



**GENERAL CONDITIONS
FOR
POWER ENGINEERING EXAMINATIONS
AND
REFRIGERATION OPERATORS “A” AND “B”
AND
COMPRESSOR OPERATORS**

TABLE OF CONTENTS

	<u>PAGE</u>
1. Definitions.....	3
2. Classification.....	3
3. Applications for Examinations.....	3
4. Examinations – First Class.....	4
5. Examinations – Second Class.....	5
6. Examinations – Third Class.....	6
7. Examinations – Fourth Class.....	7
8. Examinations – Refrigeration Operation “A”.....	7
9. Examinations – Refrigeration Operation “B”.....	8
10. Examinations – Compressor Operator.....	8
11. Examinations – Additional Information.....	8
12. Certificate Renewals.....	9

The Apprenticeship and Trades Certification Division has adopted the SOPEEC (Standardization of Power Engineer's Examination Committee) guidelines (<http://www.sopec.org/>.) as the framework to govern the writing of Power Engineering examinations. The following conditions will require the approval of:

- Director of Apprenticeship & Certification
- Chairperson/Representative, Power Engineering Examination Committee
- Chairperson/Representative, Advisory Committee
- Chief Inspector, Boiler Pressure Vessel and Compressed Gas Regulations

1. DEFINITIONS

1.0 Definitions for the purpose of this document shall be as follows:

- 1.1** Approved Program – A program that will have technical content equal to the SOPEEC Syllabus/Curriculum and a practical aspect acceptable to the Apprenticeship and Trades Certification Division.
- 1.2** Prior Learning Assessment and Recognition (**PLAR**) – conducted in-class or by correspondence by an approved training institution or by Apprenticeship and Trades Certification Division personnel. Completion of an approved program from another Canadian jurisdiction will be accepted upon written verification from that jurisdiction.

2. CLASSIFICATION

2.0 Certificates of Competency are classified as:

- 2.1** Power Engineer – First Class
2.2 Power Engineer – Second Class
2.3 Power Engineer – Third Class
2.4 Power Engineer – Fourth Class
2.5 Refrigeration Operator “A”
2.6 Refrigeration Operator “B”
2.7 Compressor Operator

3. APPLICATIONS FOR EXAMINATIONS

- 3.1** Standard applications for examination can be obtained from the Apprenticeship and Trades Certification Division **or** website at <https://www.gov.nl.ca/atcd/apprenticeship-forms/>
- 3.2** Applications for approval to write must have all pertinent information included as outlined on the application or it will be returned.

- 3.3** Approval to write Power Engineering examinations is subject to review and recommendations from the Power Engineering Examination Committee of the Apprenticeship and Trades Certification Division.
Note* Attendance rates for full time studies requires a minimum of 90% for In-Class Theory and 100% for Practical Training.
- 3.4** Once an applicant has been approved to write an examination for a particular class, approval is not required to continue writing the remaining examinations, but before completing the last examination for that class of certification, confirmation of operating experience is required. This information must be contained on/or attached to the appropriate application form.
- 3.5** Candidates are requested to notify the Apprenticeship and Trades Certification Division, Industrial Training Section **two weeks** prior to writing dates if for some reason beyond his/her control; they have to cancel their application.
- 3.6** Special accommodations requests must be received **three weeks** prior to exam writing, and must include all required documentation as required by the Apprenticeship and Trades Certification Division's special accommodations provisions.
- 3.7** Applications for a "Rewrite" should indicate the Class and Paper requested.

Approval to write Power Engineering examinations is subject to Review and recommendation from the Power Engineering Examination Committee, of the Apprenticeship and Trades Certification Division.

4. EXAMINATIONS – FIRST CLASS

- 4.1** A candidate for Examination as Power Engineer – First Class shall hold a Certificate of Competency as a Power Engineer – Second Class: **and** meet one of the following criteria from 4.1A to 4.1.C
- 4.1. A** Shall be employed for a period of **5000 hours** as the Chief Power Engineer in a power plant having a capacity exceeding **12,000 Kilowatts;**
OR
- 4.1. B** Shall be employed for a period of **5000 hours** as the Shift Engineer in a power plant having a capacity exceeding **24,000 kilowatts;**
OR
- 4.1. C** Shall be employed for a period of **7000 hours** as the Assistant Shift Engineer assisting in supervising all aspects of the shift operation in a plant having a capacity exceeding **24,000 kilowatts**

