



DRAFT

R.R.S. c.B-5.1 Reg 1

**SCHEDULE**

**PART I  
Preliminary Matters**

**Title**

1 These regulations may be cited as *The Boiler and Pressure Vessel Regulations*.

**Interpretation**

2(1) In these regulations:

- (a) **“acceptance inspection”** means an inspection conducted after the installation or repair of a boiler, pressure vessel or refrigeration plant and before it is put, or put back, into service;
- (b) **“Act”** means *The Boiler and Pressure Vessel Act, 1999*;
- (c) **“adopted code or standard”** means a code or standard adopted pursuant to section 10;
- (d) **“anhydrous ammonia”** means the product with the chemical formula  $\text{NH}_3$ , 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;
- (e) **“ANSI”** means the American National Standards Institute, Inc.;
- (f) **“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;
- (g) **“approved”** means approved by the chief inspector, unless otherwise stated;
- (h) **“ASME”** means the American Society of Mechanical Engineers;
- (i) **“ASME code”** means the edition of the American Society of Mechanical Engineers standard *ASME Boiler and Pressure Code* that is adopted pursuant to subsection 10(2);
- (j) **“authorized contractor”** means a holder of a contractor’s licence who is designated pursuant to section 113 as having authority to administer pressure welders’ qualification tests to employees of the holder;

- (k) **“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;
- (l) **“boiler plant”** means a plant that comprises an installation of two or more high pressure boilers, low pressure boilers or a combination of high pressure and low pressure boilers;
- (m) **“chief engineer”** means the person who is responsible for the operation of a boiler or boiler plant;
- (n) **“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;
- (o) **“contractor’s licence”** means a licence issued pursuant to section 30;
- (p) **“CSA”** means the Canadian Standards Association;
- (q) **“CSA B51 code”** means the Canadian Standards Association standard B51-03 *Boiler, Pressure Vessel, and Pressure Piping Code* adopted pursuant to clause 10(1)(a);
- (r) **“CSA B52 code”** means the Canadian Standards Association standard B52-05 *Mechanical Refrigeration Code* adopted pursuant to clause 10(1)(b);
- (s) **“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;
- (t) **“high pressure boiler plant”** means:
- (i) a plant comprising two or more high pressure boilers; or
  - (ii) a plant comprising a combination of high pressure boilers and low pressure boilers that is deemed to be a high pressure boiler plant pursuant to clause 8(2)(a);
- (u) **“inspection certificate”** means a valid inspection certificate:
- (i) issued by an inspector pursuant to section 21 of the Act; or
  - (ii) issued by a licensed pressure equipment inspector pursuant to section 64, in accordance with the terms and conditions of an approved quality management system;
- (v) **“liquefied 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;
- (w) **“low pressure boiler plant”** means:
- (i) a plant comprising two or more low pressure boilers; or
  - (ii) a plant comprising a combination of high pressure boilers and low pressure boilers that is deemed to be a low pressure boiler plant pursuant to clause 8(3)(a);

- (x) **“multiple”** means, in relation to a pressure vessel, the product of the outside diameter or width, measured in metres, and the overall length, measured in metres;
- (y) **“NBBI”** means The National Board of Boiler and Pressure Vessel Inspectors (United States);
- (z) **“NBBI code”** means The National Board of Boiler and Pressure Vessel Inspectors (United States) standard ANSI/NB-23 *National Board Inspection Code* adopted pursuant to clause 10(1)(e);
- (aa) **“NFPA”** means the National Fire Protection Association, Inc. (United States);
- (bb) **“pressure equipment inspector”** means a person who conducts an inspection on behalf of an insurer or in connection with a quality management system;
- (cc) **“pressure equipment inspector’s licence”** means a licence issued pursuant to section 89;
- (dd) **“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.

### Exemptions from Act

3(1) 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 traps;

- (vi) indirect fired heater coils;
  - (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 installed in a private residence designed to accommodate not more than three families.
- (2) 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.

### Capacity of boilers

4(1) For the purposes of the Act and these regulations, the capacity of a boiler is its capacity determined in accordance with this section.

(2) Subject to subsection (4), the capacity in kilowatts of any boiler other than an electric boiler is the value C calculated in accordance with the following formula:

$$C = A \times 10.8$$

where A is the area of the heating surface in square metres, determined in accordance with section 5.

(3) Subject to subsection (4), the capacity in kilowatts of an electric boiler is the capacity in kilowatts of the heating element.

(4) Where 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 in kilowatts of the boiler is the value C calculated in accordance with the following formula:

$$C = \frac{I}{5\,400}$$

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

**Area of boiler heating surfaces**

- 5(1) For the purposes of section 4, the area of the heating surface of a boiler is to be determined in accordance with this section.
- (2) Where 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) Where a portion of the heating surface of a boiler is outside of the furnace, the area of the heating surface outside of the furnace is to be measured circumferentially (circumference times length) and is to include the area of any extended surface.
- (4) Subject to subsections (5) to (7), the area of waterwall heating surface within the furnace is to be measured as the projected tube area (diameter times length) and is to include any extended surface on the furnace side.
- (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.

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

- 6(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.

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

- 7 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.

**Plants comprising high and low pressure boilers**

- 8(1) In this section, “**mixed boiler plant**” means a boiler plant comprising a combination of 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 6.

(3) If the capacity of a mixed boiler plant determined pursuant to clause (2)(b) would result in a lower level of operator's licence being required pursuant to section 44 than if the capacity of the mixed plant was 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.

### Capacity of refrigeration plants

9(1) Subject to subsection (2), the capacity of a refrigeration plant is the manufacturer's standard rating in tonnes of refrigeration.

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

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

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

## PART II

### Design, Construction, Installation, Alteration and Repair

#### DIVISION 1

#### Physical Standards

### Adoption of codes and standards

10(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) Canadian Standards Association standard B51-03 *Boiler, Pressure Vessel, and Pressure Piping Code*;

(b) Canadian Standards Association standard B52-05, *Mechanical Refrigeration Code*;

(c) American National Standards Institute, Inc. standard ANSI K-61.1-1999/ CGA G-2.1 *Safety Requirements for the Storage and Handling of Anhydrous Ammonia*;

(d) National Fire Protection Association, Inc. (United States) standard NFPA 58 *Liquefied Petroleum Gas Code* 2001 edition;

(e) The National Board of Boiler and Pressure Vessel Inspectors (United States) standard ANSI/NB-23 *National Board Inspection Code* 2004 edition;

(f) Canadian Standards Association standard CAN/CSA-B149.2-00 *Propane Handling and Storage Code*.

(2) The following provisions of the American Society of Mechanical Engineers standard *ASME Boiler and Pressure Code* 2004 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 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*;

(f) Section IX *Qualification Standard for Welding and Brazing Procedures, Welders, Brazers, and Welding and Brazing Operators*;

(g) Section X *Fiber-reinforced Plastic Pressure Vessels*.

(3) 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) the American Society of Mechanical Engineers standard *Power Piping* ASME B31.1-2004;

(b) the American Society of Mechanical Engineers standard *Process Piping* ASME B31.3-2004;

(c) the American Society of Mechanical Engineers standard *Refrigeration Piping and Heat Transfer Components* ASME B31.5-2001.

(4) If a code or standard adopted pursuant to subsection (1), (2) or (3) requires anything to be done in accordance with provisions of another published code or standard, those provisions of the other code or standard are deemed to be part of the code or standard adopted pursuant to subsection (1), (2) or (3), as the case may be.

(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.

### **Compliance with adopted codes and standards**

**11(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 10, the person is deemed to have complied with the adopted code or standard.

(3) If a code or standard adopted pursuant to subsection 10(1), (2) or (3) requires anything to be done in accordance with provisions of another published code or standard, subsection (2) applies, with any necessary modification, to the provisions of the other code or standard that are deemed by subsection 10(4) to be part of the adopted code or standard.

### **Quality control program required**

**12(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 28; 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 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*.

### **Welding procedures required**

**13(1)** A person who intends to construct, alter or repair any boiler, pressure vessel, fitting or pressure piping system by welding:

(a) subject to subsection (2), must develop, and qualify by testing, welding procedures in accordance with Section IX of the ASME code;

(b) must not commence the construction, alteration or repair unless the welding procedures have been registered pursuant to section 27; and

(c) must carry out the welded construction, alteration or repair in accordance with the registered welding procedures.

