

© Queen's Printer for Ontario, 2001

This is an unofficial version of Government of Ontario legal materials.

This version is prepared for purposes of convenience only. The authoritative text is set out in the official version.

Technical Standards and Safety Act, 2000
Loi de 2000 sur les normes techniques et la sécurité

ONTARIO REGULATION 220/01

No Amendments

BOILERS AND PRESSURE VESSELS

This Regulation is made in English only.

Interpretation

1. (1) In this Regulation,

“alteration” means any change in the item described on the original manufacturer’s data report that requires a change of design calculations or otherwise affects the pressure-containing capability of a boiler or pressure vessel;

“boiler” means a fired vessel in which gas or vapour may be generated or a gas, vapour or liquid may be put under pressure by heating;

“certificate of inspection” means a certificate issued under this Regulation in respect of an inspection of a boiler or pressure vessel;

“code adoption document” means the “Boilers and Pressure Vessels Code Adoption Document” adopted as part of this Regulation under Ontario Regulation 223/01;

“design”, in reference to a boiler, pressure vessel or piping, means its plan or pattern and includes, where required, drawings, specifications, calculations and test data, or a model;

“fired vessel” means a vessel that is directly heated by,

- (a) a flame or the hot gases of combustion,
- (b) electricity, or
- (c) any means other than a thermal liquid;

“fitting” means an appurtenance that is attached to or used in connection with a boiler, a pressure vessel or piping and includes such things as valves, gauges and controlling devices and other pressure-retaining components;

“insurer” means a person licensed under the *Insurance Act* to undertake boiler and machinery insurance as defined by that Act;

“low pressure boiler” means,

- (a) a boiler that is intended to generate steam or other vapour at a pressure of 15 psi (103 kPa) or less, or
- (b) a boiler that is intended to be operated at a pressure of 160 psi (1,100 kPa) or less where the water temperature at any boiler outlet is 250°F (121°C) or less;

“maximum allowable working pressure” means the maximum pressure at which a boiler, pressure vessel, fitting or piping is permitted to be operated or used under this Regulation;

“owner” includes a person for the time being in possession or control of a boiler, pressure vessel, fitting or piping;

“piping” means a system of pipes that is used to contain a gas, vapour or liquid under pressure and includes any boiler, pressure vessel or fitting connected to such system;

“pressure” means pressure above prevailing atmospheric pressure;

“pressure vessel” means any enclosed unfired vessel that contains gas, vapour or liquid under pressure;

“professional engineer” means a person who is licensed under the *Professional Engineers Act*;

“repair” means any work necessary to restore a boiler or pressure vessel to a safe and satisfactory operating condition that does not result in a deviation from the original design;

“used boiler, pressure vessel, fitting or piping” means a boiler, pressure vessel, fitting or piping that has been in service and that has been moved from its previous site for use elsewhere. O. Reg. 220/01, s. 1 (1).

(2) In the event of a conflict between a provision of this Regulation and the code adoption document, this Regulation prevails. O. Reg. 220/01, s. 1 (2).

(3) A reference in this Regulation to a director is a reference to the director to whom the subject matter of this Regulation is assigned. O. Reg. 220/01, s. 1 (3).

Application

2. (1) This Regulation applies to the design, construction, maintenance, use, operation, repair and service of boilers, pressure vessels and piping. O. Reg. 220/01, s. 2 (1).

