# The Boiler and Pressure Vessel Regulations, 2017

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Chapter B-5.1 Reg 2 (effective January 1, 2018).

### NOTE:

This consolidation is not official. Amendments have been incorporated for convenience of reference and the original statutes and regulations should be consulted for all purposes of interpretation and application of the law. In order to preserve the integrity of the original statutes and regulations, errors that may have appeared are reproduced in this consolidation.

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### CHAPTER B-5.1 REG 2

The Boiler and Pressure Vessel Act, 1999

### PART 1 General Requirements

# DIVISION 1 **Definitions**

### Title

- 1 These regulations may be cited as *The Boiler and Pressure Vessel Regulations*, 2017.
  - **2**(1) In these regulations:
    - "acceptance inspection" means an inspection pursuant to the applicable code or standard conducted by an inspector after the installation, alteration or repair of a boiler, pressure vessel or refrigeration plant and before it is put, or put back, into service;
    - "Act" means The Boiler and Pressure Vessel Act, 1999;
    - "adopted code or standard" means a code or standard adopted pursuant to section 4:
    - "anhydrous ammonia" means the product with the chemical formula NH<sub>3</sub>, in either a liquid or gaseous state, that is normally stored, transported or otherwise contained in a pressure vessel under pressure and used as a fertilizer;
    - "ANSI" means the American National Standards Institute, Inc.;
    - "applicable code or standard" means, in relation to a boiler, pressure vessel, fitting, plant, procedure or activity, an adopted code or standard that applies to that boiler, pressure vessel, fitting, plant, procedure or activity;
    - "applicable fee" means the fee payable with respect to the activity as established by bylaw pursuant *The Technical Safety Authority of Saskatchewan Act* and published by the Technical Safety Authority of Saskatchewan;
    - "approved" means approved by the chief inspector, unless otherwise stated;
    - "ASME" means the American Society of Mechanical Engineers;
    - "ASME Code" means the portions of the American Society of Mechanical Engineers code adopted pursuant to subsection 4(3);
    - "authorized contractor" means a holder of a contractor's licence who is designated pursuant to section 145 as having authority to administer pressure welders' qualification tests to employees of the holder;
    - "AWS" means the American Welding Society;

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- "boiler and pressure vessel authority" means the department or agency of a province or territory of Canada that is authorized by the laws of the province or territory to regulate boilers and pressure vessels within its boundaries;
- **"boiler plant"** means a plant that constitutes an installation of two or more high pressure boilers, low pressure boilers or a combination of high pressure and low pressure boilers;
- "CGA" means the Compressed Gas Association responsible for publishing the standard requirements for the storage and handling of Anhydrous Ammonia;
- "chief engineer" means the person who is responsible for the operation of a boiler or boiler plant;
- "competent operator" means a person possessing the appropriate qualifications, knowledge, skills and experience to supervise or perform work safely and in accordance with the Act and these Regulations;
- "contractor" means a person who engages in the business of constructing, installing, altering or repairing boilers, pressure vessels, fittings, pressure piping systems or refrigeration plants;
- "contractor's licence" means a licence issued pursuant to section 26;
- "CSA" means the Canadian Standards Association;
- "CSA B51-14" means the Canadian Standards Association standard adopted pursuant to clause 4(1)(a);
- "engineered pressure enclosure" means a fitting used for containing a leak or reinforcing existing pressure equipment for a limited time until a proper repair or alteration is carried out;
- "environmentally-sensitive area" means an area with natural features in which special protection is needed for its landscape, wildlife and historical value and includes lakes, streams and wetlands.
- "evacuation-sensitive facility" includes a hospital, school, residential development, senior citizen home, and daycare;
- "graduate engineer" means an engineer who has graduated with a degree in mechanical engineering or a university degree that is recognized by the chief inspector as equivalent to a degree in mechanical engineering;

### "high pressure boiler plant" means:

- (a) a plant comprising two or more high pressure boilers; or
- (b) a plant comprising both high pressure boilers and low pressure boilers that is deemed to be a high pressure boiler plant pursuant to clause 44(2)(a);

### "inspection certificate" means a valid inspection certificate:

- (a) issued by an inspector pursuant to section 21 of the Act; or
- (b) issued by a licensed pressure equipment inspector pursuant to section 64, in accordance with the terms and conditions of an approved quality management system;

"inspection company" means a company that carries out a quality management system of inspection on behalf of an owner or insurer of a company that utilizes or insures boilers and pressure equipment;

"installation inspection" means an inspection by the owner, the insurer or a third party on behalf of the owner or insurer of the design or contractual requirements after the installation, alteration or repair of a boiler, pressure vessel or refrigeration plant and before it is put, or put back, into service;

"instrumentation alternative" means a technology designed to ensure the safe operation of pressure equipment without the level of supervision by a power engineer or other competent operator that would otherwise be required;

"liquified petroleum gas" means a material, in either a liquid or gaseous state, that is composed predominantly of propane, propylene, butanes (normal butane or isobutane) or butylenes or a mixture of any of those hydrocarbons;

### "low pressure boiler plant" means:

- (a) a plant comprising two or more low pressure boilers; or
- (b) a plant comprising both high pressure boilers and low pressure boilers that is deemed to be a low pressure boiler plant pursuant to clause 44(3)(a);

"NBBI" means the National Board of Boiler and Pressure Vessel Inspectors;

"NBBI Code" means the code adopted pursuant to subsection 4(2);

"NFPA" means the National Fire Protection Association, Inc.;

"oilfield once-through boiler" means a coil type, drumless boiler designed for once-through water usage that is used only for underground heating in oilfields;

"organic fluid" means a hydrocarbon based high molecular mass fluid with a liquid-vapour phase change that occurs at a lower temperature than the water-steam phase change;

"organic rankine cycle waste heat recovery system" means a thermodynamic cycle in a waste heat recovery plant using an organic fluid such that the organic fluid is heated by waste heat with no secondary fuel input and comprises pressure vessels, pressure piping and any other pressure equipment;

"pressure equipment" means a boiler, pressure vessel, pressure piping and fittings;

"pressure equipment inspector" means a person who conducts an inspection on behalf of an insurer or in connection with a quality management system;

"pressure equipment inspector's licence" means a licence issued pursuant to section 99;

### "private dwelling" includes:

- (a) any land on which a private dwelling is located or any outbuilding or premises that is located on the same land as a private dwelling, but does not include any part of that land, outbuilding or premises that:
  - (i) is not being used as a private dwelling or is not enclosed within the private dwelling; and
  - (ii) is being used to carry out a commercial operation;

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- (b) foster homes as defined in *The Child and Family Services Regulations*; and
- (c) alternative family care homes as defined in the Appendix to The Uniform Building and Accessibility Standards Regulations;

"process operator" means a person who is responsible for overseeing the production process in a plant facility, including monitoring equipment, making adjustments on different processes and improving the quality, efficiency and safety of the plant facility;

"professional engineer" means a professional engineer as defined in The Engineering and Geoscience Professions Act;

- "shift engineer" means a person who, under the supervision of the chief engineer, is in personal charge of a boiler or boiler plant.
- (2) A reference in these regulations to a table is a reference to the table as set out in the Appendix.
- (3) For the purposes of the Act and these regulations, "welding" includes brazing and plastic fusing.

8 Dec 2017 cB-5.1 Reg 2 s2.

### DIVISION 2 **Exemptions**

### **Exemptions from Act**

**3**(1) In this section:

### "cleanable or replaceable manufactured elements" includes:

- (a) filter cartridges;
- (b) other filter elements such as candle, bag, ceramic and membrane filters:
- (c) reverse osmosis (RO) membranes; and
- (d) treatment cartridges of various types, including ion exchange resin, activated carbon and zeolite cartridges;

"packed media" includes ion exchange resins, zeolites, activated carbon and filter media.

- (2) For the purposes of clause 3(1)(p) of the Act, the following are designated as classes of boilers, pressure vessels, plants, pressure piping systems or fittings to which the Act does not apply:
  - (a) pressure piping systems that:
    - (i) contain hot water at a pressure of 1 103 kilopascals or less or at a temperature of 121°C or less; and
    - (ii) form part of a low pressure boiler plant;
  - (b) pressure piping systems that are not connected to, or used in connection with, a boiler or pressure vessel;
  - (c) medical gas piping systems;

- (d) air piping with a diameter of 25.4 millimetres or less;
- (e) any of the following types of pressure vessels that are used in connection with a pipeline as defined in *The Pipelines Act*, 1998:
  - (i) odourizer tanks;
  - (ii) dust pots;
  - (iii) gas drips;
  - (iv) storage tanks for hydraulic valve operators;
  - (v) pig injectors;
  - (vi) pig receivers;
  - (vii) indirect fired heater coils;
  - (viii) methanol injectors;
- (f) potable water heaters with an internal diameter greater than 610 millimetres that:
  - (i) operate at a pressure not exceeding 1 103 kilopascals;
  - (ii) have a heat input not exceeding 58.67 kilowatts;
  - (iii) produce a water temperature not exceeding 99°C; and
  - (iv) have a water capacity not exceeding 454 litres;
- (g) pressure vessels used as the external enclosure of pressurized gas-filled electrical high voltage switch gear or control gear;
- (h) low pressure boilers and associated heating system pressure vessels installed in a private dwelling designed to accommodate not more than 3 families:
- (i) equipment lubricating and control oil systems that are designed and operated at temperatures less than 100°C with non-expansible fluids under pressure;
- (j) vessels containing packed media or cleanable or replaceable manufactured elements that:
  - (i) form part of a water treatment system; and
  - (ii) are designed and operated at temperatures less than 100°C with non-expansible fluids under pressure;
- (k) air receivers installed in a private dwelling designed to accommodate not more than 3 families:
- (l) pressure vessels used in geo-thermal heating systems in a private dwelling designed to accommodate not more than 3 families;
- (m) pressure vessels used in reverse osmosis water treatment systems in a private dwelling designed to accommodate not more than 3 families;
- (n) hydropneumatic tanks with a maximum diameter of 610 millimetres, a total volume of 450 litres or less, and a maximum temperature of 65°C or less.

- (3) Pursuant to clause 3(1)(p) of the Act, subsection 14(1) of the Act does not apply to the sale of a boiler, pressure vessel or pressure piping system that is previously used if the boiler, pressure vessel or pressure piping system is removed from Saskatchewan.
- (4) Subject to subsections 3(2) and 3(3) of the Act, the following pressure vessels must meet all the requirements for pressure vessels in the Act and these regulations:
  - (a) autoclaves with a volume greater than 0.0425 cubic metres, an internal diameter greater than 152 millimetres, or any one short or long span dimension greater than 152 millimetres;
  - (b) air cooled heat exchanger headers with any one short or long span dimension greater than 152 millimetres;
  - (c) plate heat exchangers with any one short or long span dimension greater than 152 millimetres;
  - (d) any other type of pressure vessel that is non-circular with any unsupported dimension greater than 152 millimetres that is used to evaluate its pressure rating.

8 Dec 2017 cB-5.1 Reg 2 s3.

# DIVISION 3 Physical Standards

### Adoption of codes and standards

- 4(1) Each of the following codes and standards, as amended from time to time, is adopted for the purposes of the Act as a standard governing the design, construction, shop inspection, installation, repair or alteration of boilers, pressure vessels or pressure piping systems:
  - (a) CSA B51-14, Boiler, Pressure Vessel, and Pressure Piping Code, 18th edition;
  - (b) CSA B52-13, Mechanical Refrigeration Code, 11th edition;
  - (c) CGAG-2.1-2014, Requirements for the Storage and Handling of Anhydrous Ammonia (an American National Standard), 6th edition;
  - (d) NFPA 58, *Liquified Petroleum Gas Code*, 2017 edition, published by the National Fire Protection Association, Inc.;
  - (e) CSA B149.2-15, Propane Handling and Storage Code, 11th edition.
- (2) NB23-2017, National Board Inspection Code, 2017 edition published by the NBBI and approved by the American National Standards Institute, as amended from time to time, is adopted for the purposes of the Act to the extent that it deal with matters not covered by the codes and standards adopted by clauses (1)(a) and (b).
- (3) The following provisions of the ASME Boiler and Pressure Vessel Code, 2017 edition, as amended from time to time, are adopted for the purposes of the Act to the extent that they deal with matters not covered by the codes and standards adopted by clauses (1)(a) and (b):
  - (a) Section I, Rules for Construction of Power Boilers;

- (b) Section II, Materials:
  - (i) Part A Ferrous Material Specifications;
  - (ii) Part B Nonferrous Material Specifications;
  - (iii) Part C Specifications for Welding Rods, Electrodes, and Filler Metals;
  - (iv) Part D Properties (Customary);
  - (v) Part D Properties (Metric);
- (c) Section IV, Rules for Construction of Heating Boilers;
- (d) Section V, Nondestructive Examination;
- (e) Section VI, Recommended Rules for the Care and Operation of Heating Boilers:
- (f) Section VII, Recommended Guidelines for the Care of Power Boilers;
- (g) the following divisions in Section VIII, Rules for Construction of Pressure Vessels:
  - (i) Division 1;
  - (ii) Division 2 Alternative Rules;
  - (iii) Division 3 Alternative Rules for Construction of High Pressure Vessels;
- (h) Section IX, Qualification Standard for Welding, Brazing and Fusing Procedures, Welders, Brazers and Welding, Brazing and Fusing Operators Welding, Brazing and Fusing Qualifications;
- (i) Section X, Fiber-reinforced Plastic Pressure Vessels.
- (4) The following standards, as amended from time to time, are adopted for the purposes of the Act to the extent that they deal with matters not covered by the codes and standards adopted by clauses (1)(a) and (b):
  - (a) ASME B31.1-2016, Power Piping;
  - (b) ASME B31.3-2016, Process Piping;
  - (c) ASME B31.5-2016, Refrigeration Piping and Heat Transfer Components.
- (5) If there is a conflict or inconsistency between an adopted code or standard and a provision of these regulations, the provision of these regulations prevails.

8 Dec 2017 cB-5.1 Reg 2 s4.

### Compliance with adopted codes and standards

- **5**(1) No person who designs, constructs, carries out a shop inspection, installs, repairs or alters a boiler, pressure vessel or pressure piping system governed by the Act shall fail to carry out that activity in accordance with any applicable adopted code or standard.
- (2) If a person designs, constructs, carries out a shop inspection, installs, repairs or alters a boiler, pressure vessel or pressure piping system in accordance with a more recent version of a code or standard than the version adopted pursuant to section 4, the person is deemed to have complied with the adopted code or standard.

### Requirements for boilers

- **6**(1) Subject to subsections (2) and (3) and except as otherwise provided by these regulations, boilers are to be designed, constructed, installed and fitted with protective devices in accordance with the applicable codes specified in clause 4(1) (a) and in subsections 4(2) and (3).
- (2) All coil and fin-tube boilers installed in a forced circulation hot water heating system must be equipped with a flow switch that will automatically cut off the fuel supply to the burner if the flow rate is inadequate to protect the boiler from overheating.
- (3) All hot water boilers other than coil and fin-tube boilers must be equipped with protection against dry firing as follows:
  - (a) if heat input is less than or equal to 422 megajoules per hour, the boiler must be equipped with either a flow switch or a low water fuel cut-off device; and
  - (b) if heat input is greater than 422 megajoules per hour, the boiler must be equipped with a low water fuel cut-off device.

8 Dec 2017 cB-5.1 Reg 2 s6.

### Requirements for pressure vessels

7 Except as otherwise provided by these regulations, pressure vessels are to be designed, constructed, installed and fitted with protective devices in accordance with the applicable codes specified in clauses 4(1)(a) and (b) and subsections 4(2) and (3).

8 Dec 2017 cB-5.1 Reg 2 s7.

### Additional requirements - pressure vessels for compressed gases

- 8(1) Safety relief valves for a pressure vessel that is to be used in the handling and storage of a compressed gas must be set to discharge at a pressure that does not exceed the design pressure specified in subsection 9(2) or 10(2) or section 11, as the case may require.
- (2) If a pressure vessel to be used in the handling and storage of a compressed gas is located outside and is exposed to the weather, any safety relief valve discharge outlet, with or without vent pipes, that is installed on the pressure vessel must be protected with a loose-fitting rain cap that cannot freeze in place.
- (3) Before a pressure vessel to be used in the handling and storage of a compressed gas is placed in service, the pressure vessel must be:
  - (a) painted; and
  - (b) labelled, in block letters in a contrasting colour, with the word "caution" and the name of the compressed gas contained in the vessel.

8 Dec 2017 cB-5.1 Reg 2 s8.

### Additional requirements - pressure vessels for liquified petroleum gas

- **9**(1) Pressure vessels that are to be used in the handling and storage of liquefied petroleum gas must be designed for a pressure of not less than 1 725 kilopascals.
- (2) Openings and fittings in pressure vessels that are to be used in the handling and storage of liquified petroleum gas must be installed and operated in accordance with the applicable code specified in clause 4(1)(e).

(3) The minimum required rate of discharge for safety relief valves for pressure vessels that are to be used in the handling and storage of liquified petroleum gas must be installed and operated in accordance with the applicable code specified in clause 4(1)(d).

8 Dec 2017 cB-5.1 Reg 2 s9.

### Additional requirements - pressure vessels for anhydrous ammonia

- **10**(1) Subject to subsection (2) and except as otherwise provided in these regulations, pressure vessels and related pressure piping that are to be used in the handling and storage of anhydrous ammonia must be designed, constructed, installed and operated in accordance with the applicable codes pursuant to clauses 4(1)(a) and (c) and subsections 4(2) to (4).
- (2) Pressure vessels used for the storage of anhydrous ammonia must be designed for a pressure of not less than 1 725 kilopascals.

8 Dec 2017 cB-5.1 Reg 2 s10.

### Design pressure - pressure vessels for other compressed gases

11 Pressure vessels that are to be used in the handling and storage of compressed gases other than anhydrous ammonia and liquified petroleum gas must be designed for a pressure of not less than the vapour pressure at 46°C of the gas to be contained.

8 Dec 2017 cB-5.1 Reg 2 s11.

### Requirements for pressure piping

- 12(1) Subject to subsection (2) and except as otherwise provided by these regulations, pressure piping must be designed, constructed, installed, fitted with protective devices, inspected and tested in accordance with:
  - (a) the applicable codes pursuant to clauses 4(1)(a) and (b); and
  - (b) the following standards, to the extent that they deal with matters not covered by the codes and standards adopted by clause (a):
    - (i) the applicable code specified in clause 4(4)(a);
    - (ii) the applicable code specified in clause 4(4)(b);
    - (iii) the applicable code specified in clause 4(4)(c).
- (2) Any pressure piping that falls outside the scope of the standards mentioned in clause (1)(b) must be designed, constructed, installed, fitted with protective devices, inspected and tested in accordance with the applicable code specified in clause 4(4)(b).

8 Dec 2017 cB-5.1 Reg 2 s12.

# DIVISION 4 Boiler and Pressure Vessel Safety Board

### General qualification for membership

13 To be eligible for appointment as a member of the board, an individual must demonstrate to the minister that he or she has experience in the design, construction, inspection, operation or repair of boilers, pressure vessels or pressure piping systems.