(2) A person mentioned in subsection (1) may adopt any of the ANSI/AWS Standard Welding procedures set out in Appendix A of the NBBI code, but must submit those procedures for registration pursuant to section 27.

### **Requirements for boilers**

**14(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 clause 6 of Part 1 of the CSA B51 code.

(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) where 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) where heat input is greater than 422 megajoules per hour, the boiler must be equipped with a low water fuel cut-off device.

### **Requirements for pressure vessels**

**15(1)** In this section, “**Zick formula**” means the method developed by L.P. Zick for determining stresses in large horizontal cylinder pressure vessels on two saddle supports, published in *Pressure Vessels and Piping Design Analysis, Volume 2, Components of Structural Dynamics*, © ASME 1972.

(2) Subject to subsection (3) and except as otherwise provided by these regulations, pressure vessels are to be designed, constructed, installed and fitted with protective devices in accordance with clause 7 of Part 1 of the CSA B51 code.

(3) A pressure vessel exceeding 37 730 litres in capacity that is installed in the horizontal position on two saddle supports must be analysed using the Zick formula to verify the adequacy of the saddle support design.

### **Additional requirements - pressure vessels for compressed gases**

**16(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 17(2) or 18(2) or section 19, 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.

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

**17(1)** Subject to subsections (2) to (4), pressure vessels that are to be used in the handling and storage of liquified petroleum gas must be designed, constructed, installed and repaired in accordance with Section VIII *Rules for Construction of Pressure Vessels* Division 1 of the ASME code.

(2) Pressure vessels that are to be used in the handling and storage of liquified petroleum gas must be designed for a pressure of not less than 1 725 kilopascals.

(3) 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 Canadian Standards Association standard CAN/CSA-B149.2-00 *Propane Handling and Storage Code*.

(4) 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 in accordance with the National Fire Protection Association, Inc. (United States) standard NFPA 58 *Liquified Petroleum Gas Code* 2001 edition.

#### **Additional requirements - pressure vessels for anhydrous ammonia**

**18(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 CSA B51 code and the American National Standards Institute, Inc. standard ANSI K-61.1-1999/CGA G-2.1 *Safety Requirements for the Storage and Handling of Anhydrous Ammonia*.

(2) Pressure vessels used for the storage of anhydrous ammonia must be designed for a pressure of not less than 1 725 kilopascals.

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

**19** 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.

**Requirements for pressure piping**

20(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 CSA B51 code and the CSA B52 code; 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 American Society of Mechanical Engineers standard *Power Piping* ASME B31.1-2004;
  - (ii) the American Society of Mechanical Engineers standard *Process Piping* ASME B31.3-2004;
  - (iii) the American Society of Mechanical Engineers standard *Refrigeration Piping and Heat Transfer Components* ASME B31.5-2001.

(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 American Society of Mechanical Engineers standard *Process Piping* ASME B31.3-2004.

**Additional requirements for guarded plants**

21(1) Each boiler in a guarded plant must be equipped with:

- (a) an alarm system that, if an abnormal condition occurs while the boiler is in operation:
  - (i) will audibly and visually warn the power engineer in charge or any other person who is in the vicinity of the boiler;
  - (ii) will initiate an alarm signal to a monitoring system that is continuously attended or electronically monitored; and
  - (iii) cannot be shut off until the abnormal condition is rectified or the boiler is shut down;
- (b) an automatic control system that will safely operate the boiler while the power engineer in charge leaves the controls; and
- (c) any other devices that the chief inspector may specify.

(2) Each steam boiler in a guarded plant must be equipped with:

- (a) a high pressure tripping device that will:
  - (i) automatically stop and prevent the supply of fuel to the boiler if the boiler pressure reaches the maximum allowable working pressure or exceeds an established high pressure limit specified by the manufacturer, whichever is the lower pressure; and
  - (ii) prevent the boiler from automatically restarting;

(b) a low water level tripping device, separate from any other device that controls the water level in the boiler during normal operation under automatic control, that will:

(i) automatically stop and prevent the supply of fuel to the boiler if the water in the boiler falls below a safe operating level specified by the manufacturer; and

(ii) prevent the boiler from automatically restarting;

(c) a high water level tripping device, separate from any other device that controls the water level of the boiler during normal operation under automatic control, that will:

(i) automatically stop and prevent the supply of fuel to the boiler if the water in the boiler exceeds a safe operating level specified by the manufacturer; and

(ii) prevent the boiler from automatically restarting;

(d) a device that, each time the boiler is put in use, will adequately purge the furnace chamber of combustible materials so as to ensure safe ignition; and

(e) a flame failure tripping device that will:

(i) detect a flame failure;

(ii) automatically stop and prevent the supply of fuel to the boiler if a flame failure occurs; and

(iii) prevent the boiler from automatically restarting.

(3) Each hot water boiler in a guarded plant must be equipped with:

(a) a high water temperature tripping device that will:

(i) automatically stop and prevent the supply of fuel to the boiler if the water in the boiler exceeds the safe operating temperature specified by the manufacturer; and

(ii) prevent the boiler from automatically restarting; and

(b) each of the devices described in clauses (2)(b), (d) and (e).

## DIVISION 2

### **Registration of Designs, Welding Procedures, Quality Control Program Manuals**

#### **Application for registration of designs**

**22(1)** In this section and section 23, “**application for registration**” means an application for the registration of a design required pursuant to section 11 of the Act.

(2) An application for registration must be made before commencing construction, installation, alteration or repair, as the case may be.

(3) All drawings, calculations, specifications and other information required for the purposes of an

application for registration must be submitted in duplicate.

(4) 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 ASME code under 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.

(5) 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 must include:
  - (i) flow or line diagrams showing the general arrangement of all boilers, pressure vessels, pressure piping systems and fittings;
  - (ii) pipeline identification lists showing the maximum pressures and temperatures for each pressure piping system;
  - (iii) a list of pressure relief devices to be used in the pressure piping system, including their capacities and their set pressures;
  - (iv) the material specifications, sizes, schedule and primary service ratings of all pressure piping and fittings; and
  - (v) a detailed description of the test procedure for the pressure piping, including the type, method, test media, test pressure, test temperature, duration and safety precautions; and

- (b) the drawings submitted for registration must be stamped and signed by a professional engineer, as defined in *The Engineering and Geoscience Professions Act*, who holds a valid licence pursuant to that Act.

(6) 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, on a form supplied by the department, respecting compliance with:

- (i) standards specified in the declaration that are applicable to the fitting; and
  - (ii) the quality control program required by the CSA B51 code; and
- (b) supporting documents that set out all information required by clause 4.2 of the CSA B51 code.

**Fees - registration of designs**

- 23(1)** The fees payable with respect to an application for registration of the design of a boiler are set out in Table 1.
- (2) The fees payable with respect to an application for registration of the design of a pressure vessel other than a heat exchanger are set out in Table 2.
- (3) The fees payable with respect to an application for registration of the design of a heat exchanger are set out in Table 3.
- (4) The fees payable with respect to an application for registration of the design of a fitting are set out in Table 4.
- (5) The fee payable with respect to an application for registration of the design of a pressure piping system is \$120.
- (6) 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.

**Exemptions from registration requirement - boilers, pressure vessels**

- 24(1)** Subject to subsection (3), 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 ASME code;
    - (ii) stamped in accordance with the ASME code with the applicable code symbol stamp; 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 subsection (3), 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 the CSA B51 code;

(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 code; 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 fee for the registration of a data report is \$60.

#### **Exemptions from registration requirement - fittings**

**25(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.

(2) Category A, B, C and G fittings, as set out in Table 1 of the CSA B51 code, are not required to be registered pursuant to subsection 11(1) of the Act.

#### **Exemptions from registration requirement - pressure piping systems**

**26** 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.

#### **Registration of welding procedures**

**27(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 13 by submitting two copies of the procedures to the chief inspector, together with a fee of \$40.

(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 Section IX of the ASME code.

- (3) If a welding procedure is accepted for registration, a copy of the procedure bearing the registration number will be returned to the person who submitted it for registration.
- (4) The chief inspector may accept for registration without review any of the ANSI/AWS Standard Welding procedures set out in Appendix A of the NBBI code.
- (5) A person mentioned in subsection (1) must:
- (a) ensure that copies of a registered welding procedure 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.
- (6) If a person mentioned in subsection (1) wishes to make a change in a registered welding procedure, the person must submit two copies of the proposed amendment to the chief inspector for registration in accordance with this section, together with a fee of \$20.

