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For more information concerning the history of these regulations, please see the ***Table of Regulations***.

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CHAPTER P-15

POWER ENGINEERS ACT

REGULATIONS

Made by the Lieutenant Governor in Council under the *Power Engineers Act* R.S.P.E.I. 1988, Cap. P-15

1. (1) In these regulations — Definitions

(a) "Act" means the *Power Engineers Act* R.S.P.E.I. 1988, Cap. P-15; — Act

(b) "accident" means an accident that results in damage to property or injury to or death of a person, brought about by the failure or malfunction of any plant component; — accident

(c) "assistant engineer" means the holder of a valid license who assists the regular shift engineer and is under his direction; — assistant engineer

(d) "Analysis" means the Analysis of the Power Engineers trade issued by the Department of Manpower and Immigration of the Government of Canada; — Analysis

(e) "chief engineer" means a person who holds a license of the appropriate classification and is designated by the employer as having charge of a plant; — chief engineer

(f) "continuous supervision" in relation to a boiler, means that an engineer is present in the boiler room at all times; — continuous supervision

(g) "duties" means the duties of employers and employees; — duties

(h) "examiner" means a person appointed as an examiner under the Act; — examiner

(i) "log book" means a record book of plant operations and maintenance; — log book

(j) "maintain" includes cleaning, lubricating, correcting and adjusting equipment to ensure safe and efficient operation; — maintain

(k) "overall capacity" means the total therm hour rating of all the boilers connected to a plant system; — overall capacity

(l) "plant superintendent" means a person who is employed to supervise the operation of a plant and who holds a valid license of a class appropriate for the operation of that plant or in relation to a — plant superintendent

group of plants, of the class appropriate for the operation of the largest of the plants;

prime mover

(m) "prime mover" means an initial source of motive power and includes an internal combustion engine, a steam engine, a steam or gas turbine, and an electric motor;

repair

(n) "repair" means the process necessary to restore equipment to required operational or physical condition by adjustment, replacement of parts, and overhaul of specific parts, including disassembly, reassembly, removal, and replacement;

shift engineer

(o) "shift engineer" means the holder of a valid license, who is under the direction of the chief engineer and who is in immediate charge of a shift;

standardized examination

(p) "standardized examination" means an examination accepted by the Committee for the Standardization of Power Engineers Examinations in Canada;

solid fuel

(q) "solid fuel" means any fuel that is burned on a bed or grate rather than in suspension.

One plant system

(2) Where more than one plant system is installed on the same premises, the systems shall for the purposes of these regulations be considered as a one plant system. (EC22/80)

PLANT REGISTRATION

Application and fee

2. The owner of a plant before placing it in operation shall complete an application for registration of the plant in a form approved by the Minister and pay the fee set out in the Schedule. (EC22/80)

Certificate

3. (1) Upon approval of the application, the Minister shall issue a certificate of plant registration to the plant owner and the certificate shall show

(a) the name of the plant owner and the address of the plant;
(b) the plant classification;
(c) the therm hour rating;
(d) the class of certificate required by the chief engineer;
(e) the class of certificate required by the shift engineer.

Therm hour rating

(2) For the purposes of clause (1)(c) the therm hour rating shall be determined by one of the following formulae:

(a) Formula 1:

$$\frac{X}{100{,}000},$$

where X equals the manufacturer's maximum output rating in British Thermal Units per hour,

Formula 2:

$\frac{W \times CV \times E}{100{,}000}$, where W equals the maximum weight of fuel burned per hour,

where CV equals the calorific value of the fuel in British Thermal Units per pound,

where E equals the maximum efficiency of the boiler.

The formula to be applied in any particular case shall be determined by the chief inspector;

(b) when Formula 2 is used, the owner shall make provision for the attachment of a flow meter or some other device which will accurately measure the units of fuel passing through the nozzle during a maximum firing condition. It is the intent that the owner make provision for attachment; the device will be provided by the inspector;

(c) the therm hour rating of an electric boiler is the maximum number of kilowatts supplied to the boiler per hour, as determined by its manufacturer, for its normal continuous operation, multiplied by 3,413, and divided by 100,000;

(d) the therm hour rating of a prime mover is the maximum brake horsepower as determined by its manufacturer, for its normal continuous operation, multiplied by 0.02544;

(e) the therm hour rating of a refrigeration plant is the total therm hour rating of all the prime movers used to drive the refrigeration machinery;

(f) the therm hour rating of a heating plant or power plant is the overall capacity of all the boilers interconnected to the plant system.