8 Dec 2017 cB-5.1 Reg 2 s13.

### Members to represent certain groups

- **14**(1) The board must include the following members:
  - (a) 1 member who is a licensed professional engineer with experience relating to high pressure boilers and who represents owners and users of high pressure boilers;
  - (b) 1 member who is a licensed professional engineer with experience relating to pressure vessels and who represents owners and users of pressure vessels;
  - (c) 2 members who are holders of first class power engineers' licences and who are actively engaged in the operation of boilers and pressure vessels;
  - (d) 1 member who represents boiler and pressure vessel manufacturers;
  - (e) 1 member who is a member of a trade union that represents employees engaged in trades involved in the construction, alteration, repair or operation of boilers, pressure vessels and pressure piping systems;
  - (f) 1 member who represents owners and users of low pressure boilers;
  - (g) 1 member who is a licensed professional engineer and represents the College of Engineering of the University of Saskatchewan or the Faculty of Engineering of The University of Regina;
  - (h) 1 member who is a faculty member of the Saskatchewan Polytechnic or the Saskatchewan Indian Institute of Technologies and who is actively engaged in teaching power engineering.
- (2) If a successor to a member described in any of the clauses in subsection (1) is to be appointed, the person to be appointed must meet the requirements of the clause that describes the member being replaced.

8 Dec 2017 cB-5.1 Reg 2 s14.

# DIVISION 5 Duplicate Certificates and Review of Fees

### Duplicate certificates, licences

15 The chief inspector may issue a duplicate certificate or a duplicate licence to an applicant who furnishes evidence satisfactory to the chief inspector that the applicant is a holder in good standing of the certificate or licence in question and has a legitimate reason for requesting a duplicate, together with the applicable fee.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}15.$ 

### Fee for review by chief inspector

- **16**(1) An applicant for a review pursuant to subsection 25(1) of the Act shall pay the applicable fee.
- (2) If, after completing a review pursuant to subsection 25(1) of the Act, the chief inspector revokes or varies the notice, order, decision, requirement or direction of an inspector that is the subject of the review, the application fee will be refunded on the written request of the applicant.

8 Dec 2017 cB-5.1 Reg 2 s16.

### PART 2 Registration of Design

### Application for registration of designs

- 17(1) In this section and section 18, "application for registration" means an application for the registration of a design required pursuant to section 11 of the Act.
- (2) No person shall commence construction, installation, alteration or repair of a boiler, pressure vessel, fitting or pressure piping unless:
  - (a) an application for registration has been made to the chief inspector; and
  - (b) registration has been received.
- (3) With respect to an application for registration of the design of a boiler, a pressure vessel or an alteration to or repair of a boiler or pressure vessel, the drawings, calculations, specifications and other information respecting the design must include:
  - (a) the design pressure and temperature;
  - (b) details of the arrangement and dimensions of all component parts;
  - (c) the ASME specification numbers of all materials for which an ASME specification number is required by any applicable code or standard;
  - (d) details of the proposed construction and welded joint configuration;
  - (e) the section and paragraph number of the applicable code specified in subsection 4(3) pursuant to which it is or is to be constructed;
  - (f) a report of any physical tests conducted for the purpose of establishing the maximum allowable working pressure; and
  - (g) any other information that the chief inspector may require.
- (4) With respect to an application for registration of the design of a pressure piping system:
  - (a) the drawings, specifications and other information submitted as part of the application for registration must be of sufficient detail to allow the chief inspector to fully evaluate the design; and
  - (b) the drawings submitted for registration must be stamped and signed by a licensed professional engineer.
- (5) The drawings, specifications and other information respecting the design of a fitting submitted for an application for registration must include:
  - (a) the statutory declaration of the manufacturer, in the manner and form specified by the chief inspector, respecting compliance with:
    - (i) standards specified in the declaration that are applicable to the fitting; and
    - (ii) the quality control program required by CSA B51-14; and
  - (b) supporting documents that set out all information required by CSA B51-14.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}17.$ 

### B-5.1 REG 2 BOILER AND PRESSURE VESSEL, 2017

### Fees - registration of designs

- **18**(1) An application for the registration of the design of a boiler, pressure vessel, fitting or pressure piping system is subject to the applicable fee.
- (2) No refund will be given of any fee paid pursuant to this section with respect to an application for registration if the application is denied.

8 Dec 2017 cB-5.1 Reg 2 s18.

### Alternative to design registration requirement - boilers, pressure vessels

- **19**(1) Subject to subsections (3) and (4), the design of a boiler or pressure vessel is not required to be registered pursuant to subsection 11(1) of the Act if:
  - (a) the boiler or pressure vessel is:
    - (i) constructed in strict compliance with the administrative and technical rules of the appropriate section of the applicable code specified in subsection 4(3);
    - (ii) stamped in accordance with the ASME code with the applicable certification mark; and
    - (iii) registered with NBBI; and
  - (b) the NBBI registration number is:
    - (i) recorded on the data report required by the ASME code; and
    - (ii) stamped on the name plate of the boiler or pressure vessel.
- (2) Subject to subsections (3) to (5), the design of a boiler or pressure vessel constructed in Canada is not required to be registered pursuant to subsection 11(1) of the Act if:
  - (a) the boiler or pressure vessel:
    - (i) is constructed in a province or territory of Canada other than Saskatchewan in strict compliance with the administrative and technical rules of the appropriate section of CSA B51-14;
    - (ii) is assigned a Canadian registration number by the boiler and pressure vessel authority of the province or territory in which it is constructed; and
    - (iii) is inspected during construction by an inspector employed by the boiler and pressure vessel authority of the province or territory in which it is constructed; and
  - (b) the registration number of the province or territory in which the boiler or pressure vessel is constructed is:
    - (i) recorded on the data report required by the CSA B51-14; and
    - (ii) stamped on the name plate of the boiler or pressure vessel.
- (3) Before a boiler or pressure vessel mentioned in subsection (1) or (2) is installed, the owner must ensure that the data report required by the applicable code or standard has been submitted to the chief inspector for registration.

- (4) The following boilers or pressure vessels are required to be registered pursuant to subsection 11(1) of the Act:
  - (a) boilers or pressure vessels manufactured before January 1, 1997;
  - (b) pressure vessels manufactured in accordance with Section VIII Division 2 or Division 3 of the ASME code;
  - (c) pressure vessels designed with limited cycles of service in accordance with Section VIII Division 1 of the ASME code;
  - (d) pressure vessels fabricated from cold-stretched, austenitic stainless steel;
  - (e) pressure vessels with volumes exceeding 37 370 litres and installed in a horizontal position on two saddle supports;
  - (f) pressure vessels designed for pressures exceeding 3 000 psig and manufactured in accordance with Section VIII Division 1 of the ASME code;
  - (g) pressure vessels that have any pressure part designed pursuant to clause U-2(g) in Section VIII Division 1 of the ASME code;
  - (h) boilers rated for over 10 000 kW and manufactured in accordance with Section I of the ASME code;
  - (i) boiler blowoff vessels less than 457 mm (18 in) in diameter; and
  - (j) part of a boiler or pressure vessel that is identified on a partial data report.
- (5) Any boiler or pressure vessel mentioned in subclause (2)(a)(iii) does not require an inspection during construction by an inspector employed by the boiler and pressure vessel authority if that boiler or pressure vessel complies with one or more of the limitations described in clauses 4.8.2(a) to (g) of CSA B51-14.
- (6) Registration of a data report is subject to the applicable fee.

8 Dec 2017 cB-5.1 Reg 2 s19.

### Exemptions from registration requirement - fittings

- **20**(1) If a fitting is registered by CSA, the design of the fitting is not required to be registered pursuant to subsection 11(1) of the Act, except for any engineered pressure enclosures.
- (2) Subject to subsection (3), category A, B, C and G fittings, as set out in Table 1 of CSA B51-14, are not required to be registered pursuant to subsection 11(1) of the Act.
- (3) The following fittings or devices must be registered pursuant to subsection 11(1) of the Act:
  - (a) nonstandard or unlisted pipe fittings, flanges or valves that do not comply with the specifications and standards listed in:
    - (i) Table 126.1 of ASME B31.1-2016;
    - (ii) Table 326.1 of ASME B31.3-2016; or
    - (iii) Table 526.1 of ASME B31.5-2016; or
  - (b) pressure relief devices that do not comply with the requirements of the ASME Code or NBBI Code.

### Exemptions from registration requirement - pressure piping systems

- 21 The design of a pressure piping system with an aggregate internal capacity of 0.5 cubic metres or less is not required to be registered pursuant to subsection 11(1) of the Act unless:
  - (a) the design makes up a portion of a larger overall pressure piping system design in which a need exists to register the complete system with multiple applications; or
  - (b) the piping will be an addition to an existing facility that connects to or alters a pressure relief system.

8 Dec 2017 cB-5.1 Reg 2 s21.

# ${\bf PART~3} \\ {\bf Quality~Control~-~Fabrication~and~Installation}$

# DIVISION 1 Quality Control Requirements

### Quality control program required

- **22**(1) Subject to subsection (2), a person who intends to construct, install, alter or repair a boiler, pressure vessel, fitting or pressure piping system:
  - (a) must develop and implement a written quality control program manual that is appropriate for the scope of the work to be carried out and meets the requirements of any applicable code or standard;
  - (b) must not commence the construction, installation, alteration or repair unless the quality control program manual is registered pursuant to section 23; and
  - (c) must carry out the construction, installation, alteration or repair in accordance with the registered quality control program manual.
- (2) Subsection (1) does not apply to a person who holds a valid contractor's licence issued pursuant to *The Gas Licensing Act* with respect to the installation of low pressure boilers and associated pressure equipment with thermal inputs that are within the limits of the authority conferred by the licence issued to that person pursuant to *The Gas Licensing Act*.

8 Dec 2017 cB-5.1 Reg 2 s22.

### Registration of quality control program manual

**23**(1) A person who intends to construct, install, alter or repair a boiler, pressure vessel, fitting or pressure piping system must apply for registration of the quality control program manual required by section 22 to the chief inspector, together with the applicable fee.

- (2) Before making a decision with respect to an application pursuant to this section, the chief inspector:
  - (a) may require the applicant to provide any further information that the chief inspector considers necessary; and
  - (b) may require an audit to be conducted, at the applicant's expense, of the proposed quality control program, including an inspection of any boiler, pressure vessel or plant to which the application relates.
- (3) With respect to an audit conducted pursuant to clause (2)(b), the applicant shall pay the applicable fee.
- (4) The chief inspector may register a quality control program manual and issue a certificate of registration to the applicant if the chief inspector is satisfied, after review of the manual by an inspector and after consideration of the results of any audit conducted and any further information that the chief inspector considers relevant, that the quality control program set out in the manual, if implemented:
  - (a) will provide control over the activities to which the manual applies in accordance with the Act and these regulations; and
  - (b) will not present a serious risk to public safety.
- (5) Subject to subsection (6), a certificate of registration issued pursuant to subsection (4) is valid for a period of up to 3 years from the date of issue.
- (6) The chief inspector may:
  - (a) impose any terms and conditions on a certificate of registration that the chief inspector considers advisable in the interest of public safety at the time the certificate of registration is issued or at any time during the period of validity of the certificate of registration; and
  - (b) amend, vary, suspend, revoke or replace any terms and conditions imposed pursuant to clause (a).
- (7) A person who holds a certificate of registration issued pursuant to subsection (4) and who intends to change a procedure described in the quality control program manual shall:
  - (a) submit a copy of the proposed amendment to the manual to an inspector for review, together with the applicable fee;
  - (b) not implement the amended procedure until an inspector has approved the amendment; and
  - (c) file a copy of the amendment with the chief inspector as soon as possible after an inspector has approved it.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{c} \, \mathrm{B}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}23.$ 

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### Audit

- **24**(1) An inspector may conduct an audit for the purpose of determining whether or not the holder of a certificate of registration with respect to a quality control program manual is carrying out the activities to which the manual applies in accordance with the manual.
- (2) With respect to an audit conducted pursuant to subsection (1), the holder of a certificate of authorization shall pay the applicable fee.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB} \text{-} 5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s} 24.$ 

### Reissuance of certificate of registration

- **25** The chief inspector may reissue a certificate of registration for a quality control program manual to an applicant in the name of a successor to the original holder of the certificate if the applicant:
  - (a) provides evidence satisfactory to the chief inspector that the applicant is the successor to the original holder of the certificate; and
  - (b) pays the applicable fee.

8 Dec 2017 cB-5.1 Reg 2 s25.

### Contractor's licence

- **26**(1) No person shall engage in the business of constructing, installing, altering or repairing boilers, pressure vessels, fittings, pressure piping systems or refrigeration plants unless the person holds a valid contractor's licence.
- (2) An application for a contractor's licence must:
  - (a) set out the scope of the work that the applicant intends to engage in; and
  - (b) be accompanied by the applicable fee.
- (3) The chief inspector may issue a contractor's licence to an applicant if the chief inspector is satisfied that the applicant holds valid certificates of registration for a quality control program and welding procedures that cover the proposed scope of work to which the licence applies.
- (4) A licence issued pursuant to subsection (3) is valid for a period of up to 3 years from the date of issue.
- (5) The chief inspector may issue a contractor's licence to an applicant if the chief inspector is satisfied that the applicant holds a valid gas contractor's licence issued pursuant to *The Gas Licensing Act*.
- (6) A licence issued pursuant to subsection (5) is limited to the installation of low pressure boilers and associated equipment with thermal inputs that are within the limits of the authority conferred by the licence issued pursuant to *The Gas Licensing Act*.
- (7) A licence issued pursuant to subsection (5) expires at the same time as the gas contractor's licence expires.

8 Dec 2017 cB-5.1 Reg 2 s26.

### Inspections - construction

- **27**(1) A contractor who constructs a boiler, pressure vessel, fitting, pressure piping system or refrigeration plant must ensure that a shop inspection of the boiler, pressure vessel, fitting, pressure piping system or refrigeration plant is conducted in accordance with the applicable code specified in clause 4(1)(a) or (b), as the case may be.
- (2) With respect to the construction of a boiler, pressure vessel, fitting, pressure piping system, refrigeration plant or other equipment, a contractor shall pay the applicable fee.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB} \text{-} 5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s} 27.$ 

### DIVISION 2 Welding Requirements

### Welding procedures required

- **28**(1) A person who intends to construct, alter or repair any boiler, pressure vessel, fitting or pressure piping system by welding shall:
  - (a) subject to subsection (2), develop and qualify by testing, procedures in accordance with the applicable code specified in clause 4(3)(h);
  - (b) not commence the construction, alteration or repair unless the procedures have been registered pursuant to section 29; and
  - (c) carry out the construction, alteration or repair in accordance with the registered procedures.
- (2) A person mentioned in subsection (1) may carry out the activities mentioned in subsection (1) in accordance with any of the ANSI/AWS standard welding procedures set out in the NBBI code, but must submit those procedures for registration pursuant to section 29.

 $8 \, \mathrm{Dec} \ 2017 \, \mathrm{c} \, \mathrm{B}\text{-}5.1 \, \mathrm{Reg} \ 2 \, \mathrm{s}28.$ 

### Registration of welding procedures

- **29**(1) A person who intends to construct, install, alter or repair a boiler, pressure vessel, fitting or pressure piping system by welding must apply for registration of the welding procedures required by section 28 to the chief inspector, together with the applicable fee.
- (2) The chief inspector may register a welding procedure and assign a registration number to the procedure if, after a review by an inspector, the chief inspector is satisfied that the procedure meets the requirements of the applicable code specified in clause 4(3)(h).
- (3) The chief inspector may accept for registration without review any of the ANSI/AWS standard welding procedures set out in the NBBI code.

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- (4) A person mentioned in subsection (1) must:
  - (a) ensure that copies of a registered welding procedures are kept at any worksite at which the procedure is to be used; and
  - (b) ensure that any welding on a boiler, pressure vessel, fitting or pressure piping system is carried out in accordance with that procedure.
- (5) If a person mentioned in subsection (1) wishes to make a change in a registered welding procedure, the person must submit the proposed amendment to the chief inspector for registration in accordance with this section, together with the applicable fee.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB} \text{-} 5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s} 29.$ 

### Compliance with section 16 of Act

- **30** For the purposes of section 16 of the Act, a person is qualified to perform a welding process in the construction, alteration or repair of a boiler, pressure vessel or pressure piping system if:
  - (a) the person holds a valid pressure welder's licence issued pursuant to Division 3 of Part 11; and
  - (b) the welding process is within the scope of the welding processes authorized by the licence mentioned in clause (a).

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}30.$ 

### DIVISION 3 Installation Requirements

### Permit to install, alter or repair

- **31** A contractor shall:
  - (a) report the installation, alteration or repair of a boiler or pressure vessel to the chief inspector in the manner and form specified by the chief inspector; and
  - (b) pay the applicable fee.

8 Dec 2017 cB-5.1 Reg 2 s31.

### Inspection fees - installation, etc.

**32** A contractor or owner shall pay the applicable fee to cover the cost of the acceptance inspection on the installation, alteration or repair work.

8 Dec 2017 cB-5.1 Reg 2 s32.

# PART 4 Equipment Licensing

### Exemptions - owner's licence to operate

- **33** For the purposes of clause 5(1)(c) of the Act, the owner of any of the following classes of pressure vessels is not required to hold a licence to operate the pressure vessel in question:
  - (a) an air receiver with a volume of 800 litres or less;
  - (b) a propane vessel used in a vehicle as a fuel tank;
  - (c) a propane storage vessel with a capacity of 30 000 litres or less that forms part of a distribution facility that:
    - (i) is used to dispense propane to the public; and
    - (ii) is licensed pursuant to *The Gas Licensing Act*;
  - (d) a propane storage vessel with a capacity of 7 500 litres or less that is used for heating purposes in a building or at a construction site or oil field;
  - (e) a propane storage vessel with a capacity of 30 000 litres or less that is used for heating purposes on a farm.

8 Dec 2017 cB-5.1 Reg 2 s33.

### Owner's licence to operate - boiler, etc., in service

- **34**(1) An owner of a boiler or pressure vessel that is in service in Saskatchewan shall apply for a licence authorizing the operation of the boiler or pressure vessel not later than June 30 in each year.
- (2) An owner shall provide payment of the applicable fee with the application pursuant to subsection (1) for the type and capacity of the boiler or pressure vessel.
- (3) A licence issued pursuant to this section expires on June 30 of the year following the year of issuance.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}34.$ 

### Acceptance and installation inspections - new, repaired or altered pressure vessels or boilers

- **35**(1) Subject to subsections (2) and (3), no person shall put into operation any boiler or pressure vessel until the boiler or pressure vessel has passed an acceptance inspection conducted by an inspector.
- (2) Subject to subsection (3), a quality management system company shall not put into operation any boiler or pressure vessel until the boiler or pressure vessel has passed an installation inspection conducted by a licensed pressure equipment inspector of the appropriate class under the requirements of the quality management system program.
- (3) Following an installation inspection in subsection (2), an acceptance inspection is required to be conducted by an inspector but may be performed after the boiler, pressure vessel or plant has been placed in operation.