**Registration of quality control program manual**

- 28(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 12 by submitting two copies of the manual to the chief inspector, together with a fee of \$185.
- (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 a fee of \$40 per hour or part of an hour for an audit conducted on a weekday or \$80 per hour or part of an hour for an audit conducted on a Saturday, Sunday or holiday, subject to a minimum of four hours, plus all reasonable travel, meal and accommodation expenses incurred by the inspector.
- (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) expires three years after the date of issue.
- (6) 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:
- (a) must submit a copy of the proposed amendment to the manual to an inspector for review, together with a fee of \$45; and
  - (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.

### **Audit**

- 29**(1) A departmental inspector may, from time to time, 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 a fee in an amount determined in accordance with subsection 28(3).

## **DIVISION 3**

### **Authority to Construct, Install, etc.**

#### **Contractor's licence**

- 30**(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:
- (a) must set out the scope of the work that the applicant intends to engage in;
  - (b) must be made on a form supplied by the department; and
  - (c) must be accompanied by a fee of \$130.
- (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) expires one year after the date of issue.

(5) A person who holds a valid contractor's licence issued pursuant to *The Gas Licensing Act* and who is authorized by that licence to install low pressure boilers is deemed to hold a contractor's licence pursuant to this section with respect to the installation of low pressure boilers with thermal inputs that are within the limits of the authority conferred by the licence issued pursuant to *The Gas Licensing Act*.

### **Inspections - construction**

**31**(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 CSA B51 code or CSA B52 code, as the case may be.

(2) A contractor shall pay the following fees with respect to the construction of a boiler, pressure vessel, fitting, pressure piping system or refrigeration plant:

(a) the fee set out in Table 5 for a shop inspection with respect to the construction of a boiler or pressure vessel;

(b) a fee calculated in accordance with subsection (3):

(i) for a shop inspection with respect to the construction of equipment not covered by Table 5; or

(ii) for a second or subsequent shop inspection of any equipment to which this section applies;

(c) a fee calculated in accordance with subsection (4) for a special inspection requested by the contractor.

(3) The amount of a fee mentioned in clause (2)(b) is:

(a) for a shop inspection conducted on a weekday:

(i) \$40 for each visit plus \$40 per hour or part of an hour in excess of one hour for the first eight hours worked by the inspector to conduct the inspection; and

(ii) \$80 per hour or part of an hour for time worked in excess of eight hours in a day by the inspector to conduct the inspection;

(b) for a shop inspection conducted on a Saturday, Sunday or holiday, \$80 per hour or part of an hour for time worked by the inspector to conduct the inspection.

(4) The amount of a fee for a special inspection is \$80 per hour or part of an hour for time worked by the inspector to conduct the inspection plus all reasonable travel, meal and accommodation expenses.

### **Permit to install, alter or repair**

**32** A contractor shall:

- (a) report any work of installation, alteration or repair of a boiler, pressure vessel or refrigeration plant to the department on a permit form supplied by the department; and
- (b) submit the appropriate fee set out in Table 6.

**Inspection fees - installation, etc.**

**33(1)** Subject to subsections (2) and (3), the fee required by clause 32(b) covers the cost of an acceptance inspection of the work of installation, alteration or repair.

(2) If work of installation, alteration or repair is not reported in accordance with clause 32(a), the fee required for an acceptance inspection is 200% of the appropriate fee set out in Table 6.

(3) If more than one inspection is required before a boiler, pressure vessel or refrigeration plant is put, or put back, into service, the contractor shall pay an additional fee in the amount of:

(a) \$40 per hour for each hour or part of an hour required by the inspector to conduct the inspection, to a maximum of \$320 for an eight-hour day; and

(b) if an inspector works more than eight hours in a day in conducting the inspection, \$80 per hour for each hour or part of an hour in excess of eight hours worked in the day by the inspector.

**Classes of pressure welders' licences**

**34(1)** The following classes of pressure welders' licences are established:

(a) Class M - manual welding;

(b) Class SM - semi-automatic/machine welding.

(2) A Class M 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 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.

**Issuance of pressure welder's licence based on test**

**35(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 pursuant to Division 3 of Part V.

(2) If a pressure welder's qualification test is administered to a person by an inspector pursuant to section 112, 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 114, 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 qualification test issued to the person by the authorized contractor who administered the test; and

(b) pay a fee of \$50.

(4) A pressure welder's licence issued pursuant to this section expires two years after the date of issue.

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

**36(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 3 of Part V;

(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 three months later than the date of the applicant's application; and

(c) applies to the chief inspector on a form supplied by the department and submits with the application:

(i) a fee of \$50; 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.

#### **Limitations in pressure welder's licence**

**37** The chief inspector may specify in a licence issued pursuant to section 35 or 36 the processes that the holder is qualified to carry out and any limitations with respect to welding variables that the chief inspector considers appropriate.

PART III  
**Operation of Boilers and Plants**

DIVISION 1  
**Interpretation of Part**

**Definitions**

38 In this Part:

- (a) **“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;
- (b) **“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:
- (i) within range of the audible or visual alarm for the boiler or plant; and
  - (ii) in the primary control area where the person can provide manual control of the operation of the boiler or plant;
- (c) **“general supervision”**:
- (i) 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:
    - (A) manually starts the boiler or plant whenever the boiler or plant is not under automatic control and restarting is required;
    - (B) does not leave the premises without ensuring that the boiler or plant is operating under automatic control; and
    - (C) 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
  - (ii) with respect to a refrigeration plant, means that a person holding a licence of the appropriate class to operate the refrigeration plant:
    - (A) manually starts the refrigeration plant whenever the refrigeration plant is not under automatic control and restarting is required; and
    - (B) does not leave the premises without ensuring that the refrigeration plant is operating under automatic control;
- (d) **“guarded plant licence”** means a licence issued pursuant to subsection 35(2) of the Act;
- (e) **“licence of the appropriate class”** means a licence that is appropriate in relation to:
- (i) the type and capacity of the boiler or plant in question; and

- (ii) the capacity in which the holder of the licence is to act;
- (f) **“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;
- (g) **“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:
  - (i) manually starts the boiler or plant whenever the boiler or plant is not operating under automatic control and restarting is required;
  - (ii) 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;
  - (iii) does not leave the premises while the boiler or plant is operating without ensuring that:
    - (A) the boiler or plant is operating safely under automatic control;
    - (B) all of the devices required pursuant to section 21 for the boiler or plant are operational; and
    - (C) any building containing or serviced by the operating boiler or plant is unoccupied; and
  - (iv) 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.

## DIVISION 2 Authority to Operate

### Exemptions - owner's licence to operate

**39** 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 multiple of 1.5 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.

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

**40(1)** An owner of a boiler, pressure vessel or refrigeration plant that is in service in Saskatchewan must apply for a licence authorizing the operation of the boiler, pressure vessel or refrigeration plant not later than June 30 in each year.

(2) An application pursuant to subsection (1) must be accompanied by the fee appropriate for the type and capacity of the boiler, pressure vessel or refrigeration plant as set out in Table 7, 8 or 9.

(3) A licence issued pursuant to this section expires on June 30 next following.

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

**41(1)** An owner who intends to put into service a new boiler, pressure vessel or refrigeration plant or a boiler, pressure vessel or refrigeration plant 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, pressure vessel or refrigeration plant.

(2) In the case of a new boiler, pressure vessel or refrigeration plant, an application pursuant to subsection (1) must be made after the initial installation is completed and before the boiler, pressure vessel or refrigeration plant is put into service.

(3) In the case of a boiler, pressure vessel or refrigeration plant that is installed but not currently in service, an application pursuant to subsection (1) must be made before the boiler, pressure vessel or refrigeration plant is put into service.

(4) An application pursuant to subsection (1) must be accompanied by:

(a) the fee appropriate for the type and capacity of the boiler, pressure vessel or refrigeration plant as set out in Table 7, 8 or 9 if the application is for a licence to be issued in the period commencing on July 1 in a year and ending on December 31 in the same year; or

(b) one-half of the fee appropriate for the type and capacity of the boiler, pressure vessel or refrigeration plant as set out in Table 7, 8 or 9 if the application is for a licence to be issued in the period commencing on January 1 in a year and ending on June 30 in the same year.