Boiler

(3) A boiler shall be considered isolated from the plant system when a section is removed from the boiler outlet piping, at or near the boiler.

Isolated boiler

(4) If a boiler that has been isolated is placed into service to increase the overall capacity of a plant, the owner shall ensure that a licensed power engineer is in attendance and that a boiler inspector is notified immediately. (EC22/80)

Plants classified

4. Plants are classified as follows:

First Class	above 800 therm hours
Second Class	above 400 but not over 800 therm hours
Third Class	above 200 but not over 400 therm hours
Fourth Class	above 50 but not over 200 therm hours "heating plant" above 15 but not over 100 therm hours "power plant"
Refrigeration A	above 20 therm hours
Refrigeration B	above 2.544 therm hours but not over 20 therm hours

(EC22/80)

Change in plant classification

5. If there is

(a) a change of ownership; or

(b) any addition to or deletion from a registered plant that would change the therm hour rating of that plant,

the plant shall be re-registered and a new certificate of registration issued. (EC22/80)

BOARD OF EXAMINERS

Board

6. (1) The board of examiners shall

(a) hold meetings at such times as the chairman may determine or at the request of the Minister;

(b) review applications received for examination for licenses and decide if the applicants have the qualifications required by these regulations;

(c) notify the applicant of the time and place of the examination;

(d) select examination papers for all classes of licenses;

(e) when necessary, assist the examiner in the conducting of examinations;

(f) assess the marks obtained in an examination;

(g) recommend to the Minister the appropriate class of license to be issued to a successful candidate;

(h) review all applications for certificates of plant registration and determine the classification and therm hour rating of plants;

(i) recommend to the Minister the appropriate classification and therm hour rating of certificates of plant registration;

(j) review all applications for transfer of licenses issued in any other jurisdiction;

(k) review all applications for enrollment in full-time and part-time courses for upgrading power engineering qualifications.

Recommendation of cancellation

(2) The board may recommend to the Minister the cancellation or suspension of a license or certificate of plant registration.

Report to Minister

(3) The chairman of the board shall, following a board meeting, submit to the Minister a report on the subjects dealt with and the decisions made by the board. (EC22/80)

EXAMINATIONS

Examination papers

7. (1) The examination papers for all classes of licenses shall be those that have been accepted by the Committee for the Standardization of Power Engineers Examinations in Canada as meeting national standards, and are in use in the standardization program.

Approval of Board

(2) Examination papers for refrigeration licenses shall be approved by the Board.

Candidate requirements

(3) A candidate shall, at least 15 days before the date fixed for examination, submit

(a) an application in a form approved by the Minister;

(b) the appropriate fee set out in the Schedule; and

(c) copies of testimonials or other evidence respecting the candidate's experience.

Experience qualification

(4) The qualifications of a candidate relating to his experience in the installation, operation, and repairing of boilers, pressure vessels, pressure piping and related equipment, may be proved by testimonials signed by the employer or chief engineer of the plant in which he was employed or by statutory declarations made by responsible persons who have personal knowledge of the facts that are to be established.

Educational qualification

(5) Educational qualifications shall be vouched for by documents issued by the institution in which the candidate received his training. (EC22/80)

ORAL EXAMINATIONS - TRANSITIONAL PROVISIONS

Candidate without license

8. (1) The provisions of this section apply to candidates who do not hold licenses issued after written examination in accordance with standards established by the Committee for the Standardization of Power Engineers Examinations in Canada but in the opinion of the board have sufficient knowledge and experience to be considered for the issue of a license by way of oral examination.

First class license

(2) No person may be a candidate for a first class license unless he has not less than twelve years experience in the province in the operation and maintenance of boilers and pressure vessels as of June 30, 1973, and

(a) is presently employed in a heating plant or power plant having a rating greater than 800 therm hours;

(b) has had four years experience in the operation and maintenance of a heating plant or power plant having a rating greater than 800 therm hours; and

(c) has had two years experience serving as chief engineer or shift operator in a heating plant or power plant having a rating greater than 800 therm hours.

