

BOILER AND UNFIRED PRESSURE VESSEL LAW
Act of Jun. 18, 1998, P.L. 655, No. 85
AN ACT

Cl. 35

Regulating the construction, equipment, maintenance, operation and inspection of boilers and unfired pressure vessels; granting certain authority to and imposing certain duties upon the Department of Labor and Industry; providing for penalties; and making a repeal.

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The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

Section 1. Short title.

This act shall be known and may be cited as the Boiler and Unfired Pressure Vessel Law.

Section 2. Definitions.

The following words and phrases when used in this act shall have the meanings given to them in this section unless the context clearly indicates otherwise:

"Accident." A failure of a boiler or unfired pressure vessel resulting in personal injury or property loss.

"ASME." The American Society of Mechanical Engineers.

"Authorized private inspection agency." An entity which employs one or more commissioned private inspectors possessing valid current commissions.

"Board." The Industrial Board of the Commonwealth.

"Boiler." Any closed vessel in which water is heated, steam is generated, steam is superheated or any combination thereof under pressure or vacuum for use external to itself by the direct application of heat from the combustion of fuels or from electricity. The term shall include fired vessels for heating or vaporizing liquids other than water where these vessels are separate from processing systems and are complete within themselves. The term does not include kitchen-type appliances or sterilizers used in medical applications when the device is

designed not to exceed 5 psi internal pressure whether by use of a relief valve or other design.

"Commissioned private inspector." A person not employed by the Department of Labor and Industry nor by an insurance company or owner of one or more boilers or unfired pressure vessels who has satisfied the requirements for obtaining and maintaining a commission to perform inspections of boilers and unfired pressure vessels in this Commonwealth, under this act and the regulations promulgated by the department.

"Department." The Department of Labor and Industry of the Commonwealth.

"Farms." Any properties or structures used primarily for production and/or raising of agriculture.

"Field inspection." An internal/external inspection as defined by the National Board Inspection Code (ANSI/NB-23).

"Heat exchanger." A device used for the purpose of transferring heat or cold from one medium to another and having passages for each of the two streams of medium separated by a heat-exchange surface frequently in the form of plates or tubes.

"Heating boiler." A closed vessel in which water is heated or steam is generated by the direct application of heat from the combustion of fuels or from electricity for the purpose of providing heat to any part of a building. The heat may be distributed in the form of radiators, baseboard units, in-floor convection coils or air heating coils for hot air heat. The term includes cast iron boilers, fire tube boilers, water tube boilers, fired heat exchangers and instantaneous hot water heaters or any type of heater, boiler or heat exchanger.

"Inspector." A person commissioned by the Department of Labor and Industry to field-inspect boilers or unfired pressure vessels in this Commonwealth. The term includes a commissioned private inspector.

"Instantaneous heating boiler." A vessel known as an instantaneous, tankless, continuous flow, in-line, flash, on-demand or instant-on water heater designed and built to provide, but not to store, hot water used in hot water heating systems, similar to an instantaneous water heater, but constructed to meet the requirements of a heating boiler.

"Instantaneous water heater." A vessel known as an instantaneous, tankless, continuous flow, in-line, flash, on-demand or instant-on water heater designed and built to provide, but not to store, hot water and which is limited to hot water supply.

"Modular boiler." An assembly of individual steam or hot water heating boilers consisting of a group of individual boilers called modules, intended to be installed as a unit, with no intervening stop valves between the modules, with a single inlet and a single outlet. Modules may be under one jacket or may be individually jacketed. The term does not include assemblies of fired heat exchangers constructed and stamped as a part, assembled under one jacket and connected with no intervening stop valves.

"National Board." The National Board of Boiler and Pressure Vessel Inspectors.

"Person." Any individual, firm, partnership, unincorporated association, corporation or municipality. The term shall include the Commonwealth.

"Portable boiler." A boiler mounted on or in a truck, trailer or skid that is used as a temporary installation. The term includes portable boilers that heat any medium used in a process.