(5) The chief inspector may issue to the applicant a licence to operate the boiler, pressure vessel or refrigeration plant as owner if, after conducting an inspection, an inspector issues an inspection certificate with respect to the boiler, pressure vessel or refrigeration plant.

(6) A licence issued pursuant to subsection (5) expires on June 30 next following.

**Owner's licence to operate boiler plant**

**42** For the purposes of clause 5(1)(c) of the Act, an owner who holds a valid licence to operate each

boiler comprising a boiler plant is deemed to hold a valid licence to operate the plant.

**Classes of operators' licences established**

**43** 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) limited power engineer (fireman);
- (g) limited power engineer (oilfield);
- (h) limited power engineer (traction);
- (i) limited power engineer (commercial);
- (j) refrigeration engineer;
- (k) refrigeration plant operator.

**Scope of authority of operators' licences**

**44(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) 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) a refrigeration plant of any capacity; and
- (b) to operate as shift engineer a high pressure boiler or high pressure boiler 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) a refrigeration plant with a capacity of not more than 500 tonnes; 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 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) a refrigeration plant with a capacity of not more than 200 tonnes; 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 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) a refrigeration plant with a capacity of not more than 50 tonnes; 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 refrigeration plant with a capacity of not more than 200 tonnes.
- (6) A limited power engineer's (fireman) 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; 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 500 kilowatts;
    - (ii) a low pressure boiler or low pressure boiler plant of any capacity.
- (7) Subject to subsection (10), a limited power engineer's (oilfield) licence entitles the holder to operate a high pressure boiler or high pressure boiler plant of the type and capacity specified in the licence that is used in an oilfield location.
- (8) Subject to subsection (10), a limited power engineer's (traction) licence entitles the holder to operate a high pressure traction boiler of the capacity specified in the licence.
- (9) Subject to subsection (10), a limited power engineer's (commercial) licence entitles the holder to operate a high pressure boiler or high pressure boiler plant of the type and capacity specified in the licence that is used in a commercial application.
- (10) The capacity of a high pressure boiler or high pressure boiler plant specified in a limited power engineer's licence of any class shall not exceed 500 kilowatts.
- (11) A refrigeration engineer's licence entitles the holder to operate a refrigeration plant of any capacity.
- (12) A refrigeration plant operator's licence entitles the holder to operate a refrigeration plant with a capacity of not more than 100 tonnes.

#### **Application for operator's licence**

- 45(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 fee set out in Table 10.
- (3) An operator's licence issued pursuant to this section is valid for a period of five years from the date of issue.

#### **Permit to operate in urgent cases**

**46(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 on a form supplied by the department and submit with the application a fee of:

(a) \$40 for a 30-day permit; or

(b) \$120 for a 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.

### **Guarded plant licence**

**47(1)** Subject to subsections (6) to (8), a guarded plant licence authorizes the holder of the licence to operate, in the capacity of owner, the boiler or plant specified in the licence with a degree of supervision that complies with:

(a) section 48 or 50;

(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 to which the application relates;

(c) set out the type and capacity of each boiler to which the application relates;

(d) satisfy the chief inspector that each boiler to which the application relates meets the requirements of section 21; and

(e) submit a fee of \$120 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 to which the application applies:

(a) meets the requirements of section 21; 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 three 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 any control, alarm or safety device or system required pursuant to section 21 or by any term or condition of the guarded plant licence becomes inoperative or, for any reason, ceases to be capable of performing the function for which it was intended, the guarded status of the boiler 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) A period of suspension pursuant to subsection (6) continues until the device or system has been repaired and an inspector has been notified of the repair.

### DIVISION 3 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 traction boilers.

(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) is responsible for the operation of the boiler or boiler plant; and
- (b) is not responsible for the operation of any other boiler or boiler plant.

(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:

- (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 of 1 000 kilowatts or less; or
- (c) authorize 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.

**Operation of antique boilers**

49(1) No person shall operate a traction boiler that is more than 35 years old at a working pressure greater than 690 kilopascals.

(2) No owner of a traction boiler shall cause or permit the boiler to be operated unless continuous supervision is provided by a person who holds a valid operator's licence of the appropriate class authorizing the holder to operate the boiler as chief engineer.

(3) 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.

**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 is responsible for the operation of the boiler or boiler plant.

(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 limited power engineer's (fireman) 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.

**Supervision - refrigeration plants**

**51(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.

**Compliance with section 33 of Act**

**52(1)** Subject to subsection (2), compliance with section 48, 49 or 50 is deemed to be compliance with subsection 33(1) of the Act.

(2) For boilers and plants that are not described in section 48, 49 or 50:

- (a) no certificate of qualification is prescribed pursuant to clause 33(1)(a) of the Act for persons responsible for the operation of the boiler or plant; 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 or boiler plant.

(3) The provision of supervision with respect to a boiler or plant in accordance with section 48, 49 or 50 is deemed to be compliance with the requirement for personal attendance on the boiler or plant at all times by a person possessing the prescribed certificate of qualification as set out in clause 33(1)(b) of the Act.

**Log books**

**53(1)** Subject to subsection (4), the owner of a boiler or boiler plant for which supervision is required shall:

- (a) provide a log book in which all information relevant to the operation of the boiler or boiler plant is to be recorded;
- (b) subject to subsection (3), ensure that all information relevant to the operation of the boiler or boiler plant is recorded promptly in the log book by the appropriate person in accordance with this section;
- (c) ensure that the log book is kept at the site of the boiler or boiler plant; 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 five 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 or boiler plant required by these regulations; and
    - (iii) the boiler conditions observed during the shift;
  - (b) a description of any abnormal boiler or boiler plant 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 or boiler plant 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 or boiler plant 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.

#### DIVISION 4 Periodic Inspections

##### **Application of Division**

**54(1)** This Division 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 55 or 56 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.

##### **High pressure boilers**

**55(1)** Subject to subsection (2), a high pressure boiler must be inspected:

- (a) at intervals not exceeding one 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) A high pressure boiler that is being operated pursuant to a quality management system may be inspected at intervals not exceeding three 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 53:
    - (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 in which the boiler is out of service; and
      - (C) the reason for the boiler being out of service.

### **Low pressure boilers**

**56(1)** Subject to subsection (2), 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 two 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) A low pressure hot water heating boiler of the coil or fin-tube type may be inspected at intervals not exceeding four years.

### **Pressure vessels**

**57** 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.

**Refrigeration plants**

**58** A refrigeration plant 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 two 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.

**Compressed gas plants**

**59** A compressed plant must be inspected:

- (a) at intervals, as determined by the chief inspector, having regard to the service conditions and risk factors associated with the compressed gas plant, not exceeding 10 years; or
- (b) if the owner holds a valid certificate of authorization for a quality management system that applies to the compressed gas plant, at the frequency specified in the quality management system.

**Internal inspection required**

**60** Where construction and service conditions permit, a periodic inspection of a boiler, pressure vessel, refrigeration plant or compressed gas plant must be an internal inspection.

**Inspection fees**

**61(1)** Subject to subsections (2) and (3), the fee required by subsection 40(2) or 41(4) for an owner's licence to operate a boiler, pressure vessel or refrigeration plant covers the cost of a periodic inspection of the boiler, pressure vessel or refrigeration plant to which the licence applies.

(2) With respect to a periodic inspection of equipment or a plant not covered by Table 7, 8 or 9, an owner shall pay a fee in an amount determined in accordance with clause (a) or (b):

- (a) for a periodic inspection conducted on a weekday:
  - (i) \$40 for each visit plus \$40 per hour or part of an hour in excess of one hour for the first eight hours worked by the inspector to conduct the inspection; and
  - (ii) \$80 per hour or part of an hour for time worked in excess of eight hours in a day by the inspector to conduct the inspection;
- (b) for a periodic inspection conducted on a Saturday, Sunday or holiday, \$80 per hour or part of an hour for time worked by the inspector to conduct the inspection.

(3) The amount of a fee for a special inspection requested by an owner is \$80 per hour or part of an hour for time worked by the inspector to conduct the inspection plus all reasonable travel, meal and accommodation expenses.