Second class license

(3) No person may be a candidate for a second class license unless he had not less than ten years experience in the province in the operation and maintenance of boilers and pressure vessels as of June 30, 1973, and

(a) is presently employed in a heating plant or power plant having a rating greater than 400 therm hours;

(b) has had three years experience in the operation and maintenance of a heating plant or power plant having a rating greater than 400 therm hours; and

(c) has had two years experience serving as chief engineer or second class operator in a heating plant or power plant having a rating greater than 400 therm hours.

Third class license

(4) No person may be a candidate for a third class license unless he had not less than seven years experience in the province in the operation and maintenance of boilers and pressure vessels as of June 30, 1973, and

(a) is presently employed in a heating plant or power plant having a rating greater than 200 therm hours;

(b) has had two years experience in the operation and maintenance of a heating plant or power plant having a rating greater than 200 therm hours; and

(c) has had one years experience serving as chief engineer or third class operator in a heating plant or power plant having a rating greater than 200 therm hours.

Fourth class license

(5) No person may be a candidate for a fourth class license unless he had not less than four years experience in the province in the operation and maintenance of boilers and pressure vessels as of June 30, 1973, and

(a) is presently employed in a heating plant or power plant having a rating greater than 15 therm hours (power plant) or 50 therm hours (heating plant);

(b) has had one years experience in the operation and maintenance of a heating plant or power plant having a rating greater than 15 therm hours (power plant) or 50 therm hours (heating plant); and

(c) has had one years experience serving as chief engineer or fourth class operator in a heating plant or power plant having a boiler rating greater than 15 therm hours (power plant) or 50 therm hours (heating plant).

Refrigeration class A license

(6) No person may be a candidate for a refrigeration class A license unless he had not less than four years experience in the province in the operation and maintenance of refrigeration plants as of June 30, 1973, and

(a) is presently employed in a refrigeration plant having a rating greater than 20 therm hours;

(b) has had two years experience in the operation and maintenance of a refrigeration plant having a rating greater than 20 therm hours; and

(c) has had one years experience acting as chief engineer or shift operator in a refrigeration plant having a rating greater than 20 therm hours.

Refrigeration class B license

(7) No person may be a candidate for a refrigeration class B license unless he has not less than three years experience in the province in the operation and maintenance of refrigeration plants as of June 30, 1973, and

(a) is presently employed in a refrigeration plant having a rating greater then 2.544 therm hours;

(b) has had two years experience in the operation and maintenance of a refrigeration plant having a rating greater than 2.544 therm hours; and

(c) has had one years experience serving as chief engineer or shift operator in a refrigeration plant having a rating greater than 2.544 therm hours.

Oral examination

(8) Where a person meets the requirements of this section the board shall direct the chief inspector to arrange for and conduct an oral examination of the candidate and in the conduct of the oral examination the chief inspector may, if he deems it advisable, and after consultation with the board, obtain the services of persons knowledgeable in the field of power engineering to assist him in the examination of any candidate for a license under this section. (EC22/80)

ISSUE OF LICENSES TO PERSONS QUALIFIED IN ANOTHER PROVINCE

License to qualified persons in another province

9. (1) A person who has obtained a power engineer's license by successfully passing the standardized examination in any other Canadian province shall be issued a license under these regulations if

(a) he completes and files with the board an application for transfer in a form approved by the Minister;

(b) he pays the appropriate fee set out in the Schedule; and

(c) the board obtains confirmation of the issue of the license from the issuing authority.

Conditions

(2) A person who holds a license issued by the appropriate authority in any jurisdiction which did not use a standardized examination to determine the competency of that person, may be granted a license under these regulations if

(a) he completes and files with the board an application for transfer;

(b) he pays the required fee;

(c) the board obtains confirmation of the issue of the license from the issuing authority; and

(d) the board determines that the license held is equivalent to a license issued under this Act. (EC22/80)

POWER OF BOARD TO ISSUE DISPENSATION

Chief engineer

10. (1) If a person is employed as chief engineer in a plant, and during the course of his employment has been involved in a plant expansion with the result that a higher class of license is required for a chief engineer in that plant, the board may, on the recommendation of the chief inspector, grant him a dispensation from the requirements of these regulations that will enable him to continue to act as chief engineer in that plant.