"Power boiler." A boiler in which steam or other vapor is generated at a pressure of more than 15 psi.

"Process boiler." Any vessel in which steam is generated or superheated under pressure or vacuum for use external to itself by direct or indirect application of heat. The source of heat must be in part or whole from a process other than the boiler itself. In order to be classified as a process boiler, the boiler must be directly tied to another process other than the generation of steam.

"Storage water heater." A vessel in which water is heated by the direct application of heat from the combustion of fuels or from electricity for the purpose of providing and storing hot water, which operates at a maximum pressure of 160 psi and a maximum temperature of 210°F and is limited to hot water supply.

"Unfired pressure vessel." Any vessel in which pressure is obtained from an external source or from an indirect application of heat.

(2 amended Nov. 27, 2013, P.L.1149, No.104)

Section 3. Compliance required.

It shall be unlawful to install or use any boiler or unfired pressure vessel in this Commonwealth which does not comply with the provisions of this act and the regulations promulgated under this act.

Section 4. Design and construction.

(a) General rule.--Every boiler or unfired pressure vessel used or destined for use in this Commonwealth shall be designed, constructed and installed in accordance with the codes adopted under this act or any successor code adopted by the department and shall be operated and maintained to safely sustain the pressure at which the boiler or unfired pressure vessel is designed and intended to operate.

(b) Interim requirements.--The department shall use the following codes and editions until such time as new regulations are promulgated and become effective:

(1) ASME Boiler and Pressure Vessel Codes 2010 edition and 2011 addenda.

(2) National Board Inspection Code (NBIC) (ANSI/NB-23), 2011 edition.

(3) National Fire Protection Association (NFPA) Code Pamphlet 85 (Boiler and Combustion Systems Hazards Code), 2011 edition.

(4) ASME CSD1 Code Controls and Safety Devices, 2009 edition.

(5) ASME Piping Code ASME B31.1 (Power Piping) and ASME B31.3 (Process Piping), 2010 edition.

(4 amended Nov. 27, 2013, P.L.1149, No.104)

Section 5. Construction of act.

Nothing in this act shall be construed to apply to:

(1) Boilers and unfired pressure vessels owned or operated by the Federal Government.

(2) Boilers and unfired pressure vessels regulated under the Atomic Energy Act of 1954 (68 Stat. 921, 42 U.S.C. § 2011 et seq.).

(3) Pressure vessels used for the transportation of compressed gases if constructed and operated in compliance with specifications and regulations of the United States Department of Transportation. This paragraph includes the stationary use of these vessels.

(4) Air tanks located on vehicles operating under the rules of other Commonwealth agencies and used for carrying passengers or freight.

(5) Air tanks installed on the right-of-way of railroads and used directly in the operation of switcher and signals and under Federal or other Commonwealth agency jurisdiction.

(6) Boilers located in single-family dwellings, multiunit dwellings with four or fewer units.

(7) Boilers located in farms, except in sales areas which are accessible to the public.

(8) Storage water heaters and instantaneous water heaters if all of the following limitations are not exceeded:

(i) A heat input of 200,000 BTUs/hour (58.6kW).

(ii) A water temperature of 210°F (99°C).

(iii) A nominal water-containing capacity of 120 gallons (454 L).

(9) Unfired pressure vessels having an internal or external operating pressure of no more than 15 psi with no limitation on size when equipped with approved safety devices.

(10) Unfired pressure vessels with a nominal water-containing capacity of up to 120 gallons containing liquid under pressure and not exceeding 100 psi at ambient temperature. These vessels include unfired pressure vessels that contain air, which is trapped in the system and where the compression air serves only as a cushion.

(11) Filters and softeners with a nominal water-containing capacity of 120 gallons or less and pressures not exceeding 100 psi at ambient temperature.

(12) Air conditioner heat exchangers or chillers and refrigeration unit heat exchangers with a design pressure not more than 300 psi and a water temperature not more than 210°F.

