than 4,000 square feet.
- 27 (d) Have not less than 3 years of experience in the operation

- 1 of boilers in a high pressure boiler plant having an aggregate
- 2 heating surface of more than 4,000 square feet.
- 3 (e) Have not less than 1 year of experience in the operation
- 4 of boilers in a high pressure boiler plant having an aggregate
- 5 heating surface of more than 4,000 square feet along with
- 6 sufficient experience operating steam prime movers in excess of
- 7 10 horsepower for a combined total of not less than 3 years of
- 8 experience.
- 9 (f) Have an associate degree in energy technology or a
- 10 related field as determined by the board with a power engineering
- 11 option from a 2-year college whose program is approved by the
- 12 board and employment or cooperative education experience of not
- 13 less than 360 hours as a power engineer, boiler operator, or
- 14 stationary engineer in a steam electric generation plant or a
- 15 high pressure steam heating or process plant.
- 16 (5) An applicant for a second-class certified stationary
- 17 engineer registration shall meet 1 or more of the following
- 18 requirements:
- 19 (a) Be registered as a third-class certified stationary
- 20 engineer and have not less than 1 year of experience as a
- 21 third-class certified stationary engineer.
- 22 (b) Have a bachelor's degree in engineering, engineering
- 23 technology, heating/power technology, or energy technology from a
- 24 college or university whose program is approved by the board and
- 25 employment experience as an engineer in the engineering or
- 26 research division of a steam electric power generating plant for
- 27 not less than 1 year.

- 1 (c) Have not less than 4 years of experience in the operation
- 2 of boilers in a high pressure boiler plant having an aggregate
- 3 heating surface of more than 7,500 square feet.
- 4 (d) Have not less than 1 year of experience in the operation
- 5 of boilers in a high pressure boiler plant having an aggregate
- 6 heating surface of more than 7,500 square feet along with
- 7 sufficient experience operating steam prime movers in excess of
- 8 100 horsepower for a combined total of not less than 4 years of
- 9 experience.
- 10 (e) Have not less than 1 year of experience in the operation
- 11 of boilers in a high pressure boiler plant having an aggregate
- 12 heating surface of more than 7,500 square feet along with
- 13 sufficient experience operating boilers in a high pressure boiler
- 14 plant having an aggregate heating surface of more than 4,000
- 15 square feet for a combined total of not less than 4 years of
- 16 experience.
- 17 (6) An applicant for a first-class certified stationary
- 18 engineer registration shall meet 1 or more of the following
- 19 requirements:
- 20 (a) Be registered as a second-class certified stationary
- 21 engineer and have not less than 2 years of experience as a
- 22 second-class stationary engineer.
- 23 (b) Have not less than 6 years of experience in the operation
- 24 of boilers in a high pressure boiler plant having an aggregate
- 25 heating surface of more than 20,000 square feet.
- 26 (c) Have not less than 2 years of experience in the operation
- 27 of boilers in a high pressure boiler plant having an aggregate

- 1 heating surface of more than 20,000 square feet along with
- 2 sufficient experience operating steam prime movers in excess of
- 3 200 horsepower for a combined total of not less than 6 years of
- 4 experience.
- 5 (d) Have not less than 2 years of experience in the operation
- 6 of boilers in a high pressure boiler plant having an aggregate
- 7 heating surface of more than 20,000 square feet along with
- 8 sufficient experience in the operation of boilers in a high
- 9 pressure boiler plant having an aggregate heating surface of more
- 10 than 7,500 square feet of heating surface for a combined total of
- 11 not less than 6 years of experience.
- 12 (e) Complete a 4-year approved apprenticeship program or a
- 13 4-year qualified training program.
- (f) Complete a 4-year program with a bachelor's degree from a
- 15 college or university in engineering, engineering technology,
- 16 heating/power technology, or energy technology whose program is
- 17 approved by the board and which includes a hands-on power option
- 18 from a 2-year community college program or the equivalent, as
- 19 determined by the board, and not less than 1 year of employment,
- 20 internship, or cooperative education experience in a steam
- 21 electric generation plant or high pressure steam heating process
- 22 plant.
- 23 Sec. 14. (1) An inspector's, repairer's, or installer's
- 24 The chief inspector may suspend the license may be suspended by
- 25 the chief inspector for of an inspector, repairer, or installer
- 26 or the registration of a certified boiler operator or certified
- 27 stationary engineer due to the incompetence of the -holder

- 1 thereof or for wilful registrant or licensee or due to willful
- f 2 falsification of f -any a matter or statement contained in f -his
- 3 that registrant's or licensee's application or in a report of
- 4 -any inspection made by -him the registrant or licensee.
- 5 Written notice of the suspension shall be given by the chief
- 6 inspector within -not more than 10 days after the suspension to
- 7 the registrant or licensee, —his— the registrant's or licensee's
- 8 employer, and the board. A person whose registration or license
- 9 has been suspended may appeal to the board as provided in
- 10 section 22 and be present in person and be represented by counsel
- 11 at the hearing of the appeal.
- 12 (2) If the board has reason to believe that a registrant or
- 13 licensee is no longer qualified to hold his or her registration
- 14 or license, the board, upon not less than 10 days' written notice
- 15 to the registrant or licensee and -his- the registrant's or
- 16 licensee's employer, shall hold —a— an administrative hearing at
- 17 which the registrant or licensee and his or her employer shall
- 18 have an opportunity to be heard. If, as a result of the hearing,
- 19 the board finds that the registrant or licensee is no longer
- 20 qualified to hold his or her registration or license, the board
- 21 shall recommend to the -commissioner director that the
- 22 registration or license be revoked, and the -commissioner
- 23 director shall -thereupon- immediately revoke -such- the
- 24 registration or license. -forthwith.
- 25 (3) A person whose registration or license has been suspended
- 26 may apply, after 90 days from the date of the suspension, for
- 27 reinstatement of the registration or license.

- 1 Sec. 24. (1) It shall be unlawful for any An individual,
- 2 or other person, firm, partnership, or corporation to shall not
- 3 operate <u>in this state</u> a boiler without a valid inspection
- 4 certificate. The operation of a boiler without -such- a valid
- 5 inspection certificate -, or at a pressure exceeding that
- 6 specified in -such the inspection certificate -, is a
- 7 misdemeanor on the part of the owner, user, or operator thereof
- 8 and shall be punishable by a fine not exceeding \$500.00, or
- 9 imprisonment -not to exceed for not more than 60 days, or by a
- 10 fine of not more than \$500.00, or both. Each day of the unlawful
- 11 operation is a separate offense.
- 12 (2) A person or business entity using a title described in
- 13 section 13a(2) without a registration issued under this act or
- 14 without an exemption from registration under this act is guilty
- 15 of a misdemeanor punishable by imprisonment for not more than 60
- 16 days, a fine of not more than \$500.00, or both.

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