Dispensation for certain positions

(2) Notwithstanding subsection (1), the chief engineer in a plant may apply to the board for a dispensation from the requirements of clauses 14(3)(b) and (c) and (4)(b) and (c) with respect to the class of license required for certain shift engineer or assistant engineer positions in that plant.

Application for dispensation

(3) An application under subsection (2) shall be in writing and shall

(a) state the name, certification level and experience of the engineer in respect of whom the dispensation is sought; and

(b) include documents verifying that the engineer is engaged or enrolled in an upgrading course in power engineering to attain the required level of certification.

Grant subject to conditions

(4) The board may grant a temporary dispensation reducing the class of license required for the position by one level of class and may impose such conditions as it considers appropriate. (EC22/80; 123/97)

LICENSES

Classes of licenses

11. (1) Power engineers licenses shall be classified as follows:

Power Engineer Fourth Class
Power Engineer Third Class
Power Engineer Second Class
Power Engineer First Class
Power Engineer Refrigeration B
Power Engineer Refrigeration A

Form

(2) Licenses shall be issued in a form approved by the Minister.

Expiry

(3) Licenses shall expire on the date indicated in the license and may be renewed on payment of the renewal fee set out in the Schedule.

Composition

(4) A license shall contain the following information:

(a) classification;

(b) whether the license is standardized or provincial;
(c) the positions that the holder of the license may be employed to fill;
(d) the date the license was first issued and the date of expiry. (EC22/80; 44/95)

QUALIFICATIONS FOR CANDIDACY

Fourth class

12. (1) Any person may be a candidate for a fourth class license who
(a) has not less than 12 months experience in installation, operation and repair of boilers, pressure vessels, pressure piping and related equipment, and
(ii) has completed an upgrading course in power engineering fourth class as required by the board;
(b) has completed, at any recognized trade school or university, a full-time course in power engineering fourth class.

Third class

(2) Any person may be a candidate for a third class license who is the holder of a valid fourth class license and has since the issue of that license
(a) (i) for a period of one year operated as chief engineer or shift engineer in a heating plant or power plant, or
(ii) has for a period of one year operated as assistant shift engineer in a heating plant or power plant; and
(b) has completed an upgrading course in power engineering third class as required by the board.

Second class

(3) Any person may be a candidate for a second class license who is the holder of a valid third class license and has, since the issue of that license, not less than 24 months experience in aggregate in the following capacities or any combination of them:
(a) chief engineer or shift engineer in a registered power plant having a rating greater than 100 therm hours;
(b) shift engineer or assistant engineer in a registered power plant having a rating greater than 400 therm hours;
(c) has for a period of not less than 24 months operated as an assistant shift engineer in a registered power plant having a rating greater than 800 therm hours.

First class

(4) Any person may be a candidate for a first class license who is the holder of a valid second class license and has since the issue of that license not less than 24 months experience in aggregate in the following capacities or any combination of them:
(a) chief engineer or shift engineer in a registered power plant having a rating greater than 400 therm hours;

(b) shift engineer or assistant engineer in a registered power plant having a rating greater than 800 therm hours;

(c) has for a period of 12 months been employed as plant supervisor in a registered power plant having a rating greater than 400 therm hours.

Refrigeration class B

(5) Any person may be a candidate for a refrigeration class B license who

(a) has not less than 12 months experience (at least 3 of which are in operation) in the installation, operation and repair of industrial refrigeration systems; or

(b) not less than 6 months experience in the operation of an industrial refrigeration plant having a therm hour rating greater than 2.544 therm hours.

Refrigeration class A

(6) Any person may be a candidate for a refrigeration class A license who is the holder of a valid class B license and has, since the issue of that license, not less than 12 months experience in the following capacities or any combination of them:

(a) chief engineer or shift engineer in a registered refrigeration plant having a rating greater than 2.544 therm hours;

(b) shift engineer or assistant engineer in a registered refrigeration plant having a rating greater than 20 therm hours.

Unsuccessful candidate

(7) If a candidate fails an examination, 90 days shall elapse before he is eligible to rewrite that examination.