(2) This Regulation does not apply to,

- (a) a boiler that is used in connection with a hot liquid heating system that has no valves or other obstructions to free circulation between the boiler and an expansion tank that is vented freely to the atmosphere;
- (b) a low pressure boiler that has either a wetted heating surface of 30 square feet (2.79 square metres) or less, or a power rating of 30 kW or less;
- (c) a boiler having a heating surface of 10 square feet (0.93 square metres) or less;
- (d) a pressure vessel, fitting or piping that contains a gas, vapour or liquid at a maximum allowable working pressure of 15 psi (103 kPa) or less;
- (e) a pressure vessel, fitting or piping that contains liquids not more hazardous than water and that operate at a temperature of 150°F (65°C) or less and at a maximum allowable working pressure of 250 psi (1,717 kPa) or less;
- (f) a pressure vessel for domestic use that has an internal diameter of 24 inches (610 mm) or less for the storage of hot water where the temperature does not exceed 212°F (100°C) and the heat input is 120 kW or less;
- (g) a pressure vessel that is used exclusively for hydraulic purposes at a temperature no greater than 150°F (65°C);
- (h) a pressure vessel that has an internal diameter of 24 inches (610 mm) or less that is connected in a liquid pumping system at a temperature that does not exceed 150°F (65°C) and that contains air or an inert gas compressed to serve as a cushion;
- (i) a refrigeration piping that has a capacity of three tons (11 kW) or less of refrigeration;
- (j) pressure piping that forms part of the heating system in a building that is,
 - (i) heated by steam at a pressure not exceeding 15 psi (103kPa), or
 - (ii) heated by water at a pressure not exceeding 160 psi (1,100 kPa) and at a temperature that does not exceed 250°F (121°C);
- (k) compressed air piping, up to and including ¾ inch nominal pipe size;
- (l) hot oil piping, where the pressure is not greater than 100 psi (687 kPa) and the operating temperature is not less than 50°F (10°C) lower than the flash point of the oil;
- (m) pressure containers that form an integral part of or that are a component of rotating or reciprocating mechanical devices, including pumps, compressors, turbines, generators, engines and hydraulic or pneumatic cylinders where the primary design considerations or stresses, or both, are derived from the functional requirements of the device;
- (n) automatic fire protection systems that are designed and installed in accordance with Ontario Regulation 403/97 (The Building Code) and Ontario Regulation 388/97 (Fire Code);
- (o) any component or system related to the subject matter of this Regulation that is regulated under any Act or regulation of the Government of Canada unless specifically requested otherwise by the Government of Canada;
- (p) buried water piping that operates at a temperature of 150°F (65°C) or less at a maximum allowable working pressure of 600 psi (4,120 kPa).
- (q) a pressure vessel having a capacity of 1 and one-half (1½) cubic feet (42.5L) or less, that is not a fitting;
- (r) a pressure vessel having an internal diameter of six (6) inches (152mm) or less. O. Reg. 220/01, s. 2 (2).

General requirement for compliance

3. (1) Every person engaged in an activity, use of equipment, process or procedure to which the Act and this Regulation apply shall comply with the Act and this Regulation. O. Reg. 220/01, s. 3 (1).

(2) For the purposes of subsection (1), the reference to an activity, use of equipment, process or procedure includes, but is not limited to, design, manufacture, installation, repair, alteration, maintenance, service, use or disposal. O. Reg. 220/01, s. 3 (2).

(3) Every owner of a boiler, pressure vessel or piping shall ensure that the boiler, pressure vessel or plant is maintained in safe working condition and operated safely. O. Reg. 220/01, s. 3 (3).

Design registration requirement

4. (1) Subject to subsection (2), no person shall manufacture a boiler, pressure vessel, fitting or piping for use in Ontario unless its design is registered with the director. O. Reg. 220/01, s. 4 (1).

(2) A person who submits a design submission for registration may commence construction of the boiler, pressure vessel, fitting or piping before the submission is registered if the person assumes all risks related to the construction, whether for an installation or alteration. O. Reg. 220/01, s. 4 (2).

(3) The design for a boiler or pressure vessel shall bear the signature and seal of a professional engineer who is experienced in the design of boilers, pressure vessels, piping or fittings. O. Reg. 220/01, s. 4 (3).

(4) Where the designer, manufacturer, installer or owner of a boiler, pressure vessel, fitting or piping proposes a change to its registered design, as determined in accordance with the code adoption document, they shall submit the design and specifications of the change to the director and obtain registration before beginning to make the change. O. Reg. 220/01, s. 4 (4).

(5) If an inspector finds, after its manufacture or installation, that a boiler, pressure vessel, fitting or piping for which a design registration has been issued is defective, the inspector may, despite the fact that the registration has been issued, permit the boiler, pressure vessel, fitting or piping to be operated or used within such limits of safety as the inspector considers adequate in the circumstances and shall require the manufacturer or installer to correct the defects within such period as the inspector may allow. O. Reg. 220/01, s. 4 (5).

(6) If the defects found under subsection (5) are due to the design and specifications of the boiler, pressure vessel, fitting or piping and, in the director's opinion, they cannot be remedied, the director shall cancel the design registration, and no additional boiler, pressure vessel, fitting or piping shall be manufactured or installed based on that design. O. Reg. 220/01, s. 4 (6).

(7) Where a boiler, pressure vessel, piping or fitting has not been manufactured or installed in conformity with its registered design but nevertheless may be used safely at a lower pressure than its design pressure, the inspector shall fix its maximum allowable working pressure having regard to its design, condition and installation and the purpose for which it is to be operated or used. O. Reg. 220/01, s. 4 (7).