## PART IV

**Quality Management Systems**

## DIVISION 1

**Interpretation of Part****Definitions**

**62** In this Part:

- (a) **“applicable standard”** means, in relation to any equipment or activity, any requirement, applicable to the equipment or activity, set out in:
  - (i) the Act;
  - (ii) these regulations;
  - (iii) any adopted code or standard; or
  - (iv) any term or condition of a licence, permit or certificate issued pursuant to the Act or these regulations;
- (b) **“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;
- (c) **“departmental inspector”** means an inspector as defined in section 2 of the Act;
- (d) **“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;
- (e) **“licensed pressure equipment inspector”** means a person who holds a valid pressure equipment inspector’s licence;
- (f) **“manual”** means the manual required by section 67 for a quality management system.

## DIVISION 2

**Requirements for Quality Management System****Inspections by licensed pressure equipment inspectors**

**63(1)** Subject to subsection (2), an owner or insurer 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) A component of an inspection that involves a process requiring expertise other than the expertise of a 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.

**Inspection certificates**

**64** 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 pressure equipment inspector based on that inspection, the equipment inspected meets the requirements of the Act, these regulations and the quality management system.

#### **Designated pressure equipment inspector**

**65** An owner or insurer must:

- (a) designate at least one licensed pressure equipment inspector who holds a licence of the appropriate class 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 is terminated or a new designation is made.

#### **Reports to chief inspector**

**66(1)** An owner or insurer must provide the chief inspector with reports, certified by a designated pressure 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.

#### **Manual**

**67(1)** An owner or insurer must prepare a manual that sets out in detail the quality management system that the owner or insurer 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 or insurer 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 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.

**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.

**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, without limiting the generality of the foregoing, the manual, procedures, inspection plans, reports and forms.

**Contract review**

**70(1)** A quality management system must include a system for preparing and negotiating contracts relating to pressure equipment 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).

**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.

**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.

**Inspection of new equipment**

73 A quality management system must include a system for the inspection of new pressure equipment and its installation to ensure that the requirements of any applicable standard are met before the equipment is put into service.

**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.

**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.

**Periodic inspections**

76(1) A quality management system must include a system for the periodic inspection of any pressure equipment in service to ensure that the equipment continues to meet the requirements of any applicable standard while it is in service.

(2) A system required by subsection (1) must include a system for establishing safe maximum intervals for the inspection of pressure equipment.

**Inspection of repairs, alterations**

77 A quality management system must include a system for the inspection of any pressure equipment that has been repaired or altered to ensure that the repaired or altered equipment meets the requirements of any applicable standard before it is put back into service.

**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 an applicable standard; and
- (b) preventing the recurrence of any similar problem or non-conformity.

**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.

**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.

**Audit by departmental 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, a departmental 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 a fee of \$40 per hour or part of an hour for an audit conducted on a weekday or \$80 per hour or part of an hour for an audit conducted on a Saturday, Sunday or holiday, subject to a minimum of four hours, plus all reasonable travel, meal and accommodation expenses incurred by the inspector.

## DIVISION 3

**Certificates of Authorization****Application for approval**

**82(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 on a form supplied by the department;

(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 a fee of \$200.
- (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 or plant to which the application relates.
- (4) With respect to an audit conducted pursuant to clause (3)(b), the applicant shall pay a fee of \$40 per hour or part of an hour for an audit conducted on a weekday or \$80 per hour or part of an hour for an audit conducted on a Saturday, Sunday or holiday, subject to a minimum of four hours, plus all reasonable travel, meal and accommodation expenses incurred by the inspector.
- (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.

**Classes of certificates of authorization**

83(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.
- (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 or 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 22, of any repair of, or alteration to, any boiler, pressure vessel, pressure piping system or plant described in clause (a); and

(c) acceptance inspections, in accordance with a design registered pursuant to section 22, of any new pressure piping system 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, are conducted by a designated pressure equipment inspector in accordance with a design registered pursuant to section 22.

(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.

#### **Duration of certificate of authorization**

**84** A certificate of authorization issued pursuant to this Division is valid for a period of three years from the date of issue.

#### **Certain requirements not affected by quality management system**

**85(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.

### **DIVISION 4**

#### **Pressure Equipment Inspectors**

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

**86** 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 hold a valid pressure equipment inspector's licence.

#### **Classes of pressure equipment inspectors' licences**

**87(1)** 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.

(2) 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 40 or 41 or is deemed to hold an owner's licence pursuant to section 42;
- (b) a pressure vessel to which the Act applies but that is exempted by section 39 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 pressure piping system for which a design has been registered pursuant to subsection 11(1) of the Act.

(3) 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 40 or 41 or is deemed to hold an owner's licence pursuant to section 42, and any associated pressure piping system;
- (b) a pressure vessel to which the Act applies but that is exempted by section 39 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.

#### **Duration of licence**

**88** A pressure equipment inspector's licence issued pursuant to this Division is valid for a period of five years from the date of issue.

#### **Eligibility for pressure equipment inspector's licences**

**89(1)** 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 commission issued by NBBI; or

(iii) 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.

(2) A person who wishes to apply for the issuance of a pressure equipment inspector's licence pursuant to subsection (1) must:

(a) furnish evidence satisfactory to the chief inspector that the person meets the requirements set out in subsection (1); and

(b) subject to subsection (3), pay a fee of:

(i) \$100 in the case of an application for a pressure equipment inspector's licence, class 1; or

(ii) \$75 in the case of an application for a pressure equipment inspector's licence, class 2.

(3) A person who is applying for a pressure equipment inspector's licence for the first time after passing an examination for a pressure equipment inspector's certificate pursuant to Division 4 of Part V is not required to pay the fee for the appropriate class of certificate as set out in clause (2)(b).

## PART V Qualifications of Personnel

### DIVISION 1 Examinations and Tests

#### Interpretation of Division

**90** In this Division:

(a) **“examination”** means an examination for a certificate of qualification mentioned in Division 2 or Division 4;

(b) **“test”** means a pressure welder's qualification test mentioned in Division 3.

#### Application for examination

**91**(1) Subject to subsection (2) and section 92, a candidate for any examination must apply to the chief inspector on a form supplied by the department at least 21 days before an examination sitting.

(2) A candidate for a refrigeration plant operator's examination or the examination for any category of limited power engineer may apply to the chief inspector at any time before the examination.

(3) A candidate for an examination must submit with the application the fee for that examination set out:

(a) in Table 11 in the case of a certificate of qualification mentioned in Division 2; or

(b) in clause 117(c) in the case of a certificate of qualification mentioned in Division 4.

(4) Subject to subsection (5), where there is a requirement for operating experience to qualify for an

examination, a candidate for that examination must submit written verification of operating experience from the employer or employers in whose service the candidate has acquired the operating experience.

(5) A candidate for a limited power engineer's examination or for Part A of the first, second, third or fourth class power engineer's examination need not submit verification of operating experience.

(6) Operating experience required for a candidate's qualification for an examination 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.

(7) With the exception of the refrigeration plant operator's and limited power engineer's examinations, no candidate shall be examined unless his or her application has been approved by the chief inspector.

### **Special examination or test**

**92(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 furnish 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, in addition to the fee that would be applicable pursuant to subsection 91(3), section 112 or section 117:

(a) \$40 per hour or part of an hour for an examination or test to be held on a weekday, and \$80 per hour or part of an hour for an examination or test to be held on a Saturday, Sunday or holiday, that is required for:

(i) the conduct of the examination or test, including one hour of setting-up time; and

(ii) travel by the person administering the examination or test; and

(b) all reasonable travel, meal and accommodation expenses incurred by the person administering the examination or test.

### **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.

**Conduct of examinations - Division 2**

94(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 pursuant to Division 2 must be written.

(3) A refrigeration operator's or limited power engineer'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 pursuant to Division 2 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.

**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.

**Pass mark**

96(1) The minimum pass mark for each examination pursuant to Division 2 is 65%.

(2) In the case of an examination pursuant to Division 2 that consists of more than one paper, the minimum pass mark for each paper is 65%.

(3) The minimum pass mark for each examination pursuant to Division 4 is 70%.