8 Dec 2017 cB-5.1 Reg 2 s35.

### BOILER AND PRESSURE VESSEL, 2017

### Owner's licence to operate - new or out-of-service boiler, etc.

- **36**(1) An owner who intends to put into service a new boiler or pressure vessel or a boiler or pressure vessel that is installed but not currently in service must apply to the chief inspector in accordance with this section for a licence authorizing the operation of the boiler or pressure vessel.
- (2) In the case of a new boiler or pressure vessel, an application pursuant to subsection (1) must be made after the initial installation is completed and before the boiler or pressure vessel is put into service.
- (3) In the case of a boiler or pressure vessel that is installed but not currently in service, an application pursuant to subsection (1) must be made before the boiler or pressure vessel is put into service.
- (4) An application pursuant to subsection (1) must be accompanied by the applicable fee.
- (5) The chief inspector may issue to the applicant a licence to operate the boiler or pressure vessel as owner if, after conducting an inspection, an inspector or licensed pressure equipment inspector issues an inspection certificate with respect to the boiler or pressure vessel.
- (6) A licence issued pursuant to subsection (5) expires on June 30 following the date of issuance.

8 Dec 2017 cB-5.1 Reg 2 s36.

### Owner's licence to operate plant

- **37** For the purposes of clause 5(1)(c) of the Act, an owner is deemed to hold a valid licence to operate a plant if the owner who holds a valid licence to operate:
  - (a) each boiler constituting a boiler plant; or
  - (b) each pressure vessel constituting a refrigeration plant.

8 Dec 2017 cB-5.1 Reg 2 s37.

# PART 5 Operational Requirements

# DIVISION 1 **Definitions for Part**

### **Definitions for Part**

38 In this Part:

"automatic control" means, with respect to a boiler or plant, that the starting, stopping, restarting or modulation of the operation of the boiler or plant is carried out by one or more devices without the intervention of a person;

"continuous supervision" means, with respect to a boiler or plant, that a person holding a licence of the appropriate class to operate the boiler or plant is personally present at all times on the premises:

- (a) within range of the audible or visual alarm for the boiler or plant; and
- (b) in the primary control area where the person can provide manual control of the operation of the boiler or plant;

### "general supervision":

- (a) with respect to a boiler or a plant other than a refrigeration plant, means that a person holding a licence of the appropriate class to operate the boiler or plant:
  - (i) manually starts the boiler or plant whenever the boiler or plant is not under automatic control and restarting is required;
  - (ii) does not leave the premises without ensuring that the boiler or plant is operating under automatic control; and
  - (iii) visits the boiler or plant at least once during each 24-hour period to ensure that all controls, alarms and safety devices required by these regulations are operational; and
- (b) with respect to a refrigeration plant, means that a person holding a licence of the appropriate class to operate the refrigeration plant:
  - (i) manually starts the refrigeration plant whenever the refrigeration plant is not under automatic control and restarting is required; and
  - (ii) does not leave the premises without ensuring that the refrigeration plant is operating under automatic control;

"guarded plant licence" means a licence issued pursuant to subsection 35(2) of the Act:

"licence of the appropriate class" means a licence that is appropriate in relation to:

- (a) the type and capacity of the boiler or plant in question; and
- (b) the capacity in which the holder of the licence is to act;

"manual control" means, with respect to a boiler or plant, that the starting, stopping, restarting or modulation of the operation of the boiler or plant is carried out by the intervention of a person;

"periodic supervision" means, with respect to a boiler or plant, that a person holding a licence of the appropriate class to operate the boiler or plant:

- (a) manually starts the boiler or plant whenever the boiler or plant is not operating under automatic control and restarting is required;
- (b) is personally present on the premises within range of the audible or visual alarm for that boiler or plant whenever the boiler or plant is being operated and any building containing or serviced by the boiler or plant is occupied;
- (c) does not leave the premises while the boiler or plant is operating without ensuring that:
  - (i) the boiler or plant is operating safely under automatic control;
  - (ii) all of the devices required pursuant to section 46 for the boiler or plant are operational; and
  - (iii) any building containing or serviced by the operating boiler or plant is unoccupied; and

# (d) while the boiler or plant is operating, visits the boiler or plant at least once during each 24-hour period in which the building containing or serviced by the boiler or plant is unoccupied to ensure that the boiler or plant is operating

safely under automatic control.

8 Dec 2017 cB-5.1 Reg 2 s38.

### DIVISION 2

### Capacity of Boilers, Boiler Plants, Organic Rankine Cycle Waste Heat Recovery Systems and Refrigeration Plant

Capacity of boilers and organic rankine cycle waste heat recovery systems

- **39**(1) For the purposes of the Act and these regulations, the capacity of a boiler or an organic rankine cycle waste heat recovery system is determined in accordance with this section.
- (2) Subject to subsection (4), the capacity of any boiler or organic rankine cycle waste heat recovery system other than an electric boiler is calculated in accordance with the following formula:

$$C = A \times 10.8$$

where:

C is the capacity in kilowatts; and

A is the area of the heating surface in square metres as determined in accordance with section 40.

- (3) Subject to subsection (4), the capacity in kilowatts of an electric boiler is the capacity in kilowatts of the heating element.
- (4) If the area of the heating surface of a boiler mentioned in subsection (2) or the capacity in kilowatts of the heating element of an electric boiler is not known, the capacity of the boiler is calculated in accordance with the following formula:

$$C = \frac{I}{5400}$$

where:

C is the capacity in kilowatts; and

I is the hourly joule input of the boiler in kilojoules.

8 Dec 2017 cB-5.1 Reg 2 s39.

### Area of boiler or organic rankine cycle waste heat recovery system heating surfaces

- **40**(1) The area of the heating surface of a boiler or organic rankine cycle waste heat recovery system is to be determined in accordance with this section.
- (2) If a portion of the heating surface of a boiler is part of a circulating system that, on one side, is in contact with water or steam being heated and, on the other side, is in contact with gas or refractory being cooled, the area of that portion of the heating surface is to be measured on the side receiving heat.

(3) If a portion of the heating surface of a boiler is outside of the furnace, the area of the heating surface outside of the furnace, including the area of any extended surface, is to be measured in accordance with the following formula:

$$A = C \times L$$

where:

A is the area in square metres;

C is the circumference of the boiler tubes in metres; and

L is the length of the boiler tubes in metres.

(4) Subject to subsections (5) to (7), the area of waterwall heating surface within the furnace, including any extended surface on the furnace, is to be measured as the projected tube area in accordance with the following formula:

$$A_{pt} = D \times L$$

where:

A<sub>pt</sub> is the projected tube area in square metres;

D is the diameter in metres; and

L is the length in metres.

- (5) For the purposes of subsection (4), only the areas of tubes, fire boxes, shells and tubesheets and the projected areas of headers are to be considered.
- (6) In the case of a vertical firetube steam boiler, only the portion of the tube surface up to the middle of the gauge glass is to be considered for the purposes of subsection (4).
- (7) In the case of a low pressure hot water boiler of the coil or fin-tube type, the projected area of the water tube is deemed to be the area of the water-wetted surface, excluding any extended finned surface.
- (8) In the case of an organic rankine cycle waste heat recovery system, the heating surface is the water wetted surface, excluding any extended finned surface, of any part of the organic rankine cycle waste heat recovery system that is in contact with the organic fluid under pressure on one side and waste heat from a machine performing work or from an industrial process measured on the side receiving heat.

8 Dec 2017 cB-5.1 Reg 2 s40.

### Capacity of boiler plants - two or more high pressure boilers

- **41**(1) Subject to subsection (2), the capacity of a boiler plant comprising two or more high pressure boilers is the capacity of the largest of those boilers.
- (2) The capacity of a boiler plant comprising two or more high pressure boilers that are connected to a common distribution system and fitted so as to be capable of being operated is the sum of the capacities, expressed in kilowatts, of all boilers connected to the distribution system.

8 Dec 2017 cB-5.1 Reg 2 s41.

### Capacity of boiler plants - two or more low pressure boilers

**42** The capacity of a boiler plant comprising two or more low pressure boilers, whether or not they are connected to a common distribution system, is the capacity, expressed in kilowatts, of the largest boiler installed.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB} \text{-} 5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s} 42.$ 

### Capacity of organic rankine cycle waste heat recovery system plants - two or more

**43**(1) Subject to subsection (2), the capacity of an organic rankine cycle waste heat recovery system plant comprising two or more organic rankine cycle waste heat recovery systems is the capacity of the largest of those organic rankine cycle waste heat recovery systems.

(2) The capacity of an organic rankine cycle waste heat recovery system plant comprising two or more organic rankine cycle waste heat recovery systems that are connected to a common distribution system and fitted so as to be capable of being operated is the sum of the capacities, expressed in kilowatts, of all organic rankine cycle waste heat recovery systems connected to the distribution system.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}43.$ 

### Plants comprising high and low pressure boilers

44(1) In this section, "mixed boiler plant" means a boiler plant comprising both high pressure boilers and low pressure boilers.

(2) Subject to subsection (3):

- (a) a mixed boiler plant is deemed to be a high pressure boiler plant; and
- (b) the capacity of a mixed boiler plant is the capacity of the boiler plant determined in accordance with section 41.

(3) If the capacity of a mixed boiler plant determined pursuant to clause (2)(b) would result in a lower class of operator's licence being required pursuant to section 122 than if the capacity of the mixed plant were the capacity of the largest low pressure boiler installed:

- (a) the mixed boiler plant is deemed to be a low pressure boiler plant; and
- (b) the capacity of the mixed boiler plant is the capacity of the largest low pressure boiler installed.

8 Dec 2017 cB-5.1 Reg 2 s44.

### Capacity of refrigeration plants

**45**(1) Subject to subsection (2), the capacity of a refrigeration plant is the manufacturer's standard rating in tonnes of refrigeration.

(2) If the manufacturer's standard rating in tonnes of refrigeration is not known, the capacity of a refrigeration plant is calculated in accordance with the following formula:

$$C = \frac{D_p}{135}$$

where:

C is the capacity of the refrigeration plant in tonnes; and

 $D_p$  is the piston displacement in litres per minute.

8 Dec 2017 cB-5.1 Reg 2 s45.

# DIVISION 3 Guarded Plants

### Additional requirements for guarded plants

- 46 Each boiler or organic rankine cycle waste heat recovery system in a guarded plant must meet the technical requirements established by the chief inspector respecting the safe operation of the type of plant and facility, including the following:
  - (a) instrumentation alternative requirements;
  - (b) periodic monitoring;
  - (c) inspection;
  - (d) maintenance;
  - (e) incident response capacity;
  - (f) record keeping;
  - (g) restriction of access;
  - (h) any other applicable duties of the owner of the guarded plant.

8 Dec 2017 cB-5.1 Reg 2 s46.

### Guarded plant licence

- 47(1) Subject to subsections (6) to (9), a guarded plant licence authorizes the holder of the licence to operate, in the capacity of owner, the boiler, organic rankine cycle waste heat recovery system, or plant specified in the licence with a degree of supervision that complies with:
  - (a) section 48, 50 or 51;
  - (b) subsection 35(3) of the Act; and
  - (c) any terms and conditions set out in the licence.
- (2) An applicant for a guarded plant licence must:
  - (a) identify the location of the proposed guarded plant and the purpose for which the proposed guarded plant is to be used;
  - (b) identify each boiler or organic rankine cycle waste heat recovery system to which the application relates;
  - (c) set out the type and capacity of each boiler or organic rankine cycle waste heat recovery system to which the application relates;
  - (d) satisfy the chief inspector that each boiler or organic rankine cycle waste heat recovery system to which the application relates meets the requirements mentioned in section 46; and
  - (e) pay the applicable fee with the application.
- (3) Before making a decision with respect to an application pursuant to subsection (2), the chief inspector may require the applicant to provide any further information that the chief inspector considers necessary.

- (4) The chief inspector may issue a guarded plant licence to an applicant if the chief inspector is satisfied that each boiler or organic rankine cycle waste heat recovery system to which the application applies:
  - (a) meets the requirements mentioned in section 46; and
  - (b) if operated as a guarded plant in accordance with these regulations, will not present a serious risk to public safety.
- (5) A guarded plant licence is valid for a period of up to 3 years from the date of issue.
- (6) Notwithstanding that a guarded plant licence has not expired and has not been cancelled or suspended pursuant to section 9 of the Act, if the technical requirements established by the chief inspector or by any term or condition of the guarded plant licence become inoperative or, for any reason, cease to be capable of performing the function for which they were intended, the guarded status of the boiler, organic rankine cycle waste heat recovery system, or plant to which the guarded plant licence applies is automatically suspended when the device or system ceases to operate or perform its function.
- (7) During a period in which guarded status is suspended pursuant to subsection (6), the owner shall ensure that the boiler or plant is not operated except under conditions of continuous supervision.
- (8) During a period in which guarded status is suspended pursuant to subsection (6), the owner shall ensure that an organic rankine cycle waste heat recovery system is not operated except under conditions of periodic supervision.
- (9) A period of suspension pursuant to subsection (6) or (7) continues until the device or system has been repaired and an inspector has been notified of the repair.

8 Dec 2017 cB-5.1 Reg 2 s47.

# DIVISION 4 Operational Requirements

### Supervision - high pressure boilers, plants

- **48**(1) Subject to subsection (2), this section applies to:
  - (a) high pressure boilers with a capacity greater than 150 kilowatts; and
  - (b) high pressure boiler plants with a capacity greater than 150 kilowatts.
- (2) This section does not apply to steam traction engines.
- (3) No owner of a boiler or boiler plant to which this section applies shall cause or permit the boiler or boiler plant to be operated unless a chief engineer who holds a valid licence of the appropriate class:
  - (a) has been designated by the owner to fulfil the responsibilities of the chief engineer set out in section 52; and
  - (b) is not responsible for the operation of any other boiler or boiler plant unless authorized by the chief inspector.

- (4) Subject to subsection (5), no owner of a boiler or boiler plant to which this section applies shall cause or permit the boiler or boiler plant to be operated unless continuous supervision is provided by the chief engineer or by a person who holds a valid licence of the appropriate class authorizing the holder to operate the boiler or boiler plant in the capacity of shift engineer.
- (5) If the owner of a boiler or boiler plant to which this section applies holds a valid guarded plant licence for it, the chief inspector may authorize:
  - (a) the licence holder providing continuous supervision to the boiler or boiler plant to be absent from the immediate control area of the boiler or boiler plant while it is in operation, but not from the premises on which the boiler or boiler plant is situated;
  - (b) the operation of the boiler or boiler plant under periodic supervision if the boiler or boiler plant has a capacity of 1 000 kilowatts or less; or
  - (c) the operation of the boiler or boiler plant under general supervision if the boiler or boiler plant has a capacity of 500 kilowatts or less.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}48.$ 

### Operation of antique boilers

- **49** If a lap seam rivetted boiler is 20 years old or older:
  - (a) no person shall operate the boiler unless the factor of safety is increased by 0.1 for each year or part of a year by which the age of the boiler exceeds 20 years; and
  - (b) if the boiler is relocated, no person shall operate the boiler at a pressure greater than 103 kilopascals.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}49.$ 

### Supervision - low pressure boilers, plants

- **50**(1) This section applies to:
  - (a) low pressure boilers with a capacity greater than 500 kilowatts; and
  - (b) low pressure boiler plants with a capacity greater than 500 kilowatts.
- (2) No owner of a low pressure boiler or low pressure boiler plant with a capacity greater than 1 000 kilowatts shall cause or permit the boiler or boiler plant to be operated unless a chief engineer who holds a valid fifth class or higher power engineer's licence:
  - (a) has been designated by the owner to fulfil the responsibilities of the chief engineer set out in section 52; and
  - (b) is responsible for the operation of not more than two low pressure boilers or low pressure boiler plants unless authorized by the chief inspector.
- (3) Subject to subsection (4), no owner of a boiler or boiler plant to which this section applies shall cause or permit the boiler or boiler plant to be operated unless continuous supervision is provided by the chief engineer or by a person who holds a valid fireman boiler operator licence or a valid power engineer's licence of any class.

# (4) If the owner of a boiler or boiler plant to which this section applies holds a valid guarded plant licence for it, the chief inspector may:

- (a) authorize the licence holder providing continuous supervision to the boiler or boiler plant to be absent from the immediate control area of the boiler or boiler plant while it is in operation, but not from the premises on which the boiler or boiler plant is situated;
- (b) authorize the operation of the boiler or boiler plant under periodic supervision if the boiler or boiler plant has a capacity greater than 2 000 kilowatts; or
- (c) authorize the operation of the boiler or boiler plant under general supervision if the boiler or boiler plant has a capacity of 2 000 kilowatts or less.
- (5) A low pressure boiler or low pressure boiler plant with a capacity of 1 000 kilowatts or less may be operated under general supervision without a guarded plant licence if the boiler or, in the case of a boiler plant, each boiler, is fitted with a low-water fuel cut-off device that:
  - (a) is designed to shut off the fuel supply if the water level in the boiler falls below a safe level;
  - (b) is installed so that it cannot be rendered inoperative by the manipulation of a manual control or regulating apparatus;
  - (c) can be tested under operational conditions; and
  - (d) is tested daily to ensure that it is operating effectively.

8 Dec 2017 cB-5.1 Reg 2 s50.

### Supervision - organic rankine cycle waste heat recovery systems

- **51**(1) This section applies to organic rankine cycle waste heat recovery systems with a capacity greater than 500 kilowatts.
- (2) No owner of an organic rankine cycle waste heat recovery system to which this section applies shall cause or permit the organic rankine cycle waste heat recovery system to be operated unless a competent operator:
  - (a) has been designated by the owner to fulfil the responsibilities of the competent operator set out in subsection 52(2); and
  - (b) is not responsible for the operation of any other organic rankine cycle waste heat recovery system unless authorized to do so by the chief inspector.
- (3) Subject to subsection (4), no owner of an organic rankine cycle waste heat recovery system to which this section applies shall cause or permit the organic rankine cycle waste heat recovery system to be operated unless continuous supervision is provided by a competent operator fully trained on all of the organic rankine cycle waste heat recovery system's operating procedures.