Pass marks

(8) Pass marks for all examinations shall be 65%. (EC22/80)

RECOGNITION OF EQUIVALENT TRAINING AND EXPERIENCE

Equivalent training

13. A person having special engineering training in a recognized university or having completed a course in power engineering satisfactory to the board, or having experience in the construction or repair of boilers, may be granted such time in lieu of practical operating experience as the board deems fair and reasonable. (EC22/80)

CAPACITIES IN WHICH LICENSED ENGINEERS MAY BE EMPLOYED

First class employment capacity

14. (1) The holder of a valid first class license may be employed as chief engineer or shift engineer in any registered plant.

Second class

(2) The holder of a valid second class license may be employed as

(a) chief engineer of

(i) any registered heating plant,

(ii) any registered power plant not exceeding 800 therm hours,

(iii) any registered refrigeration plant;

(b) shift engineer of

(i) any registered heating plant,

(ii) any registered power plant,

(iii) any registered refrigeration plant.

Third class

(3) The holder of a valid third class license may be employed as

(a) chief engineer of

(i) any registered heating plant,

(ii) a registered power plant not exceeding 400 therm hours,

(iii) any registered refrigeration plant not exceeding 20 therm hours;

(b) shift engineer of

(i) any registered heating plant,

(ii) a registered power plant not exceeding 800 therm hours,

(iii) any registered refrigeration plant;

(c) assistant engineer in any registered plant.

Fourth class

(4) The holder of a valid fourth class license may be employed as

(a) chief engineer of

(i) a registered heating plant not exceeding 200 therm hours,

(ii) a registered power plant not exceeding 100 therm hours;

(b) shift engineer of

(i) any registered heating plant,

(ii) a registered power plant not exceeding 400 therm hours,

(iii) any registered refrigeration plant;

(c) assistant engineer in a registered plant not exceeding 800 therm hours.

Refrigeration class A

(5) The holder of a valid refrigeration class A license may be employed as chief engineer or shift engineer of any registered refrigeration plant.

Refrigeration class B

(6) The holder of a valid refrigeration class B license may be employed as

(a) chief engineer of a registered refrigeration plant not exceeding 20 therm hours;

(b) shift engineer of any registered refrigeration plant. (EC22/80)

DUTIES OF EMPLOYERS

Chief engineer designated

15. (1) In a registered plant where two or more power engineers are employed to operate the plant, the employer shall designate one of them as chief engineer of the plant.

Log book

(2) The employer shall provide a log book for use in his plant in a form approved by the chief inspector.

Idem

(3) The employer or his designate shall note the entries made in the log book for each twenty-four hour period and shall sign or initial the log entries for each such period.

Tools and equipment

(4) The employer shall supply all the necessary tools, equipment, parts and supplies to enable power engineers to operate, maintain and repair all plant components as required by the employer.

Storage area

(5) The employer shall provide a suitable storage area or stock room for the retention of the tools, equipment, parts and supplies mentioned in subsection (4). (EC22/80)

DUTIES OF CHIEF ENGINEER

Chief engineer

16. (1) The chief engineer shall be held accountable to the employer for the proper care and safe operation of the boilers, pressure vessels, and machinery under his charge.

Casualties

(2) He shall report all accidents and casualties.

Defects

(3) He shall report to the employer and to an inspector any defects that he may have discovered or that have been reported to him which could endanger the safety of the boilers or machinery.

Duties of chief engineer

(4) The chief engineer shall

(a) take all measures necessary to maintain the plant in a safe operating condition and notify the employer of the measures taken;

(b) direct and supervise shift supervisors or shift engineers, as the case may be, in their work and duties to ensure the safe operation of the plant;

(c) be responsible for the safe keeping of all tools, equipment, and supplies provided by the employer for the operation, maintenance, and repair of the plant;

(d) see that the engineer in charge of each shift records in the log book

(i) the date, number and designation of the shift and his name,

(ii) that he has completed the applicable tasks and subtasks of Block D of the Analysis,

(iii) any changes from normal operating procedures and the time of such change,

(iv) any special instructions which may have been given to effect the change referred to in subclause (iii), and the name of the person who gave the instructions,