**Waiting period for re-examination**

97 A candidate who fails any examination must wait a minimum of 30 days before being re-examined or re-tested.

**DIVISION 2****Power Engineers, Limited Power Engineers and Refrigeration Plant Operators****Certificates of qualification**

98(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) limited power engineer's (fireman) certificate;
  - (g) limited power engineer's (oilfield) certificate;
  - (h) limited power engineer's (traction) certificate;
  - (i) limited power engineer's (commercial) certificate;
  - (j) refrigeration engineer's certificate;
  - (k) refrigeration plant operator's certificate.
- (2) A certificate of qualification of the appropriate class will be issued to candidates who:
- (a) pass the examination for a particular class of certificate; and
  - (b) otherwise comply with the requirements of the Act and these regulations.

**Education requirements**

**99**(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.
- (2) A candidate for a first, second or third class power engineer's examination may write the Part A 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 class power engineer's examination may write the Part A examination without holding an operator's certificate of qualification of any class.

**Operating experience requirements**

**100**(1) Subject to subsection (2), a person who applies to be accepted as a candidate for an examination pursuant to this Division must submit evidence satisfactory to the chief inspector that the person has operating experience of the kind and duration required for the class of examination applied for.

- (2) Subject to sections 106 and 108, there are no operating experience requirements for acceptance as a candidate for examination for:
- (a) a limited power engineer's (fireman) certificate;

- (b) a limited power engineer's (oilfield) certificate;
- (c) a limited power engineer's (traction) certificate;
- (d) a limited power engineer's (commercial) certificate; or
- (e) a refrigeration plant operator's certificate.

**First class power engineer's certificate**

**101(1)** A person may be accepted as a candidate for examination 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 a 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 a 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 a 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 toward 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 toward a first class power engineer's certificate.

**Second class power engineer's certificate**

**102(1)** A person may be accepted as a candidate for examination 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 a 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 a 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 a 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 a 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 toward 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 toward a second class power engineer's certificate.

### **Third class power engineer's certificate**

**103(1)** A person may be accepted as a candidate for examination 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 chief engineer a high pressure boiler or high pressure boiler plant with a capacity greater than 500 kilowatts;

(b) for at least 12 months, has operated as shift engineer a high pressure boiler or high pressure boiler plant with a capacity greater than 1 000 kilowatts;

(c) for at least 12 months, has assisted in the operation of a high pressure boiler or high pressure boiler plant with a capacity greater than 5 000 kilowatts;

(d) 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;

(e) 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 12 months, has performed in a role acceptable to the chief inspector on the design, construction, installation, repair, maintenance or operation of pressure equipment;

(f) 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 toward a third class power engineer's certificate; or

(g) for at least six months, has 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 toward 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 toward a third class power engineer's certificate.

### **Fourth class power engineer's certificate**

**104(1)** A person may be accepted as a candidate for examination 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 a high pressure boiler or high pressure boiler plant with a capacity of not less than 250 kilowatts;
- (b) for at least 12 months, has assisted in the operation of a high pressure boiler or high pressure boiler plant with a capacity of not less than 1 000 kilowatts;
- (c) 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;
- (d) 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;
- (e) has successfully completed an approved full-time course in power engineering that:
  - (i) includes operating experience; and
  - (ii) leads toward a fourth class power engineer's certificate;
- (f) is a graduate engineer;
- (g) for at least one-half of the period mentioned in clause (a) or (b), 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
- (h) 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 toward a fourth class power engineer's certificate.

(2) Six months' credit will be granted toward 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 toward a fourth class power engineer's certificate.

#### **Fifth class power engineer's certificate**

**105(1)** A person may be accepted as a candidate for examination for a fifth class power engineer's certificate if the person:

- (a) holds a valid limited power engineer's (fireman) 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 toward 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 toward 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 toward a fifth class power engineer's certificate.

(2) Six months' credit will be granted toward 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 toward a fifth class power engineer's certificate.

#### **Limited power engineer's certificates**

**106** A person may be accepted as a candidate for examination for a limited power engineer's certificate of any class 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.

#### **Refrigeration engineer's certificate**

**107** A person may be accepted as a candidate for examination 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; or

(c) has completed an approved course related to refrigeration engineering.

**Refrigeration plant operator's certificate**

**108** A person may be accepted as a candidate for examination 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.

**DIVISION 3  
Pressure Welders****Compliance with section 16 of Act**

**109** 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 II; and
- (b) the welding process is within the scope of welding processes authorized by the licence.

**Eligibility to take test**

**110(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 former Act respecting apprenticeship;
- (b) has at least three years' experience as a 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 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 have elapsed following the first attempt.

(3) 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 35 or 36 or has held a pressure welder's licence, issued pursuant to section 35 or 36, that has now expired.

**Standards for test**

**111(1)** Except as otherwise provided in these regulations, a pressure welder's qualification test must be conducted in accordance with Section IX of the ASME code.

(2) An initial pressure welder's qualification test must be made on 152.4 millimetre Schedule 80 pipe.

(3) Subject to subsection (4), a subsequent pressure welder's qualification test must be made on:

- (a) 152.4 millimetre Schedule 80 pipe; or
- (b) 50.8 millimetre Schedule XXS pipe.

(4) A person who needs to be qualified to weld on diameters and thicknesses that are not covered by the standard tests may apply to have the pressure welder's qualification test made on pipe coupons supplied by the person that are of the diameter and thickness prescribed in Section IX of the ASME code for the welding process for which the application is being made.

#### **Application to take test administered by inspector**

**112** A person who wishes to take a pressure welder's qualification test administered by an inspector must:

- (a) apply to an inspector;
- (b) furnish evidence satisfactory to the inspector that the person meets the requirements set out in section 110; and
- (c) submit a fee of \$50.

#### **Designation of authorized contractor**

**113(1)** A holder of a contractor's licence who employs pressure welders may apply in writing to the chief inspector for designation as an authorized contractor with authority to administer pressure welders' qualification tests to employees of the holder who meet the requirements set out in subsection 114(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 qualification test 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.

#### **Test conducted by authorized contractor**

**114(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 27.

(3) An authorized contractor who tests an employee must provide to that employee a record of the pressure welder qualification test results certified by the authorized contractor or the authorized contractor's designated representative.

#### DIVISION 4 Pressure Equipment Inspectors

##### **Certificates of qualification**

**115(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.

(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.

##### **Eligibility to write examination**

**116(1)** A person is eligible to write an examination for a pressure equipment inspector's certificate, class 1 or class 2, if the person possesses at least five 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 one of the five credits required pursuant to subsection (1) must be a credit for technical qualifications pursuant to subsection (4), and at least one of the five credits must be a credit for work experience pursuant to subsection (5).

(4) Credits for technical qualifications are assigned as follows:

- (a) one credit for a journeyman 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) one credit for a third class power engineer's certificate of qualification;
- (c) two credits for a second class power engineer's certificate of qualification;
- (d) two credits for a diploma in engineering technology;

- (e) three credits for a first class power engineer's certificate of qualification;
  - (f) four 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.

**Application to write examination**

117 A person who wishes to write a pressure equipment inspector's examination must:

- (a) apply to the chief inspector in writing on a form supplied by the department;
- (b) furnish evidence satisfactory to the chief inspector that the person meets the requirements set out in section 116; and
- (c) pay a fee of:
  - (i) \$100 for the examination for a pressure equipment inspector's certificate, class 1; or
  - (ii) \$75 for the examination for a pressure equipment inspector's certificate, class 2.

## PART VI

**Anhydrous Ammonia Storage and Distribution Plants****Interpretation of Part**

118 In this Part:

- (a) **"licence to operate"** means a licence to operate an anhydrous ammonia storage and distribution plant issued pursuant to section 125;
- (b) **"permit"** means a permit to construct an anhydrous ammonia storage and distribution plant issued pursuant to section 123;
- (c) **"storage vessel"** means a pressure vessel used or intended to be used for the storage of anhydrous ammonia.

**Application of codes, standards**

119(1) Except as otherwise provided in these regulations, the requirements set out in the American National Standards Institute, Inc. standard K-61.1-1999/CGA-2.1 *Safety Requirements for the Storage and Handling of Anhydrous Ammonia* apply to the design, construction, installation and operation of

anhydrous ammonia storage and distribution plants.

(2) The requirements set out in Part II 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).