(13) Any other type of boiler or unfired pressure vessel that the department may identify by regulation.

(5 amended Nov. 27, 2013, P.L.1149, No.104)

Section 6. Registration of boilers and unfired pressure vessels.

(a) Registration required.--The owner of every boiler or unfired pressure vessel subject to this act shall register with the department every boiler or unfired pressure vessel it operates, showing compliance with the provisions of this act and the regulations promulgated under this act. The registration shall be in a format prescribed by the department.

(b) Change of location.--If the location of any boiler or unfired pressure vessel, including a portable boiler, is changed, a change of address shall be filed with the department within ten days of the change in a format prescribed by the department.

(c) Change of use.--If the boiler or unfired pressure vessel is to be used for a purpose other than that shown on the original registration, the owner must reregister the equipment with the department prior to the change of use.

(d) Inspection.--No boiler or unfired pressure vessel shall be operated in this Commonwealth until it is inspected under sections 9 and 10 and the department issues a certificate of operation under section 11.

(6 amended Nov. 27, 2013, P.L.1149, No.104)

Section 7. Shop inspection.

(a) Inspection required.--Every boiler or unfired pressure vessel destined for use in this Commonwealth shall be inspected during its construction by an individual who has a valid National Board commission to perform an inspection. Every boiler or unfired pressure vessel which has been so inspected shall,

upon completion, have placed upon it the appropriate ASME symbol. The following apply:

(1) The department may accept comparable shop inspection and quality control standards which are equivalent to or exceed the ASME or National Board standards.

(2) A manufacturer's data report for every boiler or unfired pressure vessel inspected under this subsection shall be registered with the National Board.

(b) Boiler not shop-inspected.--Any boiler or unfired pressure vessel which has not been shop-inspected and registered with the National Board as required under subsection (a) may be installed within this Commonwealth if either of the following requirements are met:

(1) Submission of an ASME data report and payment of a special equipment application fee.

(2) Submission of all of the documentation under this paragraph. For purposes of this paragraph, all tests shall be made under the supervision of a Commonwealth-commissioned inspector or an individual holding a valid National Board commission. The required documentation is as follows:

(i) A request for approval to install the equipment, in a form prescribed by the department, to the department.

(ii) Furnishing of mill test reports of material to show compliance with the ASME Code or another code accepted by the department. If mill test reports or other required information cannot be produced, the department may, in its discretion, accept other documentation.

(iii) Furnishing of calculations and stress analyses showing the maximum allowable working pressure under the ASME Code or another code accepted by the department. These stress analyses shall be certified by a registered professional engineer.

(iv) Documentation of X-ray testing where equipment is of welded construction. The documentation shall show that all seams required to be X-rayed according to the ASME Code or another code accepted by the department were X-rayed.

(v) Establishment that welding meets requirements of the ASME Code or another code accepted by the department. If names of welders or other required information cannot be produced, the department may, in its discretion, accept other documentation.

(vi) Subjection of equipment to nondestructive examination or test that verifies structural integrity.

(vii) Submission of a data sheet comparable to the appropriate ASME data report form and certified by a National Board-commissioned inspector.

(viii) Payment of a special equipment application fee.

(c) Exemption.--A boiler built prior to December 31, 1929, or an unfired pressure vessel built prior to June 1, 1938, which has not been removed from this Commonwealth shall be exempt from the requirements of subsections (a) and (b).

(7 amended Nov. 27, 2013, P.L.1149, No.104)
Section 8. Repairs and alterations.

(a) General rule.--Repairs and alterations to a boiler or unfired pressure vessel shall be made in accordance with the edition of the code currently adopted by the department at the time of the repair or alteration. If it is not technically feasible to repair or alter the boiler or unfired pressure vessel to the current code, the owner may use the code in effect

at the time the boiler or unfired pressure vessel was constructed. Any repair or alteration shall be performed by a person holding a National Board inspection code "R," "VR" or "NR" repair certificate.