(8) Where an unused boiler or pressure vessel has been manufactured and its design and specifications have not been registered, the director may cause it to be inspected and, if satisfied that it may be operated or used safely, may issue a certificate of inspection for it as a used boiler or pressure vessel. O. Reg. 220/01, s. 4 (8).

Requirement for licence

5. No person shall operate or use or permit a boiler, pressure vessel, fitting or piping to be operated or used unless a valid certificate of inspection has been issued in respect of the boiler, pressure vessel, fitting or piping. O. Reg. 220/01, s. 5.

Operation of boiler, etc.

6. (1) No person shall operate or use or permit a boiler, pressure vessel, fitting or piping to be operated or used at a pressure higher than its maximum allowable working pressure as shown in the licence. O. Reg. 220/01, s. 6 (1).

(2) Where there is any possibility of any gas, vapour or liquid causing injury to a person inspecting, repairing or maintaining a boiler, pressure vessel, fitting or piping, the owner or other person responsible for it or in charge of it shall ensure that,

- (a) a competent person is stationed so as to prevent any gas, vapour or liquid from entering the boiler, pressure vessel, fitting or piping or any part of it; and
- (b) such other measures are taken to the satisfaction of the person inspecting, repairing or maintaining the boiler, pressure vessel, fitting or piping to ensure his or her safety. O. Reg. 220/01, s. 6 (2).

(3) Every boiler, pressure vessel and piping shall have adequate pressure relief devices set to relieve at or below its maximum allowable working pressure in accordance with the code adoption document. O. Reg. 220/01, s. 6 (3).

(4) No person shall alter, interfere with or render inoperative any fitting that is attached for safety purposes to a boiler, pressure vessel, fitting or piping while it is in operation or use without the consent of an inspector. O. Reg. 220/01, s. 6 (4).

(5) No person shall operate or use or permit a boiler, pressure vessel, fitting or piping to be operated or used if it has been sealed by an inspector. O. Reg. 220/01, s. 6 (5).

(6) No person shall move a boiler, pressure vessel, fitting or piping that has been sealed to another location for operation or use without the consent of the director. O. Reg. 220/01, s. 6 (6).

(7) Every owner of a boiler, pressure vessel, fitting or piping shall ensure that it is maintained in a safe working condition and operated safely. O. Reg. 220/01, s. 6 (7).

Alterations

7. (1) No person shall alter a boiler, pressure vessel, fitting or piping unless the alteration is registered and is inspected by an inspector. O. Reg. 220/01, s. 7 (1).

(2) No person shall put into operation or use,

- (a) a boiler or pressure vessel to which an alteration has been made unless a new registration and certificate of inspection have been issued;
- (b) a piping or fitting to which an alteration has been made unless a new registration has been issued. O. Reg. 220/01, s. 7 (2).

(3) No person shall repair a boiler, pressure vessel, fitting or piping without the prior concurrence of and subsequent inspection by an inspector or, where the thing is insured, without the prior concurrence of and subsequent inspection by the insurer, as the case requires. O. Reg. 220/01, s. 7 (3).

(4) A boiler, pressure vessel, fitting or piping that is altered or repaired under this section shall not be operated or used or be permitted to be operated or used unless it is inspected by an inspector or an insurer. O. Reg. 220/01, s. 7 (4).

(5) Subsections (3) and (4) do not apply with respect to boilers, pressure vessels, fittings and piping for which a program for repair and self-inspection is in place that satisfies the director that the repair or alteration will be carried out in a safe manner. O. Reg. 220/01, s. 7 (5).

Reporting requirements

8. (1) The owner of a boiler, pressure vessel, fitting or piping, upon permanently removing it from operation or use, shall forthwith notify the director of the removal in the form published by the designated administrative authority. O. Reg. 220/01, s. 8 (1).

(2) Where an explosion or rupture of a boiler, pressure vessel, fitting or piping occurs, or where an accident arises out of its operation or use that causes injury or death to a person or property damage, the owner shall,

(a) forthwith notify the director, in person or by telephone, of the occurrence and provide full details; and

(b) within 48 hours after the explosion or rupture occurs, send the director a written report of the circumstances of the occurrence. O. Reg. 220/01, s. 8 (2).

(3) The director or any inspector under the director's instruction may investigate any matter reported under subsection (2), or of which he or she becomes aware, to determine its cause. O. Reg. 220/01, s. 8 (3).