- 4.2** In lieu of operating experience as outlined in **4.1 A** to **4.1 C** above, up to **2000 hours** credit may be granted on successful completion of an approved course in Power Engineering leading towards a Power Engineer's Certificate of Competency – First Class.
- 4.3** A candidate, who is employed in a registered power plant that is shut down for an extended period and is retained on plant-maintenance, will receive up to a maximum of **1000 hours** credit towards a First Class Certificate of Competency.
- 4.4** First Class examinations shall be divided into two (2) parts which consist of Part A - papers 1, 2, 3, and 4 and Part B - papers 1, 2, 3, and 4.
- 4.5** A candidate may commence writing papers for First Class Power Engineering certification after he/she has obtained a Power Engineer's Certificate of Competency – Second Class, **and** obtains employment in a plant of adequate capacity as verified by the Chief Engineer

5. EXAMINATIONS – SECOND CLASS

- 5.1** A candidate for examination as Power Engineer – Second Class shall hold a Certificate of Competency as a Power Engineer – Third Class **and** meet one of the following criteria from 5.1.A to 5.1.D
- 5.1. A** Shall be employed for a period of **4000 hours** as the Chief Power Engineer in a power plant having a capacity exceeding **3,600 kilowatts**;
- OR**
- 5.1. B** Shall be employed for a period of **4000 hours** as a Shift Engineer in a power plant having a capacity exceeding **12,000 kilowatts**;
- OR**
- 5.1. C** Shall be employed for a period of **6000 hours** as a Shift Engineer in a power plant having a capacity exceeding **3,600 kilowatts**;
- OR**
- 5.1. D** Shall be employed for a period of **4000 hours** as an Assistant Shift Engineer in a power plant having a capacity exceeding **24,000 Kilowatts**.
- 5.2** In lieu of operating experience as outlined in **5.1 A** to **5.1 D** above, up to **1500 hours** credit may be granted on successful completion of an

approved course in Power Engineering leading towards a Power Engineer's Certificate of Competency – Second Class.

- 5.3** A candidate who is employed in a registered power plant that is shut down for an extended period and is retained on plant-maintenance will receive up to a maximum of **700 hours** credit towards a Second Class Certificate of Competency.
- 5.4** Second Class examinations shall be divided into two (2) parts which consist of Part A – papers 1, 2, and 3 and Part B – papers 1, 2, and 3.
- 5.5** A candidate may commence writing papers for Second Class Power Engineering certification after he/she has obtained a Power Engineer's Certificate of Competency – Third Class, **and** obtains employment in a plant of adequate capacity as verified by the Chief Engineer

6. EXAMINATIONS – THIRD CLASS

- 6.1** A candidate for examination as a Power Engineer - Third Class shall hold a Certificate of Competency as a Power Engineer – Fourth Class and meet one (1) of the requirements as listed in 6.1.A to 6.1.D

- 6.1. A** Shall be employed for a period of **2000 hours** as the Chief Power Engineer in a power plant having the capacity exceeding **600 kilowatts**;

OR

- 6.1. B** Shall be employed for a period of **3400 hours** as a Shift Engineer in a power plant having a capacity exceeding **600 kilowatts**;

OR

- 6.1. C** Shall be employed for a period of **4000 hours** as an Assistant Shift Engineer in a power plant having a capacity exceeding **600 kilowatts**;

OR

- 6.1. D** Shall be employed for a period of **4000 hours** as the Chief Power Engineer or Shift Engineer in a heating plant having a capacity exceeding **1,800 kilowatts**.

- 6.2** In lieu of operating experience as outlined in **6.1 A** to **6.1 D** above, up to **1000 hours** credit may be granted on successful completion of an Approved course in Power Engineering leading towards a Power Engineer's Certificate of Competency – Third Class.

- 6.3** A candidate who is employed in a registered power plant that is shut down for an extended period and is retained on plant-maintenance, will receive up to a maximum of **400 hours** credit towards a Third Class Certificate of Competency.
- 6.4** Third Class examinations shall be divided into two (2) parts which consist of Part A – papers 1 and 2 and Part B – papers 1 and 2.
- 6.5** A candidate may commence writing papers for Third Class Power Engineering certification after he/she has obtained a Power Engineer's Certificate of Competency Fourth Class and obtains employment in a plant of adequate capacity as verified by the Chief Engineer **or** he/she has obtained a Power Engineer's Certificate of Competency Fourth Class and has completed adequate instruction in Power Engineering, acceptable to the Apprenticeship and Trades Certification Division.