- (4) If the owner of an organic rankine cycle waste heat recovery system to which this section applies holds a valid guarded plant licence for it, the chief inspector may authorize:
  - (a) the operation of the organic rankine cycle waste heat recovery system under periodic supervision if the organic rankine cycle waste heat recovery system has a capacity greater than 2 000 kilowatts; or
  - (b) the operation of the organic rankine cycle waste heat recovery system under general supervision if the organic rankine cycle waste heat recovery system has a capacity of 2 000 kilowatts or less.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}51.$ 

### Responsibilities of the chief engineer, competent operator or power engineer in charge

- **52**(1) For a boiler or boiler plant, the chief engineer must:
  - (a) oversee, instruct and monitor persons who operate or assist in the operation of the boiler or boiler plant to ensure those persons carry out their activities or fulfil their responsibilities safely and in accordance with this Act, the regulations and the terms and conditions of any licence, certificate or permit required by this Act or the regulations;
  - (b) ensure that the log book is updated and maintained in accordance with section 55;
  - (c) ensure that the boiler or boiler plant is supervised in accordance with the recommendations set out in the applicable code specified in clause 4(3)(e) or (f);
  - (d) ensure that an accurate record is kept of the boiler or boiler plant's checks as set out in the applicable code specified in clause 4(3)(e) or (f);
  - (e) while a boiler is in operation, ensure that checks are conducted:
    - (i) at least every 2 hours for boilers or boiler plants that are required to be operated under continuous supervision;
    - (ii) at least once during each 24-hour period for boilers or boiler plants that are required to be operated under general supervision; or
    - (iii) at the beginning, end, and one additional time in a 24-hour period while a building is occupied and at least once during each 24-hour period while a building is unoccupied for boilers or boiler plants that are required to be operated under periodic supervision;
  - (f) notify the owner of the boiler or boiler plant and the chief inspector of any unsafe condition, accident or fire involving the pressure equipment of the plant; and
  - (g) meet any additional requirements established by the chief inspector respecting the safe operation of the boiler or boiler plant.
- (2) For an organic rankine cycle waste heat recovery system, the competent operator must:
  - (a) ensure that the log book is updated and maintained in accordance with section 55:
  - (b) ensure that the organic rankine cycle waste heat recovery system is supervised in accordance with established operating procedures;

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- (c) ensure that an accurate record is kept of the organic rankine cycle waste heat recovery system's checks as set out in the operating procedures;
- (d) while an organic rankine cycle waste heat recovery system is in operation, ensure that checks are conducted:
  - (i) at least every 2 hours for organic rankine cycle waste heat recovery systems that are required to be operated under continuous supervision;
  - (ii) at least once during each 24-hour period for organic rankine cycle waste heat recovery systems that are required to be operated under general supervision; or
  - (iii) at the beginning, end, and one additional time in a 24-hour period while a building is occupied and at least once during each 24-hour period while a building is unoccupied for organic rankine cycle waste heat recovery systems that are required to be operated under periodic supervision;
- (e) notify the owner of the organic rankine cycle waste heat recovery system and the chief inspector of any unsafe condition, accident or fire involving the pressure equipment of the organic rankine cycle waste heat recovery system; and
- (f) meet any additional requirements established by the chief inspector respecting the safe operation of the organic rankine cycle waste heat recovery system.
- (3) For low pressure boiler or boiler plants not greater than 1 000 kilowatts, the owner must:
  - (a) assign the number of power engineers in charge that are necessary to meet the operating requirements of section 50; and
  - (b) supervise and direct the power engineers in charge to meet the requirements of subsection (4).
- (4) For low pressure boiler or boiler plants not greater than 1 000 kilowatts, the power engineer in charge must:
  - (a) ensure that the log book is updated and maintained in accordance with section 55;
  - (b) ensure that the boiler or boiler plant is supervised in accordance with the recommendations set out in the applicable code specified in clause 4(3)(e);
  - (c) ensure that an accurate record is kept of the boiler or boiler plant's checks as set out in the applicable code specified in clause 4(3)(e);
  - (d) while a boiler is in operation, ensure that checks are conducted:
    - (i) at least every 2 hours for boilers or boiler plants that are required to be operated under continuous supervision;
    - (ii) at least once during each 24-hour period for boilers or boiler plants that are required to be operated under general supervision; or
    - (iii) at the beginning, end, and one additional time in a 24-hour period while a building is occupied and at least once during each 24-hour period while a building is unoccupied for boilers or boiler plants that are required to be operated under periodic supervision;

- (e) notify the owner of the boiler or boiler plant and the chief inspector of any unsafe condition, accident or fire involving the pressure equipment of the boiler or boiler plant; and
- (f) meet any additional requirements established by the chief inspector respecting the safe operation of the boiler or boiler plant.

8 Dec 2017 cB-5.1 Reg 2 s52.

### Supervision - refrigeration plants

- **53**(1) No owner of a refrigeration plant with a capacity greater than 45 tonnes but not greater than 100 tonnes shall cause or permit the refrigeration plant to be operated unless it is operated under general supervision by a holder of a refrigeration plant operator's licence, a holder of a refrigeration engineer's licence or the holder of a power engineer's licence of the appropriate class.
- (2) No owner of a refrigeration plant with a capacity greater than 100 tonnes shall cause or permit the refrigeration plant to be operated unless it is operated under general supervision by a holder of a refrigeration engineer's licence or the holder of a power engineer's licence of the appropriate class.

8 Dec 2017 cB-5.1 Reg 2 s53.

### Compliance with section 33 of Act

- **54**(1) Subject to subsection (2), compliance with section 48, 49, 50 or 51 is deemed to be compliance with subsection 33(1) of the Act.
- (2) For boilers, plants and organic rankine cycle waste heat recovery systems that are not described in section 48, 49, 50 or 51:
  - (a) no certificate of qualification is required pursuant to clause 33(1)(a) of the Act for persons responsible for the operation of the boiler, plant or organic rankine cycle waste heat recovery systems; and
  - (b) no certificate of qualification is prescribed pursuant to clause 33(1)(b) of the Act for persons who are to be in personal attendance on the boiler, boiler plant or organic rankine cycle waste heat recovery systems.
- (3) The provision of supervision with respect to a boiler, plant or organic rankine cycle waste heat recovery system in accordance with section 48, 49, 50 or 51 is deemed to be compliance with the requirement for personal attendance on the boiler, plant or organic rankine cycle waste heat recovery system at all times by a person possessing the prescribed certificate of qualification as set out in clause 33(1)(b) of the Act.

8 Dec 2017 cB-5.1 Reg 2 s54.

### Log books

- **55**(1) Subject to subsection (4), the owner of a boiler, boiler plant or organic rankine cycle waste heat recovery system for which supervision is required shall:
  - (a) provide a log book in which all information relevant to the operation of the boiler, boiler plant or organic rankine cycle waste heat recovery system is to be recorded;
  - (b) subject to subsection (3), ensure that all information relevant to the operation of the boiler, boiler plant or organic rankine cycle waste heat recovery system is recorded promptly in the log book by the appropriate person in accordance with this section;

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- (c) ensure that the log book is kept at the site of the boiler, boiler plant or organic rankine cycle waste heat recovery system; and
- (d) ensure that the log book and any information kept pursuant to subsection (3) is available for inspection in written or printed form for at least 5 years from the date of the last entry.
- (2) Without limiting the generality of subsection (1), log book entries must include:
  - (a) with respect to each shift:
    - (i) the time, date, number or designation of the shift;
    - (ii) the printed name and signature of the person providing the supervision of the boiler, boiler plant or organic rankine cycle waste heat recovery system required by these regulations; and
    - (iii) the boiler or organic rankine cycle waste heat recovery system conditions observed during the shift;
  - (b) a description of any abnormal boiler, boiler plant or organic rankine cycle waste heat recovery system condition observed and any corrective action required or taken;
  - (c) any order given that is contrary to, or in addition to, the normal operating procedures, the name of the person giving the order, the time at which the order was given and the reason for giving the order;
  - (d) a description of any preventive maintenance procedures carried out, including the testing and recording of all operation logging, control, alarm and safety systems, and the time at which the procedures were carried out; and
  - (e) a description of any repairs carried out on any part of the boiler, boiler plant or organic rankine cycle waste heat recovery system and the name of any person who carried out the repairs.
- (3) The information required pursuant to clauses (2)(d) and (e) does not have to be entered in the log book if it is recorded separately in records that are readily available to an inspector.
- (4) The chief inspector may authorize the owner of a boiler, boiler plant or organic rankine cycle waste heat recovery system to keep the information required by this section in an electronic form rather than in a log book if the information can be made available in printed form to an inspector at any time.

8 Dec 2017 cB-5.1 Reg 2 s 55.

# PART 6 Periodic Inspections

### **Application of Part**

- **56**(1) This Part applies to the periodic inspection, as required pursuant to subsection 17(1) of the Act, of a boiler, pressure vessel or plant that is in use or operation.
- (2) Compliance with section 57 or 58 with respect to each boiler in a boiler plant is deemed to be compliance with subsection 17(1) of the Act with respect to the boiler plant and any pressure piping systems used in association with the boiler plant.

(3) Compliance with section 60 with respect to each refrigeration vessel in a refrigeration plant is deemed to be compliance with subsection 17(1) of the Act with respect to the refrigeration plant and any refrigeration equipment used in association with the refrigeration plant.

8 Dec 2017 cB-5.1 Reg 2 s56.

#### High pressure boilers

- **57**(1) Subject to subsections (2) to (5), a high pressure boiler must be inspected:
  - (a) at intervals not exceeding 1 year; or
  - (b) if the owner holds a valid certificate of authorization for a quality management system that applies to the boiler, at the frequency specified in the quality management system.
- (2) Subject to subsections (3) to (5), a high pressure boiler that is being operated pursuant to a quality management system may be inspected at intervals not exceeding 3 years if:
  - (a) the boiler is operated under the supervision of a person who holds a licence to operate a high pressure boiler of that capacity;
  - (b) a program of continuous boiler water treatment is implemented and maintained for the purpose of controlling and limiting corrosion and deposits;
  - (c) a daily analysis of water samples is performed that adequately shows the conditions of the boiler water, the elements present in the boiler water and any characteristics of the boiler water that are capable of producing corrosion or other deterioration of the boiler or its parts; and
  - (d) the following information is recorded in the log book required by section 55:
    - (i) the results of the analyses conducted pursuant to clause (c);
    - (ii) with respect to each instance in which the boiler is out of service:
      - (A) the date on which the boiler goes out of service;
      - (B) the length of time for which the boiler is out of service;
      - (C) the reason for the boiler being out of service.
- (3) An owner may make application to the chief inspector to temporarily extend the inspection interval in clause (1)(a) if the owner demonstrates exceptional circumstances exist that would make strict compliance with the inspection interval impracticable.
- (4) Subject to subsection (5), the chief inspector may temporarily extend the inspection interval subject to any terms and conditions the chief inspector considers appropriate, if the chief inspector is satisfied that the temporary extension is not inconsistent with safe practice.
- (5) The combined period for a temporary extension or multiple temporary extensions must not exceed 1 year from the original inspection interval.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}57.$ 

#### Low pressure boilers

- **58**(1) Subject to subsections (2) to (5), a low pressure boiler must be inspected:
  - (a) at intervals, as determined by the chief inspector, having regard to the service conditions and risk factors associated with the boiler, not exceeding 2 years; or
  - (b) if the owner holds a valid certificate of authorization for a quality management system that applies to the boiler, at the frequency specified in the quality management system.
- (2) Subject to subsections (3) to (5), a low pressure hot water heating boiler of the coil or fin-tube type may be inspected at intervals not exceeding 4 years.
- (3) An owner may make application to the chief inspector to temporarily extend the interval in clause (1)(a) if the owner demonstrates exceptional circumstances exist that would make strict compliance with the inspection interval impracticable.
- (4) Subject to subsection (5), the chief inspector may temporarily extend the inspection interval subject to any terms and conditions the chief inspector considers appropriate, if the chief inspector is satisfied that the temporary extension is not inconsistent with safe practice.
- (5) The combined period for a temporary extension or multiple temporary extensions must not exceed 1 year from the original inspection interval.

8 Dec 2017 cB-5.1 Reg 2 s 58.

### Pressure vessels

- **59**(1) Subject to subsections (2) to (4), a pressure vessel must be inspected:
  - (a) at intervals, as determined by the chief inspector, having regard to the service conditions and risk factors associated with the pressure vessel, not exceeding 10 years; or
  - (b) if the owner holds a valid certificate of authorization for a quality management system that applies to the pressure vessel, at the frequency specified in the quality management system.
- (2) An owner may make application to the chief inspector to temporarily extend the interval in clause (1)(a) if the owner demonstrates exceptional circumstances exist that would make strict compliance with the inspection interval impracticable.
- (3) Subject to subsection (4), the chief inspector may temporarily extend the inspection interval subject to any terms and conditions the chief inspector considers appropriate, if the chief inspector is satisfied that the temporary extension is not inconsistent with safe practice.
- (4) The combined period for a temporary extension or multiple temporary extensions must not exceed 1 year from the original inspection interval.

8 Dec 2017 cB-5.1 Reg 2 s59.

#### Refrigeration vessels

- **60**(1) Subject to subsections (2) to (4), a refrigeration vessel must be inspected:
  - (a) at intervals, as determined by the chief inspector, having regard to the service conditions and risk factors associated with the refrigeration plant, not exceeding 2 years; or
  - (b) if the owner holds a valid certificate of authorization for a quality management system that applies to the refrigeration plant, at the frequency specified in the quality management system.
- (2) An owner may make application to the chief inspector to temporarily extend the interval in clause (1)(a) if the owner demonstrates exceptional circumstances exist that would make strict compliance with the inspection interval impracticable.
- (3) Subject to subsection (4), the chief inspector may temporarily extend the inspection interval subject to any terms and conditions the chief inspector considers appropriate, if the chief inspector is satisfied that the temporary extension is not inconsistent with safe practice.
- (4) The combined period for a temporary extension or multiple temporary extensions must not exceed 1 year from the original inspection interval.

8 Dec 2017 cB-5.1 Reg 2 s60.

#### Internal inspection required

61 Where construction and service conditions permit, a periodic inspection of a boiler, pressure vessel or refrigeration vessel must be an internal inspection.

8 Dec 2017 cB-5.1 Reg 2 s61.

## PART 7 Quality Management Systems of Inspections

## DIVISION 1 **Definitions for Part**

#### **Definitions for Part**

**62** In this Part:

"certificate of authorization" means a certificate of authorization issued pursuant to subsection 29(1) of the Act that authorizes the holder to implement a quality management system approved by the chief inspector;

"designated inspection company" means a licensed inspection company that is designated by an owner or insurer to carry out a quality management system of inspection on behalf of an owner or insurer, pursuant to section 83;

"designated pressure equipment inspector" means a licensed pressure equipment inspector who is designated by an owner or insurer for the purposes of a quality management system pursuant to section 65;

## "established criteria" means, in relation to any equipment or activity, any

requirement, applicable to the equipment or activity, set out in:

- (a) the Act;
- (b) these regulations;
- (c) any adopted code or standard;
- (d) any term or condition of a licence, permit or certificate issued pursuant to the Act or these regulations; and
- (e) any applicable code or standard as appropriate and selected by the owner;

"licensed pressure equipment inspector" means a person who holds a valid pressure equipment inspector's licence;

"manual" means the manual required by section 67 for a quality management system;

"propane storage vessel inspector" means a person authorized under a quality management system to perform inspections on propane storage vessels.

8 Dec 2017 cB-5.1 Reg 2 s62.

## ${\small \begin{array}{c} {\rm DIVISION~2}\\ {\bf Requirements~for~Quality~Management~Systems} \end{array}}$

### Inspections by licensed pressure equipment inspectors

- **63**(1) Subject to subsection (2), an owner, insurer or inspection company must ensure that any inspection required by a quality management system is conducted by a licensed pressure equipment inspector whose licence authorizes the holder to conduct that inspection.
- (2) Subject to subsection (1), an owner of propane storage vessels must ensure that any inspection of a propane storage vessel required by a quality management system is conducted by a propane storage vessel inspector or a licensed pressure equipment inspector.
- (3) A component of an inspection that involves a process requiring expertise other than the expertise of a licensed pressure equipment inspector, such as radiographic or ultrasonic examination, may be performed by a person with technical qualifications appropriate to the process if the results of the process are covered by the inspection report of the licensed pressure equipment inspector responsible for the inspection.

8 Dec 2017 cB-5.1 Reg 2 s63.

#### Inspection certificates

**64**(1) Subject to these regulations and any limitations set out in the certificate of authorization for a quality management system and the pressure equipment inspector's licence, a licensed pressure equipment inspector who conducts an inspection pursuant to an approved quality management system may issue an inspection certificate stating that, in the opinion of the licensed pressure equipment inspector based on that inspection, the equipment inspected meets the requirements of the Act, these regulations and the quality management system.

(2) Subject to these regulations and any limitations set out in the certificate of authorization for a quality management system, the propane storage vessel inspector who conducts an inspection pursuant to an approved quality management system on a propane storage vessel may issue an inspection certificate stating that, in the opinion of the propane storage vessel inspector based on that inspection, the propane storage vessel inspected meets the requirements of the Act, these regulations and the quality management system.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{c} \, \mathrm{B}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}64.$ 

#### Designated pressure equipment inspector or propane storage vessel inspector

- **65** An owner or insurer must:
  - (a) designate at least 1:
    - (i) licensed pressure equipment inspector who holds a licence of the appropriate class for the purposes of conducting inspections pursuant to a quality management system; and
    - (ii) in the case of propane storage vessels, a propane storage vessel inspector for the purposes of conducting inspections pursuant to a quality management system;
  - (b) while a quality management system is in operation, ensure that there is at least one pressure equipment inspector designated pursuant to clause (a) at all times; and
  - (c) notify the chief inspector immediately if the designation of a pressure equipment inspector or propane storage vessel inspector is terminated or a new designation is made.

8 Dec 2017 cB-5.1 Reg 2 s65.

## Reports to chief inspector

- **66**(1) An owner or insurer must provide the chief inspector with reports, certified by a designated pressure equipment inspector or propane storage vessel inspector of the owner or insurer, with respect to all inspections made pursuant to a quality management system of the owner or insurer.
- (2) Reports required by subsection (1) must be made at any intervals that the chief inspector may require.

8 Dec 2017 cB-5.1 Reg 2 s66.

#### Manual

- **67**(1) An owner or insurer must prepare a manual that sets out in detail the quality management system that the owner, insurer or designated inspection company proposes to implement.
- (2) If a certificate of authorization is issued to an owner or insurer with respect to a proposed quality management system, the owner, insurer or inspection company must implement the quality management system in accordance with the manual.
- (3) A manual required by subsection (1) must contain:
  - (a) a title page and table of contents;
  - (b) an organization chart that identifies all positions involved in the quality management system and the reporting relationships to senior management with respect to the quality management system;

- (c) a statement, signed by the most senior official at the site, that describes the authority of the person who is responsible for the implementation of the quality management system to carry out those responsibilities;
- (d) a description of the qualifications and responsibilities of the inspection personnel and other persons involved with the administration of the quality management system;
- (e) a comprehensive list and description of the equipment and piping systems to which the quality management system applies and the location of the equipment;
- (f) a full description of the substantive elements set out in sections 69 to 81; and
- (g) any other elements that the chief inspector may require.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{c} \, \mathrm{B}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}67.$ 

#### Amendment or revision of manual

- **68**(1) An owner or insurer who wishes to amend or revise a manual:
  - (a) must submit the proposed changes to the chief inspector; and
  - (b) must not implement any change until the approval of the chief inspector has been granted.
- (2) If the chief inspector approves an amendment to, or revision of, a manual, the owner or insurer must incorporate in the manual a revision summary to identify the changes made and the status of the documents used in the quality management system.

8 Dec 2017 cB-5.1 Reg 2 s68.

#### Document and data control

**69** A quality management system must include a system for preparing, revising, approving and controlling documents and data required to implement the quality management system, including the manual, procedures, inspection plans, reports and forms.

8 Dec 2017 cB-5.1 Reg 2 s69.

#### Contract review

- **70**(1) A quality management system must include a system for preparing and negotiating contracts relating to pressure equipment and piping systems to ensure that:
  - (a) any goods and services that are the subject of a contract meet the requirements of the Act and these regulations; and
  - (b) each contract is verified and approved by a designated person.
- (2) The owner or insurer must designate in the manual the person or persons who are authorized to verify and approve contracts pursuant to subsection (1).

8 Dec 2017 cB-5.1 Reg 2 s70.

#### Purchasing

71 A quality management system must include a system for ensuring that goods and services that are purchased meet the requirements of the Act and these regulations.