(4) Where an explosion or rupture of a boiler, pressure vessel, fitting or piping occurs, no person shall, except for the purpose of saving a life or relieving human suffering, interfere with, disturb, destroy, carry away or alter any wreckage, article or thing at the scene of or connected with the occurrence until permission to do so in writing is given by an inspector. O. Reg. 220/01, s. 8 (4).

Inspections

9. (1) The director may require the inspection of a boiler, pressure vessel, fitting or piping in accordance with the code adoption document at any stage of its manufacture. O. Reg. 220/01, s. 9 (1).

(2) Every used boiler, pressure vessel, fitting or piping shall be inspected by an inspector before it is put into operation or use and the fee set by the designated administrative authority for an inspection carried out under this subsection or subsection (1) shall be paid by the owner of the thing inspected. O. Reg. 220/01, s. 9 (2).

(3) After an inspection is carried out under subsection (1) or (2), if the director is satisfied that the thing inspected may be operated or used safely, he or she shall issue a certificate of inspection in accordance with the code adoption document. O. Reg. 220/01, s. 9 (3).

(4) Where a required inspection of a boiler, pressure vessel or piping has not been carried out during its manufacture or its installation, the director, if satisfied that it may be operated or used safely, may issue a certificate of inspection on payment of the fee set by the designated administrative authority. O. Reg. 220/01, s. 9 (4).

(5) Although a certificate of inspection has been issued, the director may order a further inspection of a boiler, pressure vessel or piping at any time, or an inspector may make a further inspection at any time, and the owner shall pay the fee set by the designated administrative authority for the inspection. O. Reg. 220/01, s. 9 (5).

(6) The director may employ the services of an insurer or of any person qualified to engage in the business of inspection of boilers and pressure vessels in Ontario to make an inspection and to report on it within 14 days after its completion. O. Reg. 220/01, s. 9 (6).

(7) An inspector may require the owner or other person responsible for or in charge of a boiler, pressure vessel or plant to do all things necessary for a proper inspection, including,

(a) preparing it for inspection or a test in such manner as the inspector requires and to supply water for any test and to assist in making the test;

(b) cutting or drilling holes in the thing being inspected or using any other method to enable the inspector to determine its condition and the thickness of the metal;

(c) putting it under pressure or otherwise putting it into operation so that the inspector may test the safety valves or any part of the installation under operating conditions;

(d) stopping the application of heat to a boiler or reducing the pressure upon a boiler, pressure vessel, piping or fitting to a designated pressure if the inspector has reason to believe that it is in an unsafe condition; and

(e) doing any other thing the inspector considers necessary to ensure a proper inspection. O. Reg. 220/01, s. 9 (7).

Periodic inspections

10. (1) Every owner of a boiler, pressure vessel, fitting or piping that is in operation or use shall have it inspected,

(a) where it is not insured, by an inspector at such intervals as are set out in the code adoption document, and shall pay the fee set by the designated administrative authority for the inspection; or

(b) where it is insured, by the insurer at such intervals as are set out in the code adoption document, unless the director requires the boiler or pressure vessel to be inspected by an inspector in which case the fee set by the designated administrative authority shall be paid by the owner. O. Reg. 220/01, s. 10 (1).

(2) Following an inspection, the inspector or insurer, as the case may be, shall,

(a) issue a report on the inspection to the director;

(b) if satisfied that the boiler or pressure vessel can continue to be operated or used safely, issue a record of inspection. O. Reg. 220/01, s. 10 (2).

(3) An insurer that carries out an inspection shall file with the director, within 21 days after the inspection, proof satisfactory to the director that the inspection has been carried out in accordance with this Regulation. O. Reg. 220/01, s. 10 (3).

(4) An insurer shall forthwith notify the director in writing of the cancellation, suspension or expiry of insurance on a boiler or pressure vessel, together with the reasons therefor. O. Reg. 220/01, s. 10 (4).

(5) Where the director receives a notice under subsection (4) and the boiler or pressure vessel cannot be operated safely, the director shall seal the boiler or pressure vessel or suspend or revoke the certificate of inspection for it. O. Reg. 220/01, s. 10 (5).

(6) Where the director receives a record of inspection under clause (2) (b), the director shall issue a certificate of inspection for the boiler or pressure vessel to which the inspection relates. O. Reg. 220/01, s. 10 (6).

(7) The owner of every certified boiler or pressure vessel shall keep the certificate of inspection in good condition and post it in a conspicuous place near the boiler or pressure vessel or, if that is impracticable, at such place as an inspector may direct. O. Reg. 220/01, s. 10 (7).