(b) Alternative repair or alteration guidelines.--The department may approve alternative repair or alteration guidelines for any boiler or unfired pressure vessel subject to section 7(b).

(8 amended Nov. 27, 2013, P.L.1149, No.104)

Section 9. Field inspection.

(a) Insurance company.--If a boiler or unfired pressure vessel is insured by a company authorized to insure boilers or unfired pressure vessels in this Commonwealth, the owner may request that the insurance company assure that a field inspection is made by an inspector employed by the insurance company. The furnishing of or failure to furnish field inspections, insurance inspections or advisory services in connection with or incidental to the issuance or renewal of a policy of property, casualty or boiler and machinery insurance shall not subject the insurer, whether domestic or foreign, its agents, employees or service contractors to liability for damages from injury, death or loss occurring as a result of any act or omission in the course of those services. This provision shall not apply in the event the intentional act of the insurer, its agent, employee or service contractor created the condition that was the proximate cause of injury, death or loss.

(b) Inspector employed by owner.--A boiler or unfired pressure vessel may be field-inspected by an inspector in the employ of the owner if all of the following apply:

(1) The inspector is a full-time employee of the owner for the purpose of making inspections of boilers or unfired pressure vessels used or to be used by the owner.

(2) The inspector has obtained a commission from the department as required under section 12.

(3) The owner continuously maintains an engineering division.

(4) The boiler or unfired pressure vessel is involved in process operations, of which a knowledge of the process, in addition to that of the construction of the vessels, is required by the inspector.

(5) The owner files regular field inspection reports with the department in a form approved by the department and pays the certificate fee set by the department through regulation.

(c) Commissioned private inspector.--A boiler or unfired pressure vessel may be field inspected by a commissioned private inspector if all of the following apply:

(1) The inspector, at the time of inspection, possesses a valid commission issued by the department under section 12.

(2) The inspector is employed by or possesses a certification as an authorized private inspection agency under section 12.

(3) The boiler or unfired pressure vessel is not insured by a company authorized to insure boilers or unfired pressure vessels in this Commonwealth, unless the inspector has contracted with such company to perform the field inspection.

(d) Department inspector.--If the owner does not assure that a field inspection is made by an inspector, the boiler or unfired pressure vessel shall be inspected by a department inspector. The owner shall be responsible to pay the department a fee for the inspection.

(e) Failure to comply.--If the owner of a boiler or unfired pressure vessel fails to assure a field inspection is performed in accordance with the schedule set forth in section 11, the owner shall be subject to appropriate enforcement action as provided under this act.

(f) Report.--Each inspector shall forward to the department a report of each field inspection made of any boiler or unfired pressure vessel showing the exact condition of the boiler or unfired pressure vessel. Inspection reports shall be submitted within 15 days of the date of inspection. Inspection reports received more than 15 days after the inspection was made may be considered invalid by the department. The report shall be filed on the form and in the manner prescribed by the department.

(g) Altering inspection.--(Deleted by amendment).

(h) Certificate of operation.--(Deleted by amendment).

(i) Extension.--(Deleted by amendment).

(9 amended Nov. 27, 2013, P.L.1149, No.104)

Section 10. Field inspection frequency.

(a) General rule.--A boiler or unfired pressure vessel shall be inspected before being placed into service. Regular field inspection shall be made on a periodic basis as provided in this section.

(b) Power boilers and process boilers.--Power boilers and process boilers shall be internally field inspected once every 12 months, except as follows:

(1) Power boiler internal inspections may be extended to 24 months if the following requirements are met:

(i) Continuous boiler water treatment under the direct supervision of persons trained and experienced in water treatment for the purpose of controlling and limiting corrosion and deposits.

(ii) Recordkeeping available for review showing:

(A) the date and time the boiler is out of service and the reason therefore; and

(B) daily analysis of water samples that adequately show the conditions of the water and any elements or characteristics which are capable of producing corrosion or other deterioration to the boiler or its parts.