8 Dec 2017 cB-5.1 Reg 2 s71.

#### Measuring and testing equipment

**72** A quality management system must include a system for calibrating and controlling the accuracy of equipment used in any measurements or tests to be carried out as part of any inspection process.

8 Dec 2017 cB-5.1 Reg 2 s72.

#### Inspection of new equipment

73 A quality management system must include a system for the inspection of new pressure equipment and piping systems and their installation to ensure that the requirements of any established criteria are met before the equipment and piping systems are put into service.

8 Dec 2017 cB-5.1 Reg 2 s73.

#### Servicing pressure relief devices

- **74**(1) A quality management system must include a system for servicing pressure relief devices at regular intervals and governing the removal and replacement of pressure relief devices.
- (2) A system required by subsection (1) must include a system for establishing safe maximum intervals for the servicing of pressure relief devices.

8 Dec 2017 cB-5.1 Reg 2 s74.

## Control of special processes

- **75**(1) A quality management system must include systems to govern each special process that will be carried out on the premises to which the quality management system applies.
- (2) A system governing a special process must include the procedures to be followed by persons in carrying out the process and the measures to be taken to determine whether the outcome of the process is satisfactory.

8 Dec 2017 cB-5.1 Reg 2 s75.

#### Periodic inspections

- **76**(1) A quality management system must include a system for the periodic inspection of any pressure equipment and piping system in service to ensure that the equipment and piping system continue to meet the requirements of any established criteria while they are in service.
- (2) A system required by subsection (1) must include a system for establishing safe maximum intervals for the inspection of pressure equipment and piping systems.

8 Dec 2017 cB-5.1 Reg 2 s76.

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#### Inspection of repairs, alterations

77 A quality management system must include a system for the inspection of any pressure equipment and piping systems that have been repaired or altered to ensure that the repaired or altered equipment and piping systems meet the requirements of any established criteria before they are put back into service.

8 Dec 2017 cB-5.1 Reg 2 s77.

#### Rectifying problems, non-conformities

- 78 A quality management system must include procedures for:
  - (a) rectifying any problem found as a result of the operation of the quality management system or otherwise or any non-conformity with established criteria; and
  - (b) preventing the recurrence of any similar problem or non-conformity.

8 Dec 2017 cB-5.1 Reg 2 s78.

#### **Training**

**79** A quality management system must include a system for ensuring that personnel who perform activities that are part of the quality management system have adequate training.

8 Dec 2017 cB-5.1 Reg 2 s79.

#### Internal audit

- **80**(1) A quality management system must include a system for conducting an internal audit of the quality management system from time to time by designated persons to verify the effectiveness of the quality management system.
- (2) The owner or insurer must designate in the manual the person or persons who are authorized to conduct an internal audit.

8 Dec 2017 cB-5.1 Reg 2 s80.

#### Audit by inspectors

- **81**(1) Notwithstanding any exemption from categories of inspections granted pursuant to the Act or these regulations to the holder of a certificate of authorization, an inspector may, from time to time, conduct an audit for the purpose of determining whether or not the holder is operating in compliance with an approved quality management system.
- (2) The powers of inspectors set out in section 20 of the Act apply for the purposes of an audit described in subsection (1).
- (3) With respect to an audit conducted pursuant to subsection (1), the holder of a certificate of authorization shall pay the applicable fee.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}81.$ 

#### DIVISION 3

### Requirements for inspection companies

#### Registration of an inspection company

- **82**(1) An inspection company that intends to provide inspection services of pressure equipment must apply for registration to the chief inspector.
- (2) Before making a decision with respect to an application pursuant to this section, the chief inspector:
  - (a) may require the applicant to provide any further information that the chief inspector considers necessary; and
  - (b) may require an audit to be conducted, at the applicant's expense, of the inspection company's qualifications when inspecting boiler and pressure vessel equipment.
- (3) The chief inspector may register an inspection company and issue a certificate of registration to the applicant if the chief inspector is satisfied, after consideration of the results of any audit conducted and any further information that the chief inspector considers relevant, that the inspection company:
  - (a) will provide control over the inspection activities in accordance with the Act and these regulations; and
  - (b) will ensure the priority is to remove all risk to public safety.
- (4) Subject to subsection (5), a certificate of registration issued pursuant to subsection (3) expires 3 years after the date of issue.
- (5) An inspection company that holds a certificate of registration issued pursuant to subsection (3) and that intends to change a procedure described in its services:
  - (a) must submit a copy of the proposed amendment to an inspector for review;
  - (b) must not implement the amended procedure until an inspector has approved the amendment; and
  - (c) must file a copy of the amendment with the chief inspector as soon as possible after an inspector has approved it.
- (6) The chief inspector may reissue a certificate of registration for an inspection company to an applicant in the name of a successor to the original holder of the certificate if the applicant:
  - (a) provides evidence satisfactory to the chief inspector that the applicant is the successor to the original holder of the certificate; and
  - (b) pays the applicable fee.

8 Dec 2017 cB-5.1 Reg 2 s82.

#### Designated inspection company

- 83 If an owner or insurer contracts a registered inspection company to carry out the owner's or insurer's quality management system of inspections, the owner or insurer must:
  - (a) designate the registered inspection company for the purpose of carrying out the quality management system of inspections;
  - (b) while a quality management system is in operation, ensure that there is a registered inspection company designated pursuant to clause (a) at all times; and
  - (c) notify the chief inspector immediately if the designation of the registered inspection company is terminated or a new designation is made.

8 Dec 2017 cB-5.1 Reg 2 s83.

## DIVISION 4 Certificates of Authorization

#### Application for approval

- **84**(1) For the purposes of section 28 of the Act, an owner or an insurer who wishes to implement a quality management system must apply to the chief inspector for approval in accordance with this section.
- (2) An application for approval of a quality management system:
  - (a) must be made in the manner and form specified by the chief inspector;
  - (b) must indicate the class of certificate of authorization applied for and the scope of the inspection activities that the owner or insurer wishes to carry out;
  - (c) must be accompanied by a manual for the proposed quality management system that meets the requirements of section 67;
  - (d) must be accompanied by a document that sets out the name and class of pressure equipment inspector's licence of each person who is to be a designated pressure equipment inspector for the purposes of the quality management system and these regulations; and
  - (e) must be accompanied by the applicable fee.
- (3) Before making a decision with respect to an application pursuant to this section, the chief inspector:
  - (a) may require the applicant to provide any further information that the chief inspector considers necessary; and
  - (b) may require an audit to be conducted, at the applicant's expense, of the proposed quality management system, which may include an inspection of any boiler, pressure vessel, plant or piping system to which the application relates.
- (4) With respect to an audit conducted pursuant to clause (3)(b), the applicant shall pay the applicable fee.

- (5) The chief inspector may approve a proposed quality management system and issue a certificate of authorization to an applicant if, after review of the manual for the proposed quality management system by an inspector and after consideration of the qualifications of the persons proposed to be the designated pressure equipment inspectors, the results of any audit conducted and any further information that the chief inspector considers relevant, the chief inspector is satisfied that the proposed quality management system:
  - (a) meets the requirements of Division 2; and
  - (b) if implemented in accordance with these regulations:
    - (i) will provide control over the activities to which the manual applies in accordance with the Act and these regulations; and
    - (ii) will not present a serious risk to public safety.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}84.$ 

#### Classes of certificates of authorization

- **85**(1) The following classes of certificates of authorization are established:
  - (a) Class A owner's certificate of authorization;
  - (b) Class B owner's certificate of authorization;
  - (c) Class C insurer's certificate of authorization;
  - (d) Class D owner's certificate of authorization;
  - (e) Class E owner's certificate of authorization.
- (2) A Class A owner's certificate of authorization authorizes the holder to implement a quality management system in which the following inspections are conducted by a designated pressure equipment inspector in accordance with the quality management system and any terms and conditions set out in the certificate of authorization:
  - (a) periodic inspections of any boiler, pressure vessel, pressure piping system or plant that is listed in the manual submitted with the application for approval and located within the premises identified in the certificate of authorization;
  - (b) inspections, in accordance with a design registered pursuant to section 17, of any repair of, or alteration to, any boiler, pressure vessel, pressure piping system or plant described in clause (a);
  - (c) acceptance inspections, in accordance with a design registered pursuant to section 17, of any new pressure piping system installation on the holder's premises;
  - (d) installation inspections of any new boiler, pressure vessel or refrigeration plant installation on the holder's premises.
- (3) A Class B owner's certificate of authorization authorizes the holder to implement a quality management system in which the inspections described in subsection (2), other than periodic inspections of boilers and inspections of repairs to and alterations of boilers and installation inspections of boilers, are conducted by a designated pressure equipment inspector in accordance with the quality management system and any terms and conditions set out in the certificate of authorization.

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- (4) A Class C insurer's certificate of authorization authorizes the holder to implement a quality management system in which periodic inspections of boilers, pressure vessels, pressure piping systems and plants insured by the holder are conducted by a designated pressure equipment inspector in accordance with the quality management system and any terms and conditions set out in the certificate of authorization.
- (5) A Class D owner's certificate of authorization authorizes the holder to implement a quality management system in which the inspections described in subsection (2), (3) or (4) of an owner's boilers, pressure vessels, pressure piping systems and plants are performed by a designated inspection company with a certificate of registration pursuant to section 82 and are conducted by a designated pressure equipment inspector in accordance with the quality management system and any terms and conditions set out in the certificate of authorization.
- (6) A Class E owner's certificate of authorization authorizes the holder to implement a quality management system in which periodic inspections of the owner's propane storage vessels described in clauses 33(c), (d) and (e) are conducted by a propane storage vessel inspector in accordance with the quality management system and any terms and conditions set out in the certificate of authorization.

8 Dec 2017 cB-5.1 Reg 2 s85.

#### Duration of certificate of authorization

- 86(1) A certificate of authorization issued pursuant to this Division is valid for a period of 3 years from the date of issue.
- (2) The chief inspector may reissue a certificate of authorization for a quality management system to an applicant in the name of a successor to the original holder of the certificate if the applicant:
  - (a) provides evidence satisfactory to the chief inspector that the applicant is the successor to the original holder of the certificate; and
  - (b) pays the applicable fee.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}86.$ 

### Certain requirements not affected by quality management system

- 87(1) The approval of a quality management system by the chief inspector and the issuance of a certificate of authorization does not relieve the holder of the certificate from any obligation imposed by the Act or these regulations other than those that are specifically addressed in the Act, these regulations or a manual that has been approved by the chief inspector.
- (2) Without limiting the generality of subsection (1), any installation, repair or alteration to a boiler, pressure vessel or pressure piping system that may be inspected pursuant to a quality management system must be made by the holder of a contractor's licence.

8 Dec 2017 cB-5.1 Reg 2 s87.

#### DIVISION 5

### Conducting a Quality Management System of Inspection

#### Compliance with clause 5(1)(e) of Act

- 88(1) Subject to subsection (2) and for the purposes of clause 5(1)(e) of the Act, a person who conducts an inspection on behalf of an insurer or in connection with a quality management system must be a licensed pressure equipment inspector.
- (2) A propane storage vessel inspector is not required to hold a licence for the purposes of clause 5(1)(e) of the Act.

8 Dec 2017 cB-5.1 Reg 2 s88.

## PART 8 Pressure Equipment Inspectors

## DIVISION 1 **Definition for Part**

#### **Definition for Part**

**89** In this Part, **"examination"** means an examination for a certificate of qualification mentioned in Division 2.

8 Dec 2017 cB-5.1 Reg 2 s89.

## DIVISION 2 Examination Information

#### Eligibility to write examination

- **90**(1) A person is eligible to write an examination for a pressure equipment inspector's certificate, class 1, class 2 or class 3, if the person possesses at least 5 credits for his or her technical qualifications and work experience determined in accordance with subsections (2) to (5).
- (2) To be eligible to write an examination for a pressure equipment inspector's certificate, class 1, a person must possess technical qualifications and work experience that relate to the scope of authority conferred by a pressure equipment inspector's licence, class 1.
- (3) At least 1 of the 5 credits required pursuant to subsection (1) must be a credit for technical qualifications pursuant to subsection (4), and at least 1 of the 5 credits must be a credit for work experience pursuant to subsection (5).
- (4) Credits for technical qualifications are assigned as follows:
  - (a) 1 credit for a journeyperson certificate of qualification in a designated trade, within the meaning of *The Apprenticeship and Trade Certification Act, 1999*, that is related to the construction, installation, alteration or repair of pressure equipment;
  - (b) 1 credit for a third class power engineer's certificate of qualification;
  - (c) 2 credits for a second class power engineer's certificate of qualification;

- (d) 2 credits for a diploma in engineering technology;
- (e) 3 credits for a first class power engineer's certificate of qualification;
- (f) 4 credits for a bachelor's degree in engineering in a related discipline.
- (5) One credit is assigned for each year of work experience related to boilers, pressure vessels and pressure piping systems in the following activities:
  - (a) engineering design;
  - (b) construction, installation, alteration or repair;
  - (c) quality control programs related to the construction, installation, alteration or repair of boilers and pressure vessels;
  - (d) inspection of boilers, pressure vessels and pressure piping systems.

8 Dec 2017 cB-5.1 Reg 2 s90.

#### Application to write examination

- **91** A person who wishes to write a pressure equipment inspector's examination must:
  - (a) apply to the chief inspector in writing in the manner and form specified by the chief inspector;
  - (b) provide evidence satisfactory to the chief inspector that the person meets the requirements set out in section 90; and
  - (c) pay the applicable fee for the examination for a:
    - (i) pressure equipment inspector's certificate, class 1;
    - (ii) pressure equipment inspector's certificate, class 2; or
    - (iii) pressure equipment inspector's certificate, class 3.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}91.$ 

#### Special examination

- **92**(1) A candidate for an examination who is unable to take the examination at a regular sitting or at the place where an examination is scheduled to be held may apply to the chief inspector to take the examination on a special date or at a special location.
- (2) A candidate who makes an application pursuant to subsection (1) must provide the chief inspector with the candidate's reasons for the application and provide any further information that the chief inspector may request.
- (3) If the chief inspector is satisfied that the candidate's reasons for the application justify the holding of a special examination for the candidate, the chief inspector may permit the candidate to take the examination at a date or location other than the regular date or location.
- (4) A candidate for whom a special examination is arranged pursuant to subsection (3) shall pay the applicable fee pursuant to section 91.

8 Dec 2017 cB-5.1 Reg 2 s92.

#### False or misleading statement

- **93**(1) If a false or misleading statement is made in an application for any examination or in any reference or other evidence of qualification submitted by or on behalf of a candidate, the chief inspector may deny the application.
- (2) If the discovery of a false or misleading statement described in subsection (1) is made after a certificate of qualification has been issued, the chief inspector may cancel the certificate.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{c} \, \mathrm{B}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}93.$ 

#### Conduct of examinations - Division 2

**94** Every examination must be written.

8 Dec 2017 cB-5.1 Reg 2 s94.

#### Misconduct during examination

- **95**(1) Any candidate who, during an examination, refers to material that has not been first approved by the examining inspector may be disqualified from further examinations for a period specified by the chief inspector.
- (2) A certificate of qualification will not be issued to any candidate who removes or copies with intent to remove from the examination room any questions given in the examination.
- (3) If the discovery of any removal or intended removal of questions given in an examination is made after a certificate of qualification is issued, the chief inspector may cancel the certificate.

8 Dec 2017 cB-5.1 Reg 2 s95.

#### Pass mark

**96** The minimum pass mark for each examination is 70%.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}96.$ 

#### Waiting period for re-examination

- 97 With respect to a candidate who fails any examination, the candidate must:
  - (a) wait for a period specified by the chief inspector, not exceeding 30 days, before being re-examined;
  - (b) wait for a period specified by the chief inspector, not exceeding 12 months, before being examined for any examination if the candidate has consecutively failed 3 papers of any examination; or
  - (c) wait for a period specified by the chief inspector, not exceeding 12 months, before being examined for any examination if the candidate has consecutively failed the same examination paper 3 times.

8 Dec 2017 cB-5.1 Reg 2 s97.

## DIVISION 3 Certificates and Qualification

#### Certificates of qualification

- **98**(1) The following classes of pressure equipment inspectors' certificates of qualification are established:
  - (a) pressure equipment inspector's certificate, class 1;
  - (b) pressure equipment inspector's certificate, class 2;
  - (c) pressure equipment inspector's certificate, class 3.
- (2) A certificate of qualification of the appropriate class will be issued to a candidate who:
  - (a) passes the examination for a particular class of certificate; and
  - (b) otherwise complies with the requirements of the Act and these regulations.

8 Dec 2017 cB-5.1 Reg 2 s98.

## DIVISION 4 Pressure Equipment Inspector Licences

## Eligibility for pressure equipment inspector's licences

- **99**(1) Subject to subsection (3), the chief inspector may issue a pressure equipment inspector's licence of the appropriate class to a person who:
  - (a) passes an examination with respect to the Act, these regulations and the adopted standards; and
  - (b) holds:
    - (i) a valid pressure equipment inspector's certificate of qualification;
    - (ii) a valid inspector's Inservice Commission issued by NBBI;
    - (iii) a valid Inservice Pressure Equipment Inspector certificate issued by NBBI; or
    - (iv) a valid certificate, equivalent to the commission described in subclause (ii), issued by The American Petroleum Institute pursuant to the requirements of the API 510 Pressure Vessel Inspector Certification Program, 2014, 10th edition.
- (2) A person who wishes to apply for the issuance of a pressure equipment inspector's licence pursuant to subsection (1) must:
  - (a) provide evidence satisfactory to the chief inspector that the person meets the requirements set out in subsection (1); and
  - (b) pay the applicable fee.
- (3) A person who is applying for a pressure equipment inspector's licence class 3 need not pass an examination with respect to the Act, these regulations and adopted standards as indicated in clause (1)(a).

8 Dec 2017 cB-5.1 Reg 2 s99.

#### Classes of pressure equipment inspectors' licences

100 The following classes of pressure equipment inspector's licences are established:

- (a) pressure equipment inspector's class 1 licence;
- (b) pressure equipment inspector's class 2 licence;
- (c) pressure equipment inspector's class 3 licence.