(8) When a boiler, pressure vessel or piping is being inspected, the owner or other person responsible for it or in immediate charge of it shall point out to the inspector or insurer any defect of which he or she has knowledge or that he or she believes to exist in it and, if at any other time, the owner or other person learns of any defect that might render it unsafe to operate or use, he or she shall forthwith notify the director of the circumstances, in person, by telephone or by any other means appropriate to ensure a record of the communication. O. Reg. 220/01, s. 10 (8).

(9) Where an inspector has inspected a boiler, pressure vessel or piping and is satisfied that it can no longer be operated or used safely, the inspector shall condemn it and notify the director that it has been condemned and shall seal it with a seal or label indicating that it is condemned and shall take possession of the certificate of inspection relating to it. O. Reg. 220/01, s. 10 (9).

Unsafe condition

11. Where, in the opinion of an inspector or an insurer, a boiler, pressure vessel, fitting or piping is in an unsafe operating condition or it is being operated in a dangerous manner, the inspector or insurer shall notify the director forthwith and an inspector shall take such steps as are necessary to remove the danger, including affixing a seal, disconnecting the power or other means, and the director may cancel the certificate of registration or certificate of inspection, as the case may be. O. Reg. 220/01, s. 11.

Qualifications for inspectors

12. (1) No person shall carry out an inspection of a boiler or pressure vessel under section 11 unless the person holds a valid certificate of competency. O. Reg. 220/01, s. 12 (1).

(2) No person shall carry out an inspection under section 10 who has any direct commercial interest in boilers or pressure vessels. O. Reg. 220/01, s. 12 (2).

(3) An application for a certificate of competency to carry out inspections on behalf of an insurer shall be in the form published by the designated administrative authority and be accompanied by the fee set by the designated administrative authority. O. Reg. 220/01, s. 12 (3).

(4) The director may issue a certificate of competency to any person to carry out inspections under this section if he or she pays the fee set by the designated administrative authority and,

(a) is in the regular employ of an insurer or a person who is engaged in the business of inspecting boilers and pressure vessels;

(b) is the holder of an Ontario secondary school diploma;

(c) has a minimum of 5 credit points accumulated in education and experience, with a minimum of 1 credit point in each area respectively, as set out in the Table;

(d) passes the examinations or tests required by the code adoption document; or

(e) in the opinion of the director, possesses qualifications or experience equivalent to those mentioned in clauses (b), (c) and (d). O. Reg. 220/01, s. 12 (4).

(5) A certificate of competency may, in accordance with its terms, be restricted in scope and subject to conditions. O. Reg. 220/01, s. 12 (5).

(6) A certificate of competency to carry out inspections on behalf of an insurer shall be in the form published by the designated administrative authority. O. Reg. 220/01, s. 12 (6).

(7) A certificate of competency continues in force for the period set out in it or until the holder ceases to be employed as set out in clause (4) (a), whichever occurs first. O. Reg. 220/01, s. 12 (7).

(8) Where a person ceases to be employed as set out in clause (4) (a) but is re-employed in accordance with that clause within five years, the director may issue a certificate of competency to carry out inspections to the person under this section. O. Reg. 220/01, s. 12 (8).

(9) The holder of a certificate of competency who applies to the director for a renewal of the certificate before the expiry of the certificate shall be issued a renewal if the holder continues to meet the requirements set out in subsection (4). O. Reg. 220/01, s. 12 (9).

(10) On every inspection of a boiler or pressure vessel, a holder of a certificate of competency,

(a) shall satisfy himself or herself that the boiler or pressure vessel is being operated or used and maintained in accordance with this Regulation and that the pressure relief devices are properly set and protected against unauthorized adjustment; and

(b) shall review the maximum allowable working pressure of the boiler or pressure vessel and make, or require the owner or operator of the boiler or pressure vessel to make, any reduction in it for safe operation or use having regard to the design, manufacture, age, condition and use of the boiler or pressure vessel. O. Reg. 220/01, s. 12 (10).

Welding and brazing requirements

13. (1) The welding and brazing procedures used in the manufacture, installation, alteration or repair of a boiler, pressure vessel, fitting or piping are established as set out in the code adoption document and shall be submitted to the director. O. Reg. 220/01, s. 13 (1).

(2) Every welder, welding operator, brazer or brazing operator shall pass such tests as the director may require and pay the fee set by the designated administrative authority for taking the tests. O. Reg. 220/01, s. 13 (2).

(3) No person shall act as a welder, welding operator, brazer or brazing operator unless the person is certified in accordance with the code adoption document. O. Reg. 220/01, s. 13 (3).