### **Prohibition**

**120** No person shall install a storage vessel underground.

### **Location of storage vessels**

**121(1)** A storage vessel with a capacity of more than 9 000 litres, or a combination of storage vessels with an aggregate capacity of more than 9 000 litres, must not be located within the boundaries of:

- (a) a city, town, village or resort village;
- (b) the portion of the City of Lloydminster 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 9 000 litres but not more than 350 000 litres, or a combination of storage vessels with an aggregate capacity of more than 9 000 litres but not more than 350 000 litres, is to be located outside the boundaries of a municipality mentioned in subsection (1), the storage vessel or combination of storage vessels must be located at least one kilometre away from any point on the boundaries of the municipality.

(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), the storage vessel or combination of storage vessels must be located at least two kilometres away from any point on the boundaries of the municipality.

(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 12.

(5) A storage vessel, or a combination of storage vessels, must not be located closer to a building, other than a building that forms part of an anhydrous ammonia storage and distribution plant, than the appropriate minimum distance set out in Table 13.

(6) 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.

(7) 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 two 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.

### **Contractor's licence**

**122** 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.

**Permit to construct**

**123(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 made on a form supplied by the department and submitted to the chief inspector, and must be accompanied by:

(a) two copies of drawings of the proposed plant, including plans and profiles, that meet the requirements of subsection (3); and

(b) a fee of:

(i) \$40 for a plant with a proposed storage capacity of not more than 90 900 litres; or

(ii) \$80 for a plant with a proposed storage capacity of more than 90 900 litres.

(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;

(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 distances between each storage vessel and each other storage vessel and structure on the site;

(e) 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

(f) 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 one 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 made on a form supplied by the department and submitted to the chief inspector, and must be accompanied by the appropriate fee set out in clause (2)(b).
- (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.

### **Acceptance inspection**

- 124(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) Subject to subsection (3), the cost of an acceptance inspection is included in the fee mentioned in clause 123(2)(b).
  - (3) If more than one inspection is required before an anhydrous ammonia storage and distribution plant is put, or put back, into service, the holder of a contractor's licence shall pay an additional fee in the amount of:
    - (a) \$40 per hour for each hour or part of an hour required by the inspector to conduct the inspection, to a maximum of \$320 for an eight-hour day; and
    - (b) if an inspector works more than eight hours in a day in conducting the inspection, \$80 per hour for each hour or part of an hour in excess of eight hours worked in the day by the inspector.
  - (4) 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.

### **Licence to operate**

- 125(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 one year or five years.
- (4) The fees payable with respect to an application for a licence to operate are the fees set out in Table 14.
- (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 one year or five years, as set out in the licence, from the date of issue.
- (7) The chief inspector may grant a partial refund of the licence fee, in accordance with subsection (8) or (9), to a holder of a five-year licence who discontinues the operation of the plant for which the licence was issued.
- (8) A refund of two-thirds of the fee paid by the holder may be granted if the holder requests a refund within one year after the date of issue of the licence.
- (9) A refund of one-third of the fee paid by the holder may be granted if the holder requests a refund within two years after the date of issue of the licence.

## PART VII General

### **Duplicate certificates, licences**

**126** 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 a fee of \$40.

### **Reissuance of certificate of authorization, registration**

**127** The chief inspector may reissue a certificate of authorization for a quality management system or a certificate of registration for a quality control program manual in the name of a successor to the original holder of the certificate to an applicant who furnishes evidence satisfactory to the chief inspector that the applicant is the successor to the original holder of the certificate, together with a fee of \$40.

### **Fee for review by chief inspector**

**128(1)** An applicant for a review pursuant to subsection 25(1) of the Act shall pay an application fee of \$40.

(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.

**Fees for miscellaneous services**

**129** A person who requests a service for which no other fee is prescribed shall pay a fee in the amount of:

- (a) for a service provided on a weekday:
  - (i) \$40 per hour or part of an hour for the first eight hours worked by the person who provides the service; and
  - (ii) \$80 per hour or part of an hour for time worked in excess of eight hours in a day by the person who provides the service;
- (b) for a service provided on a Saturday, Sunday or holiday, \$80 per hour or part of an hour for time worked by the person who provides the service; and
- (c) all reasonable travel, meal and accommodation expenses incurred by the person who provides the service.

## PART VIII

**Boiler and Pressure Vessel Safety Board****General qualification for membership**

**130** To be eligible for appointment as a member of the board, an individual must have experience in the design, construction, inspection, operation or repair of boilers, pressure vessels or pressure piping systems.

**Members to represent certain groups**

**131(1)** The board must include the following members:

- (a) one 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) one member who is a licensed professional engineer with experience relating to pressure vessels and who represents owners and users of pressure vessels;
- (c) two members who are holders of first class power engineers' licences and who are actively engaged in the operation of boilers and pressure vessels;
- (d) one member who represents boiler and pressure vessel manufacturers;
- (e) one 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) one member who represents owners and users of low pressure boilers;
- (g) one 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) one member who is a faculty member of the Saskatchewan Institute of Applied Science and Technology or the Saskatchewan Indian Institute of Technologies and who is actively engaged in teaching power engineering.

(2) Where 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.

#### PART IX

#### **Repeal, Transitional and Coming into Force**

##### **Sask. Reg. 262/67 repealed**

132 The Regulations Respecting the Design, Construction, Installation and Use of Boilers and Pressure Vessels, being Saskatchewan Regulations 262/67, are repealed.

##### **Sask. Reg. 97/70, Schedule I repealed**

133 The Regulations Respecting Examinations and Certificates of Engineers and Firemen, being Schedule I of Saskatchewan Regulations 97/70, are repealed.

##### **Sask. Reg. 97/70, Schedule III repealed**

134 The Regulations Pertaining to Liquefied Propane Pressure Vessels and Distributing Plants, being Schedule III of Saskatchewan Regulations 97/70, are repealed.

##### **Sask. Reg. 99/70 repealed**

135 The Regulations Respecting Compressed Gas Pressure Vessels, being Saskatchewan Regulations 99/70, are repealed.

##### **Sask. Reg. 311/77 repealed**

136 The "Regulations Respecting Examinations and Certificates of Engineers and Firemen", being Saskatchewan Regulations 311/77, are repealed.

##### **Sask. Reg. 361/77 repealed**

137 The Regulations Respecting Anhydrous Ammonia, being Saskatchewan Regulations 361/77, are repealed.

##### **Sask. Reg. 61/78 repealed**

138 Regulations Respecting the Welding of Boilers, Pressure Vessels and Pressure Piping, being Saskatchewan Regulations 61/78, are repealed.

##### **R.R.S. c.B-5 Reg 1 repealed**

**139** *The Boiler and Pressure Vessel Fees Regulations* are repealed.

**Transitional**

**140(1)** This section applies to fees paid pursuant to subsection 3(1) or (2) of *The Boiler and Pressure Vessel Fees Regulations* with respect to certificates, registrations or permits issued or granted pursuant to *The Boiler and Pressure Vessel Act* that:

- (a) are continued by subsection 62(2) of the Act; and
- (b) pursuant to subsection 40(3) or 41(6) of these regulations, expire sooner than they would have expired pursuant to *The Boiler and Pressure Vessel Act*.

(2) The chief inspector may apply to the payment of a fee for the issuance of a licence or permit pursuant to these regulations a proportionate part of any fee mentioned in subsection (1) that relates to the period between the expiry date established pursuant to the appropriate provision mentioned in clause (1)(b) and the expiry date that would have applied pursuant to *The Boiler and Pressure Vessel Act*.

**Coming into force**

**141(1)** Subject to subsection (2), these regulations come into force on the day on which section 59 of *The Boiler and Pressure Vessel Act, 1999* comes into force.

(2) If these regulations are filed with the Registrar of Regulations after the day on which section 59 of *The Boiler and Pressure Vessel Act, 1999* comes into force, these regulations come into force on the day on which they are filed with the Registrar of Regulations.