(iii) Annual external inspections are performed by a Commonwealth-commissioned inspector, which shall include a review of items under subparagraph (ii).

(iv) The boiler is operated under direct supervision of persons competent in all aspects of boiler operations.

(v) Inspection records demonstrate that no significant scaling, corrosion, erosion or overheating has occurred.

(2) Process boiler internal inspections may be extended to 60 months if:

(i) Conditions under paragraph (1)(i), (ii), (iii) and (v) are met.

(ii) The boiler is in continuous operation and is fully attended.

(c) Low-pressure steam vapor, hot water heating and supply boilers.--Low-pressure steam vapor, hot water heating and hot water supply boilers shall be field inspected every two years.

(d) Unfired pressure vessels.--Unfired pressure vessels shall be field inspected every three years.

(e) Alteration of inspection schedule.--The department, upon request of the owner or insurer of the boiler or unfired

pressure vessel, may alter the inspection schedule for a period of not more than six months.

(f) Boilers determined deficient.--If an inspector finds that a boiler is dangerous to life or property, the inspector shall immediately notify the department of all deficiencies. If the department determines that a boiler or unfired pressure vessel is not in a safe condition to be operated, the boiler or unfired pressure vessel shall not be operated until the following occur:

(1) Proper repairs are made in accordance with this act.

(2) An inspection of the boiler or unfired pressure vessel indicates that it is in a safe condition to be operated.

(3) A certificate of operation is issued by the department.

(10 repealed and added Nov. 27, 2013, P.L.1149, No.104)
Section 11. Certificates of operation.

If the inspection report received pursuant to section 9(f) indicates that the boiler or unfired pressure vessel is in compliance with the applicable codes and is safe for operation, the department shall issue a certificate of operation. The certificate of operation is valid upon payment of the appropriate fee.

(11 repealed and added Nov. 27, 2013, P.L.1149, No.104)
Section 12. Inspector commissions and authorized private inspection agencies.

(a) Inspector commissions.--

(1) No person shall perform field inspections until the person has passed an examination administered by the department.

(2) The department shall issue an inspector commission if the applicant passes the examination under paragraph (1) and remits the appropriate fee.

(3) An inspector shall renew an inspection commission annually by submitting an application to the department, accompanied by the appropriate fee.

(b) Authorized private inspection agencies.--

(1) Current certification as an authorized private inspection agency is required to conduct inspections of boilers or unfired pressure vessels if the inspector is not employed by an insurance company authorized to insure boilers or unfired pressure vessels in this Commonwealth, by the owner of the boiler or unfired pressure vessel or by the department.

(2) Any person, firm or corporation intending to be commissioned by the department to conduct inspections in the capacity of a commissioned private inspector shall first obtain certification as an authorized private inspection agency.

(3) The department may promulgate regulations for the certification and renewal of certification of authorized private inspection agencies. The regulations shall include:

(i) Submission of an application on a form established by the department.

(ii) Payment of a fee to be established by the department.

(iii) Submission of satisfactory proof of liability insurance for the purpose of compensation to third parties for injuries to persons or property, including, but not limited to, bodily injury and property damage, which result from or relate to an inspector's or agency's

negligent inspection or recommendation for certification of a boiler or pressure vessel, in an amount to be established by the department.

(iv) Submission of proof of accreditation as an authorized inspection agency by the National Board.

(c) Lack of direct or indirect interest.--No person or entity shall be commissioned to act as an inspector or as an authorized private inspection agency if the person or entity possesses any direct or indirect interest in the manufacture, sale or repair of boilers or unfired pressure vessels. Any commissioned inspector or authorized private inspection agency that acquires an interest shall immediately disclose the interest to the department. The acquisition of the interest shall be grounds for suspension or revocation of a commission.