(4) The director shall issue a certificate to every welder, welding operator, brazer or brazing operator who passes the required tests and pays the fee set by the designated administrative authority. O. Reg. 220/01, s. 13 (4).

(5) A welder, welding operator, brazer or brazing operator may be required at any time to pass such further tests as may be required in the code adoption document and, on being so required, his or her certificate shall be provisionally suspended, but a new certificate shall be issued to the welder, welding operator, brazer or brazing operator who passes the required tests and pays the fee set by the designated administrative authority. O. Reg. 220/01, s. 13 (5).

(6) Every welder, welding operator, brazer or brazing operator shall have his or her certificate readily available and produce it when requested by an inspector. O. Reg. 220/01, s. 13 (6).

(7) When a welder, welding operator, brazer or brazing operator is first employed or changes employer, he or she shall not begin welding or brazing for his or her employer or for the new employer until he or she has passed such further tests as the director may require. O. Reg. 220/01, s. 13 (7).

(8) A welder, welding operator, brazer or brazing operator shall only weld or braze for the employer named on his or her certificate and only with respect to the type of welding or brazing set out in the certificate. O. Reg. 220/01, s. 13 (8).

(9) An employer shall only permit a welder, welding operator, brazer or brazing operator to weld or braze if,

- (a) the employer is the employer named in the person’s certificate; and
- (b) the person welds or brazes in accordance with his or her certificate. O. Reg. 220/01, s. 13 (9).

(10) No welder, welding operator, brazer or brazing operator shall weld,

- (a) except in accordance with a procedure set out in the code adoption document;
- (b) unless he or she is the holder of a subsisting certificate;
- (c) in the employ of an employer other than the employer named in his or her certificate; and
- (d) anything where he or she is not qualified in the appropriate class or position of welding as set out in the code adoption document. O. Reg. 220/01, s. 13 (10).

(11) In this section,

“employer” includes a trade association of persons or companies whose business includes welding or brazing. O. Reg. 220/01, s. 13 (11).

Identification and marking

14. (1) No person shall permanently cover or obliterate any identification markings on a boiler or pressure vessel. O. Reg. 220/01, s. 14 (1).

(2) Where it is impracticable to comply with subsection (1), the marking shall be reproduced on a metal plate permanently attached to the boiler or pressure vessel, so as to be readily accessible. O. Reg. 220/01, s. 14 (2).

TABLE

EDUCATION
(1 credit minimum)

Category	Credit Points
(a) Technical Training in Boilers & Pressure Vessels (1 pt. maximum) Includes the following: Having completed and received a passing grade in a training course approved by the Director in at least one (1) of the following (or related) subjects: quality assurance, engineering, fabrication methods, nondestructive examination or inspection. <div style="text-align: center;">or</div> Completion of a course on knowledge, understanding and general structure of the National Board Inspection Code or other codes or related standards, as applicable. <div style="text-align: center;">or</div> Completion of a course on procedures and techniques of auditing, and/or basic inspection methods	1
(b) Technical Curriculum Includes the following:	

Second (2nd) Class Certificate:	
Power Engineer's	2
Stationary Engineer's	
Marine Engineer's (Canada)	
	or
Accredited Trade Certificate in such skills as a Boilermaker, Mechanic, Steam Fitter, Machinist, Millwright, or Welder	
	or
Level II or III CGSB Nondestructive Examination Certification	
(c) College	
Diploma or Certificate in Science, Mathematics, Quality Assurance or Engineering	3
First (1st) Class Certificate:	
Power Engineer's,	
Stationary Engineer's	
Marine Engineer's (Canada)	
(d) University	
Bachelor's Degree in Science, Mathematics or Engineering	4

EDUCATION
(1 credit minimum)

Credit as shown for each full year's technical experience associated with boilers and pressure vessel in the categories listed below.

	Category	Credit Points
(a)	Engineering, design or design registration of boilers or pressure vessels in Canada	1
(b)	Manufacturing of boilers or pressure vessels, including fabrication methods or processes in either shop or field	1
(c)	Responsible charge in the operation of boilers totalling 50,000 lbs. of steam per hour total capacity	1
(d)	Perform repair, alteration or maintenance of boiler or pressure vessels	1
(e)	Quality control systems related to boiler or pressure vessel manufacturing, repair or alteration in either shop or field	1
(f)	Inspection of boilers or pressure vessels either in-service or during construction including either shop or field	1
(g)	NDE examination of boilers and pressure vessels	1

O. Reg. 220/01, Table.