8 Dec 2017 cB-5.1 Reg 2 s100.

### Scope of pressure equipment inspector's licence

- **101**(1) A pressure equipment inspector's class 1 licence authorizes the holder to inspect and issue an inspection certificate with respect to any of the following:
  - (a) a boiler, a pressure vessel or a refrigeration plant, including any associated pressure piping system, for which the owner holds a valid owner's licence to operate issued pursuant to section 34 or 36 or is deemed to hold an owner's licence pursuant to section 37;
  - (b) a pressure vessel to which the Act applies but that is exempted by section 33 from the requirement for an owner's licence to operate;
  - (c) with respect to a boiler, pressure vessel or refrigeration plant described in clause (a) or (b), a repair or alteration for which a design has been registered pursuant to subsection 11(1) of the Act;
  - (d) an installation of a new boiler or pressure vessel, including any associated pressure piping system, pursuant to subsection 35(2);
  - (e) an installation of a boiler or pressure vessel, including any associated pressure piping system, for which the owner holds a valid licence to operate issued pursuant to section 34 or 36 that has been moved to a new location;
  - (f) a re-installation of a boiler or pressure vessel, including any associated pressure piping system, for which the owner holds a valid licence to operate issued pursuant to section 34 or 36 that has been returned to its original installation location following a repair or alteration performed at a different location;
  - (g) an installation of a new pressure piping system for which a design has been registered pursuant to subsection 11(1) of the Act.
- (2) A pressure equipment inspector's class 2 licence authorizes the holder to inspect and issue an inspection certificate with respect to any of the following:
  - (a) a pressure vessel for which the owner holds a valid owner's licence to operate issued pursuant to section 34 or 36 or is deemed to hold an owner's licence pursuant to section 37, and any associated pressure piping system;
  - (b) a pressure vessel to which the Act applies but that is exempted by section 33 from the requirement for an owner's licence to operate;
  - (c) with respect to a pressure vessel described in clause (a) or (b), a repair or alteration for which a design has been registered pursuant to subsection 11(1) of the Act;
  - (d) an installation of a new pressure vessel, including any associated pressure piping system, pursuant to subsection 35(2);

# (e) an installation of a pressure vessel, including any associated pressure piping system, for which the owner holds a valid licence to operate issued

pursuant to section 34 or 36 that has been moved to a new location;

- (f) a re-installation of a pressure vessel, including any associated pressure piping system, for which the owner holds a valid licence to operate issued pursuant to section 34 or 36 that has been returned to its original installation
- (g) an installation of a new pressure piping system for which a design has been registered pursuant to subsection 11(1) of the Act.

location following a repair or alteration performed at a different location;

- (3) A pressure equipment inspector's class 3 licence authorizes the holder to inspect with respect to any of the following:
  - (a) a pressure vessel for which the owner holds a valid owner's licence to operate issued pursuant to section 34 or 36 or is deemed to hold an owner's licence pursuant to section 37 and any associated pressure piping system;
  - (b) a pressure vessel to which the Act applies but that is exempted by section 33 from the requirement for an owner's licence to operate;
  - (c) with respect to a pressure vessel described in clause (a) or (b), a repair or alteration for which a design has been registered pursuant to subsection 11(1) of the Act;
  - (d) an installation of a new pressure piping system for which a design has been registered pursuant to subsection 11(1) of the Act.
- (4) A pressure equipment inspector's class 3 licence does not authorize the holder to issue an inspection certificate, perform installation inspections or perform acceptance inspections.

8 Dec 2017 cB-5.1 Reg 2 s101.

### Duration of licence

**102** A pressure equipment inspector's licence issued pursuant to this Division is valid for up to 5 years from the date of issue.

 $8 \; \mathrm{Dec} \; 2017 \; \mathrm{c} \, \mathrm{B}\text{-}5.1 \; \mathrm{Reg} \; 2 \; \mathrm{s} 102.$ 

## PART 9 Power Engineers

## DIVISION 1 **Definition for Part**

#### **Definition for Part**

**103** In this Part, "examination" means an examination for a certificate of qualification mentioned in Division 2.

 $8 \; \mathrm{Dec} \; 2017 \; \mathrm{c} \, \mathrm{B}\text{-}5.1 \; \mathrm{Reg} \; 2 \; \mathrm{s} 103.$ 

## DIVISION 2 Examination Information

#### Application for examination

- **104**(1) Subject to subsection (2) and section 105, a candidate for any examination must apply to the chief inspector in the manner and form specified by the chief inspector.
- (2) A candidate for a refrigeration plant operator's examination or the examination for any category of boiler operator may apply to the chief inspector at any time before the examination.
- (3) A candidate for an examination must submit the applicable fee with the application.

 $8 \ {\rm Dec} \ 2017 \ {\rm cB}\text{-}5.1 \ {\rm Reg} \ 2 \ {\rm s}104.$ 

#### Special examination

- **105**(1) A candidate for an examination who is unable to take the examination at a regular sitting or at the place where an examination is scheduled to be held may apply to the chief inspector to take the examination on a special date or at a special location.
- (2) A candidate who makes an application pursuant to subsection (1) must provide the chief inspector with the candidate's reasons for the application and provide any further information that the chief inspector may request.
- (3) If the chief inspector is satisfied that the candidate's reasons for the application justify the holding of a special examination for the candidate, the chief inspector may permit the candidate to take the examination at a date or location other than the regular date or location.
- (4) A candidate for whom a special examination is arranged pursuant to subsection (3) shall pay the applicable fee pursuant to section 104.

8 Dec 2017 cB-5.1 Reg 2 s105.

#### False or misleading statement

- **106**(1) If a false or misleading statement is made in an application for any examination or in any reference or other evidence of qualification submitted by or on behalf of a candidate, the chief inspector may deny the application.
- (2) If the discovery of a false or misleading statement described in subsection (1) is made after a certificate of qualification has been issued, the chief inspector may cancel the certificate.

8 Dec 2017 cB-5.1 Reg 2 s106.

#### Conduct of examinations - Division 2

- **107**(1) A candidate for the first, second, third and fourth class power engineer's examinations may write a single paper or any number of papers at any scheduled examination sitting.
- (2) Subject to subsections (3) and (4), every examination must be written.

- (3) A refrigeration operator's or boiler operator's examination may be written or oral or both at the discretion of the examining inspector.
- (4) With the approval of the chief inspector or the examining inspector, a candidate for an examination other than an examination for a first or second class power engineer's certificate may use the services of an amanuensis, if the amanuensis first executes a statement verified by statutory declaration that he or she has no special knowledge of the subject-matter of the examination.

8 Dec 2017 cB-5.1 Reg 2 s107.

#### Misconduct during examination

- **108**(1) Any candidate who, during an examination, refers to material that has not been first approved by the examining inspector may be disqualified from further examinations for a period specified by the chief inspector.
- (2) A certificate of qualification will not be issued to any candidate who removes or copies with intent to remove from the examination room any questions given in the examination.
- (3) If the discovery of any removal or intended removal of questions given in an examination is made after a certificate of qualification is issued, the chief inspector may cancel the certificate.

8 Dec 2017 cB-5.1 Reg 2 s108.

#### Pass mark

- **109**(1) The minimum pass mark for each examination is 65%.
- (2) In the case of an examination that consists of more than one paper, the minimum pass mark for each paper is 65%.

8 Dec 2017 cB-5.1 Reg 2 s109.

#### Waiting period for re-examination

- 110 With respect to a candidate who fails any examination, the candidate must:
  - (a) wait for a period specified by the chief inspector, not exceeding 30 days, before being re-examined;
  - (b) wait for a period specified by the chief inspector, not exceeding 12 months, before being examined for any examination if the candidate has consecutively failed 3 papers of any examination; or
  - (c) wait for a period specified by the chief inspector, not exceeding 12 months, before being examined for any examination if the candidate has consecutively failed the same examination paper 3 times.

8 Dec 2017 cB-5.1 Reg 2 s110.

## DIVISION 3 Certificates and Qualification

#### Certificates of qualification

- **111**(1) The following classes of certificates of qualification are established:
  - (a) first class power engineer's certificate;
  - (b) second class power engineer's certificate;
  - (c) third class power engineer's certificate;
  - (d) fourth class power engineer's certificate;
  - (e) fifth class power engineer's certificate;
  - (f) fireman boiler operator certificate;
  - (g) oilfield A boiler operator certificate;
  - (h) oilfield B boiler operator certificate;
  - (i) refrigeration engineer's certificate;
  - (j) refrigeration plant operator's certificate.
- (2) A certificate of qualification of the appropriate class will be issued to a candidate who:
  - (a) passes the examination for a particular class of certificate; and
  - (b) subject to subsections (3) and (4), submits evidence satisfactory to the chief inspector of written verification of operating experience from the employer or employers in whose service the candidate has acquired operating experience of the kind and duration required for the class of certificate; and
  - (c) complies with the requirements of the Act and these regulations.
- (3) Subject to sections 118 and 120, there are no operating experience requirements for certification for:
  - (a) a fireman boiler operator's certificate;
  - (b) an oilfield A boiler operator's certificate; or
  - (c) a refrigeration plant certificate.
- (4) Operating experience required for a candidate's qualification for certification must have been acquired immediately before the date of the candidate's application unless, in the opinion of the chief inspector, it would be reasonable in the circumstances to give credit for operating experience acquired at an earlier time.

8 Dec 2017 cB-5.1 Reg 2 s111.

#### **Education requirements**

- 112(1) There is a minimum education requirement of:
  - (a) Grade 10 for the fourth and third class power engineer's examinations;
  - (b) Grade 11 for the second class power engineer's examination; and
  - (c) Grade 12 for the first class power engineer's examination.

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- (2) A candidate for a first, second or third class power engineer's examination may write the Part A or Part B examination paper at any scheduled examination after the candidate has obtained the second, third or fourth class power engineer's certificate respectively.
- (3) A candidate for a fourth or fifth class power engineer's examination or a refrigeration engineer's examination may write the Part A or Part B examination without holding an operator's certificate of qualification of any class.
- (4) Notwithstanding subsection (2), a person who has passed all third class power engineering examination papers and who is enrolled in a 2-year power engineering technology program satisfactory to the chief inspector may write the Part A examination papers for a second class power engineering examination.

8 Dec 2017 cB-5.1 Reg 2 s112.

#### First class power engineer's certificate

- 113(1) A person may qualify for a certificate of qualification for a first class power engineer's certificate if the person is the holder of a valid second class power engineer's certificate and, since the issue of that certificate:
  - (a) for at least 30 months, has operated as chief engineer an oilfield once-through boiler or an oilfield once-through boiler plant with a capacity greater than 10 000 kilowatts or any other high pressure boiler or high pressure boiler plant with a capacity greater than 5 000 kilowatts;
  - (b) for at least 30 months, has operated as shift engineer an oilfield once-through boiler or oilfield once-through boiler plant with a capacity greater than 15 000 kilowatts or any other high pressure boiler or high pressure boiler plant with a capacity greater than 10 000 kilowatts;
  - (c) for at least 42 months, has assisted in the operation of an oilfield once-through boiler or oilfield once-through boiler plan with a capacity greater than 15 000 kilowatts or any other high pressure boiler or high pressure boiler plant with a capacity greater than 10 000 kilowatts;
  - (d) for at least 15 months, has operated in the role described in clause (a), (b) or (c) and is a graduate engineer; or
  - (e) for at least one-half of the period mentioned in clause (a), (b) or (c), has operated in the role described in that clause and, for at least 36 months, has performed in a supervisory capacity acceptable to the chief inspector on the design, construction, installation, repair, maintenance or operation of pressure equipment.
- (2) Twelve months' credit will be granted towards the fulfilment of the operating experience requirement set out in clause (1)(a), (b) or (c) for the successful completion of an approved course in power engineering leading towards a first class power engineer's certificate.

8 Dec 2017 cB-5.1 Reg 2 s113.

#### Second class power engineer's certificate

- 114(1) A person may qualify for a certificate of qualification for a second class power engineer's certificate if the person is the holder of a valid third class power engineer's certificate and, since the issue of that certificate:
  - (a) for at least 24 months, has operated as chief engineer an oilfield once-through boiler or oilfield once-through boiler plant with a capacity greater than 5 000 kilowatts or any other high pressure boiler or high pressure boiler plant with a capacity greater than 1 000 kilowatts;
  - (b) for at least 24 months, has operated as shift engineer an oilfield once-through boiler or oilfield once-through boiler plant with a capacity greater than 10 000 kilowatts or any other high pressure boiler or high pressure boiler plant with a capacity greater than 5 000 kilowatts;
  - (c) for at least 36 months, has operated as shift engineer an oilfield once-through boiler or oilfield once-through boiler plant with a capacity greater than 5 000 kilowatts or any other high pressure boiler or high pressure boiler plant with a capacity greater than 1 000 kilowatts;
  - (d) for at least 24 months, has assisted in the operation of an oilfield once-through boiler or oilfield once-through boiler plant with a capacity greater than 15 000 kilowatts or any other high pressure boiler or high pressure boiler plant with a capacity greater than 10 000 kilowatts;
  - (e) for at least 12 months, has operated in a role described in clause (a), (b), (c) or (d) and is a graduate engineer; or
  - (f) for at least one-half of the period mentioned in clause (a), (b), (c) or (d), has operated in the role described in that clause and, for at least 24 months, has performed in a supervisory capacity acceptable to the chief inspector on the design, construction, installation, repair, maintenance or operation of pressure equipment.
- (2) Nine months' credit will be granted towards the fulfilment of the operating experience requirement set out in clause (1)(a), (b), (c) or (d) for the successful completion of an approved course in power engineering leading towards a second class power engineer's certificate.

8 Dec 2017 cB-5.1 Reg 2 s114.

### Third class power engineer's certificate

- **115**(1) A person may qualify for a certificate of qualification for a third class power engineer's certificate if the person is the holder of a valid fourth class power engineer's certificate and, since the issue of that certificate:
  - (a) for at least 12 months, has operated as a chief engineer an oilfield once-through boiler or oilfield once-through boiler plant with a capacity greater than 1 000 kilowatts or any other high pressure boiler or high pressure boiler plant with a capacity greater than 500 kilowatts;
  - (b) for at least 12 months, has operated as a shift engineer an oilfield once-through boiler or oilfield once-through boiler plant with a capacity greater than 2 000 kilowatts or any other high pressure boiler or high pressure boiler plant with a capacity greater than 1 000 kilowatts;

#### B-5.1 REG 2

- (c) for at least 12 months, has assisted in the operation of an oilfield once-through boiler or oilfield once-through boiler plant with a capacity greater than 10 000 kilowatts or any other high pressure boiler or high pressure boiler plant with a capacity greater than 5 000 kilowatts;
- (d) for at least 18 months, has assisted in the operation of an oilfield once-through boiler or oilfield once-through boiler plant with a capacity greater than 5 000 kilowatts;
- (e) for at least 24 months, has operated as chief engineer or shift engineer a low pressure boiler or low pressure boiler plant with a capacity greater than 3 000 kilowatts, with the capacity of the plant calculated as the aggregate capacity of all boilers installed in the plant;
- (f) for at least one-half of the period mentioned in clause (a), (b), (c), (d) or (e), has operated in the role described in that clause and, for at least 12 months, has performed in a role acceptable to the chief inspector on the design, construction, installation, repair, maintenance or operation of pressure equipment;
- (g) for at least 12 months, has operated as a process operator involving steam equipment in a role acceptable to the chief inspector and has completed an approved course in power engineering leading towards a third class power engineer's certificate; or
- (h) for at least 6 months, has acquired experience in the operation of a high pressure boiler or high pressure boiler plant with a capacity greater than 1 000 kilowatts and is a graduate engineer.
- (2) Six months' credit will be granted towards the fulfilment of the operating experience requirement set out in clause (1)(a), (b), (c), (d) or (e) for the successful completion of an approved course in power engineering leading towards a third class power engineer's certificate.
- (3) Nine months' credit will be granted towards the fulfilment of the operating experience requirement set out in clause (1)(a), (b), (c), (d) or (e) for the successful completion of an approved 2-year power engineering program leading towards a third class power engineer's certificate and satisfactory to the chief inspector.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{c} \, \mathrm{B}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}115.$ 

#### Fourth class power engineer's certificate

- **116**(1) A person may qualify for a certificate of qualification for a fourth class power engineer's certificate if the person:
  - (a) is the holder of a valid fifth class power engineer's certificate and for at least 12 months, has operated as a chief engineer an oilfield once-through boiler or oilfield-once through boiler plant with a capacity greater than 250 kilowatts;
  - (b) is the holder of a valid fifth class power engineer's certificate and for at least 12 months, has operated an oilfield once-through boiler or oilfield once-through boiler plant with a capacity greater than 1 000 kilowatts or any other high pressure boiler or high pressure boiler plant with a capacity of not less than 250 kilowatts;

- (c) for at least 12 months, has assisted in the operation of an oilfield once-through boiler or oilfield once-through boiler plant with a capacity greater than 2 000 kilowatts or any other high pressure boiler or high pressure boiler plant with a capacity of not less than 1 000 kilowatts;
- (d) is the holder of a valid fifth class power engineer's certificate and, for at least 24 months, has operated as chief engineer a low pressure boiler or low pressure boiler plant with a capacity greater than 750 kilowatts, with the capacity of the plant calculated as the aggregate capacity of all boilers installed in the plant;
- (e) for at least 24 months, has assisted in the operation of a low pressure boiler or low pressure boiler plant with a capacity greater than 1 500 kilowatts, with the capacity of the plant calculated as the aggregate capacity of all boilers installed in the plant;
- (f) has successfully completed an approved full-time course in power engineering that:
  - (i) includes operating experience; and
  - (ii) leads towards a fourth class power engineer's certificate;
- (g) is a graduate engineer that:
  - (i) for at least 2 months, has acquired experience in the operation of a high pressure boiler or high pressure boiler plant with a capacity greater than 500 kilowatts;
  - (ii) for at least 2 months, has acquired experience in the operation of a low pressure boiler or low pressure boiler plant with a capacity greater than 1 000 kilowatts;
  - (iii) for at least 6 months, has performed in a role acceptable to the chief inspector on the design, construction, installation, repair, maintenance or operation of pressure equipment; or
  - (iv) has successfully completed an approved operating experience course lab leading towards the fourth class power engineer's certificate;
- (h) for at least one-half of the period mentioned in clause (a), (b) or (c), has operated in the role described in that clause and, for at least 12 months, has performed in a role acceptable to the chief inspector on the design, construction, installation, repair, maintenance or operation of pressure equipment; or
- (i) has at least 12 months' experience as a process operator in a role acceptable to the chief inspector and has completed an approved course in power engineering leading towards a fourth class power engineer's certificate.
- (2) Six months' credit will be granted towards fulfilment of the operating experience requirement set out in clause (1)(a), (b), (c), (d) or (e) for the successful completion of an approved course in power engineering leading towards a fourth class power engineer's certificate.

#### Fifth class power engineer's certificate

- **117**(1) A person may qualify for a certificate of qualification for a fifth class power engineer's certificate if the person:
  - (a) holds a valid fireman boiler operator certificate and, for at least 12 months since the issue of that certificate, has been in charge of a low pressure boiler or low pressure boiler plant with a capacity of not less than 300 kilowatts, with the capacity of the plant calculated as the aggregate capacity of all boilers installed in the plant;
  - (b) for at least 12 months, has assisted in the operation and maintenance of a high pressure boiler with a capacity of not less than 30 kilowatts;
  - (c) for at least 12 months, has assisted in the operation and maintenance of a low pressure boiler or low pressure boiler plant with a capacity of not less than 1 000 kilowatts, with the capacity of the plant calculated as the aggregate capacity of all boilers installed in the plant;
  - (d) for at least 24 months, has assisted in the operation and maintenance of a low pressure boiler or low pressure boiler plant with a capacity of not less than 300 kilowatts, with the capacity of the plant calculated as the aggregate capacity of all boilers installed in the plant, and has successfully completed an approved course in power engineering leading towards a fifth class power engineer's certificate;
  - (e) for at least 36 months, has performed in a role acceptable to the chief inspector on the design, construction, installation, operation, maintenance or repair of any boiler plant or associated auxiliary equipment and has successfully completed an approved course in power engineering leading towards a fifth class power engineer's certificate; or
  - (f) has successfully completed an approved full-time course in power engineering that:
    - (i) includes operating experience; and
    - (ii) leads towards a fifth class power engineer's certificate.
- (2) Six months' credit will be granted towards the fulfilment of the operating experience requirement set out in clause (1)(a), (b) or (c) for the successful completion of an approved course in power engineering leading towards a fifth class power engineer's certificate.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{c} \, \mathrm{B}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}117.$ 

#### Boiler operator certificates

118 A person may qualify for a certificate of qualification for a boiler operator's certificate if the person satisfies the chief inspector that he or she has sufficient knowledge of and experience in the operation and maintenance of boilers and related equipment or has completed an approved course in power engineering specifically related to boilers and related equipment.