(d) Revocation.--The Secretary of Labor and Industry may suspend or revoke an inspector commission or commission as an authorized private inspection agency for just cause. Proceedings under this section are subject to the right of notice, hearing and adjudication under 2 Pa.C.S. (relating to administrative law and procedure). Proceedings shall be conducted under 1 Pa. Code Pt. II (relating to general rules of administrative practice and procedure).

(12 repealed and added Nov. 27, 2013, P.L.1149, No.104)
Section 13. Powers of department.

(a) Enforcement and regulation.--The department shall enforce this act and is empowered to promulgate and enforce regulations to implement this act. The regulations may be based upon generally accepted national or international engineering standards, formulas and practices established and pertaining to boiler and unfired pressure vessel construction insofar as they are consistent with this act.

(b) Interim regulations.--The department shall use the current regulations under 34 Pa. Code Ch. 3a (relating to boiler and unfired pressure vessel regulations) until new regulations are promulgated and published as final rule in the Pennsylvania Bulletin and become effective, unless otherwise specified in this act.

(13 repealed and added Nov. 27, 2013, P.L.1149, No.104)
Section 14. Department investigation.

(a) Authority to investigate.--The department is authorized to investigate violations of this act.

(b) Right of entry.--For the purposes of enforcing this act, the department shall have the power to enter any building or structure housing boilers or unfired pressure vessels. No person shall hinder, delay or interfere with the department in the performance of its duty nor refuse information necessary to determine whether the provisions of this act have been or will be complied with.

(14 repealed and added Nov. 27, 2013, P.L.1149, No.104)
Section 15. Accident report.

The owner of a boiler or unfired pressure vessel shall immediately notify the department of any accident involving the boiler or unfired pressure vessel. No part of the affected equipment shall be removed or disturbed without the permission of the department except to perform emergency rescue or limit serious property damage. Within five days of the accident, the owner shall file with the department a written report in a form prescribed by the department.

(15 repealed and added Nov. 27, 2013, P.L.1149, No.104)
Section 16. Fees.

Fees for inspections, certificates of operation, inspector commission examinations, inspector commission renewals,

registration of equipment and special equipment applications shall be as set forth in section 613-A of the act of April 9, 1929 (P.L.177, No.175), known as The Administrative Code of 1929.

(16 repealed and added Nov. 27, 2013, P.L.1149, No.104)
Section 17. Department enforcement.

(a) Authority.--The department may, upon discovering a violation of this act, issue an order to place a boiler or unfired pressure vessel out of service. An order under this section shall comply with all of the following:

- (1) Be in writing.
- (2) State any corrective action necessary.

(b) Appeal.--

(1) A person may appeal to the board the issuance of an order under subsection (a).

(2) This subsection is subject to 2 Pa.C.S. Chs. 5 Subch. A (relating to practice and procedure of Commonwealth agencies) and 7 Subch. A (relating to judicial review of Commonwealth agency action).

(17 repealed and added Nov. 27, 2013, P.L.1149, No.104)
Section 18. Administrative penalties.

(a) Administrative penalty.--The department may impose the following administrative penalties for each violation of this act:

- (1) A fine of no more than \$2,500 for each violation of this act.
- (2) Any other corrective action that it deems necessary to address a violation of this act.

(b) Separate violation.--A violation of this act occurs for each boiler or unfired pressure vessel that is found to be in violation of this act.

(c) Procedure.--This section is subject to 2 Pa.C.S. Chs. 5 Subch. A (relating to practice and procedure of Commonwealth agencies) and 7 Subch. A (relating to judicial review of Commonwealth agency action).

(18 repealed and added Nov. 27, 2013, P.L.1149, No.104)
Section 19. Penalties. (19 repealed Nov. 27, 2013, P.L.1149, No.104)

Section 20. Repeal.

The act of May 2, 1929 (P.L.1513, No.451), referred to as the Boiler Regulation Law, is repealed.

Section 21. Effective date.

This act shall take effect as follows:

- (1) Section 8 shall take effect in one year.
- (2) This section shall take effect immediately.
- (3) The remainder of this act shall take effect in 30 days.