(v) any unusual or abnormal conditions observed in the plant and the time thereof,
(vi) repairs to any part of the plant and the time such repairs commenced and if completed on his shift, the time thereof, and
(vii) the time of commencing and terminating his shift. (EC22/80)

DUTIES OF SHIFT ENGINEER

Shift engineer duties

17. The shift engineer shall
(a) under the direction of the chief engineer be responsible for
(i) safe operation of the plant, and
(ii) supervision of other employees on his shift who are under his control;
(b) maintain close watch on the condition and repair of all equipment in the plant and report to the chief engineer any condition that may impair the safety of the plant;
(c) take all measures that are necessary to prevent any immediate danger;
(d) ensure that an accurate record of matters that may affect the safety of the plant is made and maintained at all times during the shift period;
(e) ensure that all maintenance and operational work performed on the plant is in accordance with safe operating procedures and accepted engineering practices. (EC22/80)

DUTIES OF ASSISTANT SHIFT ENGINEER

Assistant shift engineer

18. The assistant shift engineer shall be under the direction and supervision of the chief engineer or the shift engineer, as the case may be, and be responsible for
(a) the safe operation of a particular section of the plant;
(b) ensuring that an accurate record of matters that may affect the safety of that section of the plant is made and maintained at all times during the shift period;
(c) the performance of such maintenance and operational work on the plant as may be directed by the chief engineer or the shift engineer. (EC22/80)

DUTIES OF POWER ENGINEERS

Power engineer's duties

19. The duties of power engineers include the tasks and subtasks outlined in the Analysis applicable to the particular plant. (EC22/80)

OPERATIONAL REQUIREMENTS

Supervision of boiler

20. (1) Subject to subsection 1(1), in any plant when the heat source of a boiler is created by the burning of a solid fuel, the boiler shall be under continuous supervision.

Exception, automatic shut out device

(1.1) Subsection (1) does not apply when the fuel is burned in a fuel cell exterior to the boiler and automatic controls will reduce the combustion air to zero in the event of an abnormal condition.

Protective devices

(2) A boiler that is not under continuous supervision shall be provided with protective devices satisfactory to the chief inspector or his designate which may include

(a) a high pressure limiting device on a steam boiler or a high temperature limiting device on a hot water boiler, as the case may be;

(b) an independent low water cut out control which will shut off the fuel to the burner in the event of a low water condition;

(c) a prepurge and flame failure device that will automatically prevent the supply of fuel to the boiler when an abnormal condition occurs during the operation of the boiler;

(d) a high water level limiting device that controls the supply of feedwater to the boiler;

(e) an alarm system that is audible in any part of the premises on which the plant is situated and in which persons may be present.

Idem

(3) The protective devices prescribed in subsection (2) must

(a) be manually reset after shut down; and

(b) maintain the warning until the abnormal condition has been corrected.

Unattended premises

(4) A power plant or heating plant having a rating less than 100 therm hours may be left unattended and in operation for up to 8 hours if the premises are unoccupied and the plant is equipped with protective devices in accordance with this section.

Idem

(5) A refrigeration plant having a rating less than 20 therm hours may be left unattended and in operation provided the premises are unoccupied and the plant is equipped with protective devices satisfactory to the chief inspector. (EC22/80; 241/83; 69/95)

OFFENCES CONCERNING LOG BOOK

Offences concerning log book

21. (1) No person shall deface, damage or destroy a log book.

Removal of log book

(2) No person shall remove the log book from a plant without the permission of the employer.

Access to log book

(3) The employer shall ensure the log book is kept accessible in the plant for at least one year after the last entry therein and shall produce the log book upon the request of an inspector. (EC22/80)

SCHEDULE

TABLE OF FEES

1. On application for examination for a power engineer's license:
   - First Class $160
   - Second Class 120
   - Third Class 80
   - Fourth Class 40
   - Refrigeration A 80
   - Refrigeration B 40
2. On application for transfer of a license, for each 12-month period issued in another province: $20
3. On application for renewal of a license, for each 12-month period: $20
4. On application for registration of a plant:
   - First Class $160
   - Second Class 120
   - Third Class 80
   - Fourth Class 40
   - Refrigeration A 80
   - Refrigeration B 40
5. On application for re-registration of a plant: $20

(EC22/80; 143/92; 44/95; 662/04)