8 Dec 2017 cB-5.1 Reg 2 s118.

#### Refrigeration engineer's certificate

- 119 A person may qualify for a certificate of qualification for a refrigeration engineer's certificate if the person:
  - (a) for at least 12 months, has operated or assisted in the operation of a refrigeration plant with a capacity of not less than 20 tonnes of refrigeration;
  - (b) is the holder of a first, second, third, fourth or fifth class engineer's certificate;
  - (c) has completed an approved course related to refrigeration engineering; or
  - (d) possesses a journeyperson's certificate in the refrigeration and air conditioning mechanic trade issued pursuant to *The Apprenticeship and Trade Certification Act, 1999* or an equivalent certificate pursuant to any predecessor Act respecting apprenticeship.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{c} \, \mathrm{B}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}119.$ 

#### Refrigeration plant operator's certificate

**120** A person may qualify for a certificate of qualification for a refrigeration plant operator's certificate if the person satisfies the chief inspector that he or she has sufficient knowledge of and experience in the operation and maintenance of refrigeration plants or has completed an approved course in refrigeration plant operations or refrigeration engineering.

8 Dec 2017 cB-5.1 Reg 2 s120.

## DIVISION 4 Power Engineer Licences

#### Classes of operators' licences established

- 121 The following classes of operators' licences are established:
  - (a) first class power engineer;
  - (b) second class power engineer;
  - (c) third class power engineer;
  - (d) fourth class power engineer;
  - (e) fifth class power engineer;
  - (f) fireman boiler operator;
  - (g) oilfield A boiler operator;
  - (h) oilfield B boiler operator;
  - (i) refrigeration engineer;
  - (j) refrigeration plant operator.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}121.$ 

#### Scope of authority of operators' licences

- **122**(1) A first class power engineer's licence entitles the holder to operate as chief engineer or shift engineer any of the following:
  - (a) a high pressure boiler or high pressure boiler plant of any capacity;
  - (b) a low pressure boiler or low pressure boiler plant of any capacity;
  - (c) an oilfield once-through boiler or oilfield once-through boiler plant of any capacity;
  - (d) a refrigeration plant of any capacity.
- (2) A second class power engineer's licence entitles the holder:
  - (a) to operate as chief engineer any of the following:
    - (i) a high pressure boiler or high pressure boiler plant with a capacity of not more than 10 000 kilowatts:
    - (ii) a low pressure boiler or low pressure boiler plant of any capacity;
    - (iii) an oilfield once-through boiler or oilfield once-through boiler plant with a capacity of not more than 15 000 kilowatts;
  - (b) to operate as shift engineer any of the following:
    - (i) a high pressure boiler or high pressure boiler plant of any capacity;
    - (ii) a low pressure boiler or low pressure boiler plant of any capacity;
    - (iii) an oilfield once-through boiler or oilfield once-through boiler plant of any capacity; and
  - (c) to operate a refrigeration plant of any capacity.
- (3) A third class power engineer's licence entitles the holder:
  - (a) to operate as chief engineer any of the following:
    - (i) a high pressure boiler or high pressure boiler plant with a capacity of not more than 5 000 kilowatts;
    - (ii) a low pressure boiler or low pressure boiler plant of any capacity;
    - (iii) an oilfield once-through boiler or oilfield once-through boiler plant with a capacity of not more than 10 000 kilowatts; and
  - (b) to operate as shift engineer any of the following:
    - (i) a high pressure boiler or high pressure boiler plant with a capacity of not more than 10 000 kilowatts;
    - (ii) a low pressure boiler or low pressure boiler plant of any capacity;
    - (iii) an oilfield once-through boiler or oilfield once-through boiler plant with a capacity of not more than 15 000 kilowatts; and
  - (c) to operate a refrigeration plant of any capacity.

- (4) A fourth class power engineer's licence entitles the holder:
  - (a) to operate as chief engineer any of the following:
    - (i) a high pressure boiler or high pressure boiler plant with a capacity of not more than 1 000 kilowatts;
    - (ii) a low pressure boiler or low pressure boiler plant of any capacity;
    - (iii) an oilfield once-through boiler or oilfield once-through boiler plant with a capacity of not more than 5 000 kilowatts; and
  - (b) to operate as shift engineer any of the following:
    - (i) a high pressure boiler or high pressure boiler plant with a capacity of not more than 5 000 kilowatts;
    - (ii) a low pressure boiler or low pressure boiler plant of any capacity;
    - (iii) an oilfield once-through boiler or oilfield once-through boiler plant with a capacity of not more than 10 000 kilowatts; and
  - (c) to operate a refrigeration plant with a capacity of not more than 500 tonnes.
- (5) A fifth class power engineer's licence entitles the holder:
  - (a) to operate as chief engineer any of the following:
    - (i) a high pressure boiler or high pressure boiler plant with a capacity of not more than 500 kilowatts;
    - (ii) a low pressure boiler or low pressure boiler plant of any capacity;
    - (iii) an oilfield once-through boiler or oilfield once-through boiler plant with a capacity of not more than 500 kilowatts; and
  - (b) to operate as shift engineer any of the following:
    - (i) a high pressure boiler or high pressure boiler plant with a capacity of not more than 1 000 kilowatts;
    - (ii) a low pressure boiler or low pressure boiler plant of any capacity;
    - (iii) an oilfield once-through boiler or oilfield once-through boiler plant with a capacity of not more than 2 000 kilowatts; and
  - (c) to operate a refrigeration plant with a capacity of not more than 200 tonnes.
- (6) A fireman boiler operator licence entitles the holder:
  - (a) to operate as chief engineer any of the following:
    - (i) a low pressure boiler or low pressure boiler plant with a capacity of not more than 1 000 kilowatts;
    - (ii) a high pressure boiler with a capacity of not more than 300 kilowatts;
  - (b) to operate as shift engineer any of the following:
    - (i) a high pressure boiler or high pressure boiler plant with a capacity of not more than 500 kilowatts;
    - (ii) a low pressure boiler or low pressure boiler plant of any capacity.

- (7) An oilfield A boiler operator's licence entitles the holder to operate a high pressure boiler or high pressure boiler plant that does not exceed 500 kilowatts in an oilfield location.
- (8) An oilfield B boiler operator's licence entitles the holder to operate a high pressure boiler or high pressure boiler plant that does not exceed 1 000 kilowatts in an oilfield location.
- (9) A refrigeration engineer's licence entitles the holder to operate a refrigeration plant of any capacity.
- (10) A refrigeration plant operator's licence entitles the holder to operate a refrigeration plant with a capacity of not more than 100 tonnes.

8 Dec 2017 cB-5.1 Reg 2 s122.

#### Application for operator's licence

- **123**(1) The holder of an operator's certificate of qualification is entitled to apply for an operator's licence of a class that corresponds to the class of certificate of qualification of the holder.
- (2) The chief inspector may issue an operator's licence of the appropriate class to an applicant who holds an operator's certificate of qualification and pays the applicable fee.
- (3) An operator's licence issued pursuant to this section allows the holder the option to purchase a licence that is valid for a period of up to 5 years, as set out in the licence, from the date of issue.

8 Dec 2017 c B-5.1 Reg 2 s123.

### Permit to operate in urgent cases

- **124**(1) An owner of a boiler, boiler plant or refrigeration plant who requires a permit pursuant to subsection 34(1) of the Act must apply to the chief inspector in the manner and form specified by the chief inspector and submit with the application the applicable fee for a:
  - (a) 30-day permit; or
  - (b) 90-day permit.
- (2) An application for renewal of a permit pursuant to subsection 34(1) of the Act must be made before the expiry of the permit.
- (3) A power engineer who is otherwise required to be in personal attendance on a boiler or plant at all times pursuant to clause 33(1)(b) of the Act may be temporarily absent for a period of not more than 8 days if:
  - (a) a chief engineer assigns a power engineer to operate the boiler or plant who holds a certificate of qualification that is not more than 1 class lower than the class of certificate required; and
  - (b) the owner or chief engineer notifies the chief inspector of the assignment pursuant to clause (a) within 96 hours after the assignment.

8 Dec 2017 cB-5.1 Reg 2 s124.

## PART 10 Additional Requirements for Steam Traction Engine Antique Boilers

## DIVISION 1 Definitions for Part

#### **Definitions for Part**

**125** In this Part:

**"examination"** means an examination for a certificate of qualification mentioned in Division 4 but does not include an ultrasonic examination mentioned in section 127;

"steam traction engine" means historical steam boilers of either riveted or welded construction or both riveted and welded construction and associated equipment that are being preserved, restored, and maintained for demonstration, viewing, or educational purposes, and includes steam tractors, traction engines, hobby steam boilers, portable steam boilers and certain steam locomotive boilers;

"steam traction engine operator's test" means a practical operating and driving test mentioned in section 130.

 $8 \, \mathrm{Dec} \ 2017 \, \mathrm{cB} \text{-} 5.1 \, \mathrm{Reg} \ 2 \, \mathrm{s} 125.$ 

## DIVISION 2 Physical Standards

#### Working pressure

- **126**(1) No person shall operate a steam traction engine at a working pressure greater than 690 kilopascals unless the provisions of subsection (2) have been met.
- (2) An owner of a steam traction engine may apply to the chief inspector for authorization to have the operating pressure raised beyond 690 kilopascals pursuant to section 127.
- (3) An owner of a steam traction engine must notify the chief inspector immediately if the owner becomes aware that a steam traction engine condition does not support a maximum allowable working pressure of 690 kilopascals or the maximum allowable working pressure authorized pursuant to section 127.

 $8 \, \mathrm{Dec} \ 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \ 2 \, \mathrm{s}126.$ 

#### Application for authorization to operate a steam traction engine beyond 690 kPa

- **127**(1) All drawings, calculations, specifications and other information required for the purposes of an application for an operating pressure beyond 690 kilopascals must be submitted in duplicate.
- (2) With respect to an application for authorization to operate a steam traction engine beyond 690 kilopascals, the application must include the results of:
  - (a) a visual internal inspection performed by an inspector;
  - (b) a visual in-service inspection performed by an inspector;

- (c) an initial ultrasonic examination pursuant to the requirements in Part 2, S2.6.2 of the NBBI code and a ultrasonic examination plan accepted by an inspector;
- (d) a maximum allowable working pressure calculation pursuant to the requirements in Part 2, S2.10 of the NBBI code;
- (e) a hydrostatic pressure test witnessed by an inspector pursuant to the requirements in Part 2, S2.6.1 of the NBBI code; and
- (f) any other information or examination that the chief inspector may require.

8 Dec 2017 cB-5.1 Reg 2 s127.

## DIVISION 3 Operation of Steam Traction Engine

#### Inspections

- **128**(1) This section applies to the periodic inspection, as required pursuant to subsection 17(1) of the Act, of a steam traction engine that is in use or operation.
- (2) An inspection of a steam traction engine that operates as described in subsection 126(1) must:
  - (a) include a visual internal inspection, visual in-service inspection and a hydrostatic pressure test to 1 380 kilopascals; and
  - (b) occur at intervals not exceeding 1 year and before the initial operation of the steam traction engine in any calendar year.
- (3) An inspection of a steam traction engine that has at any time operated under an authorization for an operating pressure beyond 690 kilopascals pursuant to section 127 must:
  - (a) follow the subsequent inspection requirements in Part 2, S2.7.3.2 of the NBBI code;
  - (b) include a visual internal inspection at intervals not exceeding 1 year; and
  - (c) occur before the initial operation of the steam traction engine in any calendar year.

8 Dec 2017 cB-5.1 Reg 2 s128.

## Supervision requirements

- **129**(1) No owner of a steam traction engine shall cause or permit the boiler to be operated unless:
  - (a) continuous supervision is provided by a person who holds a valid steam traction engine operator's Class 1 licence; and
  - (b) the owner has designated a person who holds a valid steam traction engine operator's Class 1 licence to:
    - (i) ensure that the log book is updated and maintained in accordance with section 55:

- (ii) notify the owner of the steam traction engine and the chief inspector of any unsafe condition, accident or fire involving the steam traction engine; and
- (iii) meet any additional requirements established by the chief inspector respecting the safe operation of the steam traction engine.
- (2) Other classes of operators mentioned in section 121 are not permitted to operate a steam traction engine.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB} \text{-} 5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s} 129.$ 

#### DIVISION 4

### **Steam Traction Engine Operator Examination and Test Information**

#### Application for steam traction engine operator examination and operator's test

**130**(1) A candidate for a steam traction engine operator examination must:

- (a) apply to the chief inspector in the manner and form specified by the chief inspector;
- (b) hold a steam traction engine operator's class 3 licence; and
- (c) pay the applicable fee.
- (2) A candidate for a steam traction engine operator's test must:
  - (a) apply to the chief inspector in the manner and form specified by the chief inspector;
  - (b) have passed the examination in subsection (1);
  - (c) be 16 years of age or older;
  - (d) meet one of the following requirements:
    - (i) the candidate can provide written verification of 100 hours of operating and maintenance experience with steam traction engines satisfactory to the chief inspector;
    - (ii) the candidate has successfully completed an approved course for steam traction engine operators that includes operating experience; or
    - (iii) the candidate is a Class 2 steam traction engine operator or Class 1 steam traction engine operator applying for renewal of his or her licence; and
  - (e) pay the applicable fee.

 $8 \, \mathrm{Dec} \ 2017 \, \mathrm{cB} \text{-} 5.1 \, \mathrm{Reg} \ 2 \, \mathrm{s} 130.$ 

#### Special examination or test

**131**(1) A candidate for an examination or test who is unable to take the examination or test at a regular sitting or at the place where an examination or test is scheduled to be held may apply to the chief inspector to take the examination or test on a special date or at a special location.

- (2) A candidate who makes an application pursuant to subsection (1) must provide the chief inspector with the candidate's reasons for the application and provide any further information that the chief inspector may request.
- (3) If the chief inspector is satisfied that the candidate's reasons for the application justify the holding of a special examination or test for the candidate, the chief inspector may permit the candidate to take the examination or test at a date or location other than the regular date or location.
- (4) A candidate for whom a special examination or test is arranged pursuant to subsection (3) shall pay the applicable fee pursuant to section 130.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}131.$ 

#### False or misleading statement

- **132**(1) If a false or misleading statement is made in an application for any examination or test or in any reference or other evidence of qualification submitted by or on behalf of a candidate, the chief inspector may deny the application.
- (2) If the discovery of a false or misleading statement described in subsection (1) is made after a certificate of qualification has been issued, the chief inspector may cancel the certificate.

8 Dec 2017 cB-5.1 Reg 2 s132.

#### Conduct of examinations and tests - Division 4

- **133**(1) A steam traction engine operator's examination may be written or oral or both at the discretion of the examining inspector.
- (2) With the approval of the chief inspector or the examining inspector, a candidate for an examination may use the services of an amanuensis, if the amanuensis first executes a statement verified by statutory declaration that he or she has no special knowledge of the subject-matter of the examination.
- (3) A steam traction engine operator's test must be conducted by operating a steam traction engine in accordance with any terms and conditions set out by the chief inspector.

8 Dec 2017 cB-5.1 Reg 2 s133.

#### Misconduct during examination

- **134**(1) Any candidate who, during an examination, refers to material that has not been first approved by the examining inspector may be disqualified from further examinations for a period specified by the chief inspector.
- (2) A certificate of qualification will not be issued to any candidate who removes or copies with intent to remove from the examination room any questions given in the examination.
- (3) If the discovery of any removal or intended removal of questions given in an examination is made after a certificate of qualification is issued, the chief inspector may cancel the certificate.

8 Dec 2017 cB-5.1 Reg 2 s134.

#### Pass mark

- 135(1) The minimum pass mark for a steam traction engine operator examination is 65%.
- (2) The minimum pass requirement for a steam traction operator's test will be determined by the chief inspector.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB} \text{-} 5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s} 135.$ 

#### Waiting period for re-examination

- 136 With respect to a candidate who fails any examination, the candidate must:
  - (a) wait for a period specified by the chief inspector, not exceeding 30 days, before being re-examined or re-tested; or
  - (b) wait for a period specified by the chief inspector, not exceeding 12 months, before being examined or tested for any examination or test if the candidate has consecutively failed the same examination paper or test 3 times.

8 Dec 2017 cB-5.1 Reg 2 s136.

## DIVISION 5 Certificate and Qualification

#### Steam traction engine operator certificate of qualification

- 137 A steam traction engine operator certificate of qualification will be issued to candidates who:
  - (a) pass an examination for the steam traction engine operator certificate;
  - (b) have 100 hours of operating and maintenance experience with steam traction engines satisfactory to the chief inspector; and
  - (c) otherwise complies with the requirements of the Act and these regulations.

8 Dec 2017 cB-5.1 Reg 2 s137.

## DIVISION 6 Steam Traction Engine Operator Licences

#### Classes of steam traction engine operator's licences

- 138 The following classes of steam traction engine operator's licences are established:
  - (a) steam traction engine operator's class 1 licence;
  - (b) steam traction engine operator's class 2 licence;
  - (c) steam traction engine operator's class 3 licence.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}138.$ 

#### Scope of steam traction engine operator's licences

**139**(1) A steam traction engine operator's Class 1 licence entitles the holder to operate a steam traction engine.

- (2) A steam traction engine operator's Class 2 licence entitles the holder to assist with the operation of a steam traction engine under the direct supervision of a steam traction engine operator's Class 1 licence holder.
- (3) A steam traction engine operator's Class 3 licence entitles the holder to assist with the operation of a steam traction engine under the direct supervision of a steam traction engine operator's Class 1 licence holder.

8 Dec 2017 cB-5.1 Reg 2 s139.

#### Application for steam traction engine operator's licence

- **140**(1) The holder of a steam traction engine operator's certificate of qualification is entitled to apply for a steam traction engine operator's licence of a class that corresponds to:
  - (a) the class of certificate of qualification of the holder; and
  - (b) a practical examination certificate.
- (2) The chief inspector may issue a steam traction engine operator's Class 1 licence to an applicant who:
  - (a) holds a steam traction engine operator's certificate of qualification;
  - (b) passes a steam traction engine operator's test; and
  - (c) pays the applicable fee.
- (3) The chief inspector may issue a steam traction engine operator's Class 2 licence to an applicant who:
  - (a) holds a steam traction engine operator's certificate of qualification;
  - (b) has been the holder of a steam traction engine operator's Class 1 licence;
  - (c) has not met the requirements of subsection (6); and
  - (d) pays the applicable fee.
- (4) The chief inspector may issue a steam traction engine operator's Class 3 licence to an applicant who:
  - (a) has successfully completed an approved course for steam traction engine operators; and
  - (b) pays the applicable fee.
- (5) A steam engine operator's licence issued pursuant to this section is valid for a period of 2 years from the date of issue.
- (6) The expiry date of a steam traction engine operator's licence may be extended by 2-year periods to a maximum of 6 years if:
  - (a) the holder of the licence maintains a continuity log acceptable to the chief inspector; and
  - (b) pays the applicable fee.