**Appendix**

TABLE 1  
[Subsection 23(1)]

**Design Registration Fees for Boilers**

<i>Heating Surface (square metres)</i>	<i>Fee</i>
Less than or equal to 23 .....	\$115
More than 23 but less than or equal to 46 .....	145
More than 46 but less than or equal to 93 .....	185
#####	
#####	
#####	
#####More than 93 but less than or equal to 278 .....	215
More than 278 but less than or equal to 463 .....	350
More than 463 but less than or equal to 926 .....	455
More than 926 .....	715

TABLE 2  
[Subsection 23(2)]

**Design Registration Fees for Pressure Vessels other than Heat Exchangers**

<i>Multiple</i>	<i>Fee</i>
Less than or equal to 1 .....	\$ 70
More than 1 but less than or equal to 2 .....	100
More than 2 but less than or equal to 3 .....	110
More than 3 but less than or equal to 6 .....	150
More than 6 but less than or equal to 9 .....	225
More than 9 but less than or equal to 19 .....	275
More than 19 but less than or equal to 37 .....	350
More than 37 .....	555

TABLE 3  
[Subsection 23(3)]

**Design Registration Fees for Heat Exchangers**

<i>Heating Surface (square metres)</i>	<i>Fee</i>
Less than or equal to 9 .....	\$145
More than 9 but less than or equal to 28 .....	185
More than 28 but less than or equal to 46 .....	215

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More than 46 ..... 275

TABLE 4  
[Subsection 23(4)]

**Design Registration Fees for Fittings**

*Fee*

For each size submitted for separate registration .....	\$ 60
For a range of sizes on one drawing for collective registration .....	100
For a range of sizes and types listed in a catalogue .....	195
For each addition or revision to a catalogue .....	60

TABLE 5  
[Subsection 31(2)]

**Fees for Shop Inspections - Boilers and Pressure Vessels**

*Capacity of Boiler* *Fee*  
*(kilowatts)*

less than or equal to 250 .....	\$ 80
more than 250 but less than or equal to 750 .....	105
more than 750 but less than or equal to 1,000 .....	135
more than 1,000 but less than or equal to 2,000 .....	155
more than 2,000 but less than or equal to 3,000 .....	195
more than 3,000 but less than or equal to 4,500 .....	235
more than 4,500 but less than or equal to 10,000 .....	270
more than 10,000 but less than or equal to 20,000 .....	315
more than 20,000 .....	465

*Diameter or width x length of pressure vessel* *Fee*  
*(metres)*

less than or equal to 0.6 .....	\$ 50
more than 0.6 but less than or equal to 1.5 .....	60
more than 1.5 but less than or equal to 3 .....	95
more than 3 but less than or equal to 6 .....	110
more than 6 but less than or equal to 9 .....	155
more than 9 but less than or equal to 12 .....	235
more than 12 but less than or equal to 14 .....	315
more than 14 but less than or equal to 56 .....	390
more than 56 .....	545

TABLE 6  
[Sections 32 and 33]

**Permit Fees for Installation, Alteration or Repair of Boiler, Pressure Vessel or Refrigeration Plant**

<i>Capacity of Boiler (kilowatts)</i>	<i>Fee</i>
250 or less .....	\$ 46
more than 250 but not more than 750 .....	75
more than 750 but not more than 1,000 .....	110
more than 1,000 but not more than 2,000 .....	150
more than 2,000 but not more than 3,000 .....	225
more than 3,000 but not more than 4,500 .....	275
more than 4,500 but not more than 10,000 .....	350
more than 10,000 but not more than 15,000 .....	420
more than 15,000 but not more than 20,000 .....	475
more than 20,000 but not more than 25,000 .....	555
more than 25,000 .....	720

<i>Diameter or Width x Length of Pressure Vessel (metres)</i>	<i>Fee</i>
0.6 or less... ..	\$ 24
more than 0.6 but not more than 1.5 .....	30
more than 1.5 but not more than 3 .....	48
more than 3 but not more than 6 .....	85
more than 6 but not more than 9 .....	115
more than 9 but not more than 12 .....	150
more than 12 but not more than 14 .....	185
more than 14 but not more than 28 .....	225
more than 28 but not more than 56 .....	315
more than 56 .....	400

<i>Capacity of Refrigeration Plant (tonnes)</i>	<i>Fee</i>
30 or less.... ..	\$ 50
more than 30 .....	95

TABLE 7  
[Subsections 40(2) and 41(4)]

**Fees for Licence to Operate as Owner - High and Low Pressure Boilers**

<i>Capacity of Boiler (kilowatts)</i>	<i>Fee</i>
less than or equal to 250 .....	\$ 46
more than 250 but less than or equal to 750 .....	75
more than 750 but less than or equal to 1 000 .....	110
more than 1 000 but less than or equal to 2 000 .....	150
more than 2 000 but less than or equal to 3 000 .....	225
more than 3 000 but less than or equal to 4 500 .....	275
more than 4 500 but less than or equal to 10 000 .....	350
more than 10 000 but less than or equal to 15 000 .....	420
more than 15 000 but less than or equal to 20 000 .....	475
more than 20 000 but less than or equal to 25 000 .....	555
more than 25 000 .....	720

TABLE 8  
[Subsections 40(2) and 41(4)]

**Fees for Licence to Operate as Owner - Pressure Vessels**

<i>Multiple</i>	<i>Fee</i>
less than or equal to 0.6 .....	\$ 24
more than 0.6 but less than or equal to 1.5 .....	30
more than 1.5 but less than or equal to 3 .....	48
more than 3 but less than or equal to 6 .....	85
more than 6 but less than or equal to 9 .....	115
more than 9 but less than or equal to 12 .....	150
more than 12 but less than or equal to 14 .....	185
more than 14 but less than or equal to 28 .....	225
more than 28 but less than or equal to 56 .....	315
more than 56 .....	400

TABLE 9  
[Subsections 40(2) and 41(4)]

**Fees for Licence to Operate as Owner - Refrigeration Plants**

<i>Capacity of Refrigeration Plant</i>	<i>Fee</i>
30 tonnes or less .....	\$ 50
more than 30 tonnes .....	95

TABLE 10  
[Subsection 45(2)]

**Fees for Licence to Operate as Operator**

<i>Type of Licence or Permit</i>	<i>Fee</i>
First class power engineer .....	\$120
Second, third, fourth or fifth class power engineer .....	60
Limited power engineer (fireman) .....	43
Limited power engineer (oilfield) .....	100
Limited power engineer (traction) .....	43
Limited power engineer (commercial) .....	43
Refrigeration engineer .....	60
Refrigeration plant operator .....	43

TABLE 11  
[Subsection 91(3)]

**Examination Fees - Power Engineers, Limited Power Engineers and Refrigeration Plant Operators**

<i>Type of Examination</i>	<i>Fee</i>
First class power engineer, Part A .....	\$ 100
First class power engineer, Part B .....	100
Second class power engineer, Part A .....	75
Second class power engineer, Part B .....	75
Third class power engineer, Part A .....	50
Third class power engineer, Part B .....	50
Fourth class power engineer, Part A .....	25
Fourth class power engineer, Part B .....	25
Fifth class power engineer .....	50
Limited power engineer (oilfield) .....	25
Limited power engineer (traction) .....	10
Limited power engineer (commercial) .....	25
Limited power engineer (fireman) .....	10
Refrigeration engineer .....	50
Refrigeration plant operator .....	10
Part of an examination, if not otherwise specified (per paper) .....	25
Re-marking an examination (per paper) .....	100

TABLE 12  
[Subsection 121(4)]

**Minimum Distance Between Storage Tanks and Railway Tracks**

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

TABLE 13  
[Subsection 121(5)]

**Minimum Distance Between Storage Tanks and Buildings**

<i>Water Capacity of Tank or Combination of Tanks at 16 °C (Litres)</i>	<i>Minimum Distance from Tank (Metres)</i>
More than 2 000 but not more than 9 000	75
More than 9 000 but not more than 90 000	150
More than 90 000 but not more than 350 000	300
More than 350 000	600

TABLE 14  
[Subsection 125(4)]

**Fees for Anhydrous Ammonia Storage and Distribution Plant Licence**

<i>Class of Plant/Storage Capacity (litres)</i>	<i>Fee</i>		
	<i>Permanent Plant</i>		<i>Temporary Plant</i>
	<i>One Year</i>	<i>Five Years</i>	<i>One Year</i>
Class 1 (90 900 or less)	\$130	\$390	\$130
Class 2 (more than 90 900 but not more than 181 800)	\$180	\$540	\$180
Class 3 (more than 181 800 but not more than 454 600)	\$210	\$630	\$210
Class 4 (more than 454 600)	\$1,000	not available	\$1,000