 $8 \, \mathrm{Dec} \ 2017 \, \mathrm{c} \, \mathrm{B}\text{-}5.1 \, \mathrm{Reg} \ 2 \, \mathrm{s}140.$ 

## PART 11 Pressure Welders

## DIVISION 1 **Definition for Part**

#### **Definition for Part**

141 In this Part, "test" means a pressure welder's qualification test mentioned in Division 2.

8 Dec 2017 cB-5.1 Reg 2 s141.

## DIVISION 2 **Test Information**

#### Eligibility to take test

- **142**(1) A person is eligible to take an initial pressure welder's qualification test if the person:
  - (a) possesses a journeyperson's certificate in the welder trade issued pursuant to *The Apprenticeship and Trade Certification Act, 1999* or an equivalent certificate pursuant to any predecessor Act respecting apprenticeship;
  - (b) has at least 3 years' experience of welder verified by letters, affidavits or other documents acceptable to an inspector; or
  - (c) holds a valid pressure welder's certificate issued by the boiler and pressure vessel authority of another province or territory of Canada, or has held a pressure welder's certificate, issued by the boiler and pressure vessel authority of another province or territory of Canada, that has now expired.
- (2) A person is eligible to take a subsequent pressure welder's qualification test if the person holds a valid pressure welder's licence issued pursuant to section 152 or 153 or has held a pressure welder's licence, issued pursuant to section 152 or 153, that has now expired.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}142.$ 

#### Standards for test

- 143(1) Except as otherwise provided in these regulations, a pressure welder's qualification test must be conducted in accordance with the applicable code specified in clause 4(3)(h).
- (2) An initial pressure welder's qualification test must be conducted within the parameters established by the chief inspector to evaluate the welder's skill with the welding process, base materials, base material diameters, filler materials, thickness, welding positions, welding progression, backing and backing gas requirements and any other parameter the chief inspector considers relevant.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{c} \, \mathrm{B}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}143.$ 

#### Application to take test administered by inspector

- 144 A person who wishes to take a pressure welder's qualification test administered by an inspector must:
  - (a) apply to an inspector;
  - (b) provide evidence satisfactory to the inspector that the person meets the requirements set out in section 142; and
  - (c) pay the applicable fee.

8 Dec 2017 cB-5.1 Reg 2 s144.

#### Designation of authorized contractor

- 145(1) A holder of a contractor's licence who employs those qualified to pressure weld may apply in writing to the chief inspector for designation as an authorized contractor with authority to administer pressure welder's qualification tests to employees of the holder who meet the requirements set out in subsection 146(1).
- (2) An application for designation must include:
  - (a) a detailed description of testing procedures that the applicant proposes to use: and
  - (b) the format of a record of pressure welder's qualification tests that the applicant proposes to provide to persons who are tested by the applicant.
- (3) If the chief inspector is satisfied that an applicant for designation meets the requirements of this section, the chief inspector may designate the applicant as an authorized contractor and may set out any terms and conditions in the designation that the chief inspector considers appropriate.

8 Dec 2017 cB-5.1 Reg 2 s145.

#### Test conducted by authorized contractor

- **146**(1) An authorized contractor may, in accordance with any terms and conditions set out in the designation, administer a pressure welder's qualification test to an employee who holds a pressure welder's licence that:
  - (a) is about to expire or has expired; or
  - (b) confers inadequate authority for the scope of welding to be performed by reason of limitations on the welding variables specified in the licence.
- (2) A pressure welder's qualification test administered by an authorized contractor must be performed in strict accordance with a welding procedure registered pursuant to section 29.
- (3) An authorized contractor who tests an employee must provide to that employee a record of the pressure welder's qualification test results certified by the authorized contractor or the authorized contractor's designated representative.

8 Dec 2017 cB-5.1 Reg 2 s146.

#### Special test

- **147**(1) A candidate for a test who is unable to take the test at a regular sitting or at the place where a test is scheduled to be held may apply to the chief inspector to take the test on a special date or at a special location.
- (2) A candidate who makes an application pursuant to subsection (1) must provide the chief inspector with the candidate's reasons for the application and provide any further information that the chief inspector may request.
- (3) If the chief inspector is satisfied that the candidate's reasons for the application justify the holding of a special test for the candidate, the chief inspector may permit the candidate to take the test at a date or location other than the regular date or location.
- (4) A candidate for whom a special test is arranged pursuant to subsection (3) shall pay the applicable fee pursuant to clause 144(c).

 $8 \; \mathrm{Dec} \; 2017 \; \mathrm{c} \, \mathrm{B}\text{-}5.1 \; \mathrm{Reg} \; 2 \; \mathrm{s}147.$ 

#### False or misleading statement

- **148**(1) If a false or misleading statement is made in an application for any test or in any reference or other evidence of qualification submitted by or on behalf of a candidate, the chief inspector may deny the application.
- (2) If the discovery of a false or misleading statement described in subsection (1) is made after a certificate of qualification has been issued, the chief inspector may cancel the certificate.

8 Dec 2017 cB-5.1 Reg 2 s148.

#### Pass mark

149 The minimum pass requirement for a pressure welder's qualification test will be determined by the chief inspector.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{cB} \text{-} 5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s} 149.$ 

#### Waiting period for test

150 A person who fails an initial pressure welder's qualification test on the first attempt is not eligible to make a second attempt until at least 30 days after the day of his or her first attempt.

 $8 \ {\rm Dec} \ 2017 \ {\rm cB}\text{-}5.1 \ {\rm Reg} \ 2 \ {\rm s}150.$ 

### DIVISION 3 Licences

#### Classes of pressure welder's licences

- **151**(1) The following classes of pressure welder's licences are established:
  - (a) Class M manual welding not belonging to Class B;
  - (b) Class SM semi-automatic/machine welding not belonging to class SB or Class PF;

- (c) Class B brazing;
- (d) Class SB semi-automatic/machine brazing;
- (e) Class PF plastic fusing.
- (2) A Class M or Class B pressure welder's licence authorizes the holder to weld on boilers, pressure vessels, pressure piping systems and refrigeration plants using a manual welding process specified in the licence and subject to any limitations with respect to welding variables that are specified in the licence.
- (3) A Class SM, Class SB or Class PF pressure welder's licence authorizes the holder to weld on boilers, pressure vessels, pressure piping systems and refrigeration plants using a semi-automatic or machine welding process specified in the licence and subject to any limitations with respect to welding variables that are specified in the licence.

8 Dec 2017 cB-5.1 Reg 2 s151.

#### Issuance of pressure welder's licences based on test

- **152**(1) The chief inspector may issue a pressure welder's licence of the appropriate class to a person who passes a pressure welder's qualification test.
- (2) If a pressure welder's qualification test is administered to a person by an inspector pursuant to section 144, the fee for taking the test includes the issuance of a licence of the appropriate class if the person passes the test.
- (3) If a pressure welder's qualification test is administered to a person by an authorized contractor pursuant to section 146, a person who satisfactorily passes the test may apply in writing to the chief inspector for a licence of the appropriate class and must:
  - (a) submit the record of the welder's qualification test issued to the person by the authorized contractor who administered the test; and
  - (b) pay the applicable fee.
- (4) A pressure welder's licence issued pursuant to this section expires 2 years after the date of issue.
- (5) The expiry date of a pressure welder's licence may be extended by 6-month periods if:
  - (a) the holder of the licence is an employee of or employed by an authorized contractor;
  - (b) the authorized contractor conducted the employee's qualification test and the authorized contractor maintains performance qualification records in accordance with the applicable code specified in clause 4(3)(h);
  - (c) the employee is continuously employed by the authorized contractor since the original qualification test;
  - (d) the authorized contractor's examiner makes qualification entries on a continuity log acceptable to the chief inspector;

- (e) the authorized contractor demonstrates to the satisfaction of an inspector that this subsection is complied with, in accordance with the authorized contractor's quality control program; and
- (f) the authorized contractor applies in writing to the chief inspector for an extension to the licence.

8 Dec 2017 cB-5.1 Reg 2 s152.

#### Issuance of pressure welder's licence without test

- **153**(1) The chief inspector may issue a pressure welder's licence of the appropriate class without testing to a person who:
  - (a) has passed a test in another province or territory of Canada that, in the opinion of the chief inspector, is equivalent to a pressure welder's qualification test administered pursuant to Division 2;
  - (b) holds a valid licence or equivalent authorization that:
    - (i) was issued by the boiler and pressure vessel authority of another province or territory of Canada; and
    - (ii) bears an expiry date that is at least 3 months later than the date of the applicant's application; and
  - (c) applies to the chief inspector in the manner and form specified by the chief inspector and submits with the application:
    - (i) the applicable fee; and
    - (ii) a copy of the pressure welder's certificate, licence, equivalent authorization or other documents issued by the other province or territory as evidence that the applicant has met the requirements set out in clauses (a) and (b).
- (2) A licence issued to a person pursuant to this section expires on the date of expiry of the licence or equivalent authorization issued by the other province or territory to the person subject to the following limits:
  - (a) the validity of the licence is not to exceed 2 years from the date of the qualification test;
  - (b) the validity of the licence is not to exceed the licence extension issued by the province or territory following a continuity log acceptable to the chief inspector.

8 Dec 2017 cB-5.1 Reg 2 s153.

### Limitations in pressure welder's licence

154 The chief inspector may specify in a licence issued pursuant to section 152 or 153 the processes that the holder is qualified to carry out and any limitations with respect to welding variables that the chief inspector considers appropriate.

8 Dec 2017 cB-5.1 Reg 2 s154.

#### BOILER AND PRESSURE VESSEL, 2017

#### PART 12

## Anhydrous Ammonia Storage and Distribution Plants

#### **Definitions for Part**

**155** In this Part:

- (a) "licence to operate" means a licence to operate an anhydrous ammonia storage and distribution plant issued pursuant to section 162;
- (b) "permit" means a permit to construct an anhydrous ammonia storage and distribution plant issued pursuant to section 160;
- (c) "storage vessel" means a pressure vessel used or intended to be used for the storage of anhydrous ammonia.

8 Dec 2017 cB-5.1 Reg 2 s155.

#### Application of codes, standards

- **156**(1) Except as otherwise provided in these regulations, the requirements set out in the applicable code specified in clause 4(1)(c) apply to the design, construction, installation and operation of anhydrous ammonia storage and distribution plants.
- (2) The requirements set out in Part 1 and the applicable codes and standards apply to any pressure vessels, pressure piping and fittings used in an anhydrous ammonia storage and distribution plant to the extent that they deal with matters not covered by the standard mentioned in subsection (1).

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{c} \, \mathrm{B}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}156.$ 

#### Prohibition

157 No person shall install a storage vessel underground.

8 Dec 2017 cB-5.1 Reg 2 s157.

#### Location of storage vessels

- **158**(1) A storage vessel with a capacity of more than 10 000 litres, or a combination of storage vessels with an aggregate capacity of more than 10 000 litres, must not be located within the boundaries of:
  - (a) a city, town, village or resort village;
  - (b) the portion of the City of Lloyd minster that lies within Saskatchewan; or
  - (c) a town, northern village or northern hamlet as defined in *The Northern Municipalities Act*.
- (2) If a storage vessel with a capacity of more than 10 000 litres but not more than 350 000 litres, or a combination of storage vessels with an aggregate capacity of more than 10 000 litres but not more than 350 000 litres, is to be located outside the boundaries of a municipality mentioned in subsection (1) or an evacuation-sensitive facility, the storage vessel or combination of storage vessels must be located at least 1.5 kilometres away from any point on the boundaries of the municipality or evacuation-sensitive facility.
- (3) If a storage vessel with a capacity of more than 350 000 litres, or a combination of storage vessels with an aggregate capacity of more than 350 000 litres, is to be located outside the boundaries of a municipality mentioned in subsection (1) or an evacuation-sensitive facility, the storage vessel or combination of storage vessels must be located at least 2 kilometres away from any point on the boundaries of the municipality or evacuation-sensitive facility.

- (4) A storage vessel, or a combination of storage vessels, must not be located closer to a railway track than the appropriate minimum distance set out in Table 1.
- (5) A storage vessel or a combination of storage vessels, must be located at least 500 metres away from a building, other than a building that forms part of an anhydrous ammonia storage and distribution plant.
- (6) A storage vessel or combination of storage vessels, must be located at least 100 metres away from an environmentally-sensitive area.
- (7) For the purposes of this section, the distance from a storage vessel or combination of storage vessels to any other structure or location is to be determined by measuring from the nearest point of the storage vessel or combination of storage vessels to the nearest point of the structure or location.
- (8) If an existing storage vessel, or combination of storage vessels, is not located in accordance with subsections (2) to (7) the chief inspector may require additional safety measures to be taken.
- (9) The site on which a storage vessel or combination of storage vessels and associated apparatus is installed must be:
  - (a) protected by a chain link or equivalent fence that is at least 2 metres high; and
  - (b) posted with a sign stating "Caution Ammonia" in block letters that are at least 10 centimetres high in a contrasting colour on a white background.

8 Dec 2017 cB-5.1 Reg 2 s158.

### Contractor's licence

159 No person shall engage in the business of constructing, installing, altering or repairing anhydrous ammonia storage and distribution plants unless the person holds a valid contractor's licence.

8 Dec 2017 cB-5.1 Reg 2 s159.

### Permit to construct

- **160**(1) No person shall begin construction of an anhydrous ammonia storage and distribution plant unless a permit authorizing that construction has been issued to the owner of the proposed plant.
- (2) An application for a permit must be submitted to the chief inspector in the manner and form specified by the chief inspector and must be accompanied by:
  - (a) 2 copies of drawings of the proposed plant, including plans and profiles, that meet the requirements of subsection (3); and
  - (b) the applicable fee.
- (3) The drawings to be submitted with an application for a permit:
  - (a) must set out the name of the applicant;
  - (b) must show the location of each storage vessel to be installed;

#### B-5.1 REG 2

- (c) if any building other than a building that is to form part of the plant, any place of public assembly or any residential area is located within 800 metres of the proposed location of the storage vessel or combination of storage vessels, must show the distances between the storage vessel or combination of storage vessels and that building, place of public assembly or residential area;
- (d) must show the location of any environmentally-sensitive areas that are located within 200 metres of the proposed location of the installation site;
- (e) must show the distances between each storage vessel and each other storage vessel and structure on the site;
- (f) must show the location of railway rights of way, property lines, fences, dikes, pipelines under roadways or railways, sewers, ditches, watercourses, roads and other similar facilities that are on or give access to the installation site; and
- (g) must include in "Notes" or a "Legend":
  - (i) a statement that all designs of storage vessels that form part of the proposed plant meet the requirements of these regulations;
  - (ii) the size and storage capacity of all storage vessels that form part of the proposed plant;
  - (iii) a description of the type of motive power to be used for pumps or compressors; and
  - (iv) if the proposed plant will be served by rail, a statement as to whether the track or tracks are privately owned or owned by a railway company.
- (4) The chief inspector may issue a permit if the chief inspector is satisfied that the design of the proposed plant meets the requirements of the Act and these regulations.
- (5) A permit is valid for a period of 1 year from the date of issue.
- (6) If construction on an anhydrous ammonia storage and distribution plant is not commenced before the expiry of the permit, no person shall begin construction unless an extension of the permit is obtained.
- (7) An application for an extension of a permit must be submitted to the chief inspector in the manner and form specified by the chief inspector and must be accompanied by the applicable fee.
- (8) The issuance of a permit does not relieve the holder of the permit from compliance with any requirement of any other Act or regulation or any relevant municipal bylaw.

8 Dec 2017 cB-5.1 Reg 2 s160.

#### Acceptance inspection

- **161**(1) No person shall put into operation any anhydrous ammonia storage and distribution plant until the plant has passed an acceptance inspection conducted by an inspector.
- (2) The holder of a contractor's licence shall pay the applicable fee to cover the cost of the acceptance inspection.

(3) If the inspector who conducts an acceptance inspection is satisfied that the plant meets the requirements of this Part, the inspector may make a notation to that effect on the permit.

8 Dec 2017 cB-5.1 Reg 2 s161.

#### Licence to operate

- **162**(1) No person shall put an anhydrous ammonia storage and distribution plant into operation unless the person holds a valid licence to operate of the class appropriate for the storage capacity of the plant.
- (2) The following classes of licences to operate are established:
  - (a) class 1, authorizing the operation of a plant with a storage capacity of not more than 90 900 litres:
  - (b) class 2, authorizing the operation of a plant with a storage capacity of more than 90 900 litres but not more than 181 800 litres;
  - (c) class 3, authorizing the operation of a plant with a storage capacity of more than 181 800 litres but not more than 454 600 litres;
  - (d) class 4, authorizing the operation of a plant with a storage capacity of more than 454 600 litres.
- (3) An applicant for a licence to operate must specify the class of licence sought and request a term of either 1 year or 5 years.
- (4) An application for a licence to operate is subject to the applicable fees.
- (5) The chief inspector may issue a licence to operate if the chief inspector is satisfied, on the basis of an acceptance inspection, that the anhydrous ammonia storage and distribution plant has been constructed in accordance with the Act and these regulations.
- (6) A licence to operate is valid for a period of up to 5 years, as set out in the licence, from the date of issue

8 Dec 2017 cB-5.1 Reg 2 s162.

## PART 13 Transitional, Repeal and Coming into Force

#### Transitional

163(1) In this section:

"existing certificate" means a certificate issued pursuant to the former regulations that is in existence on the day before the coming into force of these regulations;

"existing licence" means a licence issued pursuant to the former regulations that is in existence on the day before the coming into force of these regulations;

"existing permit" means a permit issued pursuant to the former regulations that is in existence on the day before the coming into force of these regulations;

"former regulations" means The Boiler and Pressure Vessel Regulations.

(2) Every existing certificate, existing licence, or existing permit is continued pursuant to these regulations and may be dealt with pursuant to these regulations as if it were issued pursuant to these regulations.

 $8 \, \mathrm{Dec} \, 2017 \, \mathrm{c} \, \mathrm{B}\text{-}5.1 \, \mathrm{Reg} \, 2 \, \mathrm{s}163.$ 

#### RRS c B-5.1 Reg 1 repealed

164 The Boiler and Pressure Vessel Regulations are repealed.

8 Dec 2017 cB-5.1 Reg 2 s164.

#### Coming into force

- **165**(1) Subject to subsection (2), these regulations come into force on January 1, 2018.
- (2) If these regulations are filed with the Registrar of Regulations after January 1, 2018, these regulations come into force on the day on which they are filed with the Registrar of Regulations.

8 Dec 2017 cB-5.1 Reg 2 s165.

### **Appendix**

## TABLE 1 [Subsection 158(4)]

## Minimum Distance Between Storage Tanks and Railway Tracks

Water Capacity of Tank or Combination of Tanks at 16°C (Litres)	Minimum Distance from Tank (Metres)
9 465 or less	6
more than 9 465 but not more than 45 425	15
more than 45 425	23

8 Dec 2017 cB-5.1 Reg 2.