7. EXAMINATIONS – FOURTH CLASS

- 7.1** A candidate for examination as a Power Engineer - Fourth Class will be required to complete an approved program that contains technical content equal to the SOPEEC Syllabus/Curriculum, and a practical aspect acceptable to the Apprenticeship and Trades Certification Division.
- 7.2** Fourth Class examinations consists of two (2) papers, Part A and Part B.

8. EXAMINATIONS – REFRIGERATION OPERATOR “A”

- 8.1** A candidate for examination as a Refrigeration Operator “A” shall hold a Refrigeration Operator “B” or Fourth Class Certificate of Competency; **and** Shall have **4000 hours** operating experience on a regular shift in the engine room of a registered Refrigeration plant of over **450 kilowatts** or **750 kilowatts** when a plant uses only group A1 Refrigerants.
- 8.2** Refrigeration Operator “A” examination consists of two (2) papers, Part A and Part B.

9. EXAMINATIONS – REFRIGERATION OPERATOR “B”

- 9.1** Shall have completed an approved Refrigeration “B” program and have a minimum of **1000 hours** experience in an operating plant of over **75 kilowatts** or over **450 kilowatts** when a plant uses only group A1 Refrigerants.
- 9.2** Refrigeration Operator “B” examination consists of two (2) papers, Part A and Part B.

10. EXAMINATIONS – COMPRESSOR OPERATOR

- 10.1** A candidate for a Compressor Operators’ examination shall have completed an approved program.
- 10.2** Compressor Operator examination consist of one (1) paper

11. EXAMINATIONS – ADDITIONAL INFORMATION

- 11.1** All papers require a pass mark of sixty-five percent (65%).
- 11.2** An applicant for examination for a Certificate of Competency shall complete a Power Engineering application form providing details of all operating experience and training relative to the examination for which he/she is a candidate.
- 11.3** All applicants must satisfy the requirements as required by the Examination Committee and the requirements as outlined in Sections 4, 5, 6, 7, 8, 9, and 10 before being eligible to write examinations.
- 11.4** Only the Invigilator and the candidates are permitted in the examination room during examinations.
- 11.5** Candidates must provide picture identification before writing an examination.
- 11.6** Candidates shall use, whenever possible, sketches to support or supplement written answers.
- 11.7** During examinations candidates are not permitted to talk to each other, leave the room without permission, use personal notes or remove examination questions from the exam room.
- 11.8** Candidates shall return all examinations, score sheets, working or scrap material to the Examiner/Invigilator before leaving the exam room.
- 11.9** For violation of the above examination rules, candidates will be

subject to penalties recommended by the Power Engineering Examination Committee.

- 11.10** Candidates who fail an examination paper on three (3) occasions below forty-five percent (45%), will be required to wait three (3) months before writing the failed exam.
- 11.11** Candidates may apply to have a Prior Learning Assessment and Recognition (**PLAR**) of relevant training completed in other Provincially approved programs. Credits will be awarded according to the outcome of such as assessment.
- 11.12** A candidate requesting a re-read of their examination, must submit a letter and forward it to the Chief Examiner. The re-read will be conducted by members of the Examination Committee.

Re-reads and appeals requests must be received by the Apprenticeship and Trades Certification Division within the time frame of one (1) month from date of notification to the candidate of the results of the examination in question.

- 11.13** A candidate requesting an appeal of their examination shall submit a letter and forward it to the Chief Examiner accompanied by the appropriate fee. An independent evaluator will review the examination in question and the assessment will be final. An appeal **will not** be approved for a candidate who has received an evaluation of fifty percent (50%) or less in an exam.
- 11.14** In addition to the conditions of Section 11, examination guidelines as outlined by SOPEEC will be adhered to.

12. CERTIFICATE RENEWALS/EXCHANGES

- 12.1** A Certificate of Competency is renewable for a five (5) year period from the date of expiry.
- 12.2** Where a Certificate of Competency has been lost, a duplicate may be issued after payment of the appropriate fee.
- 12.3** It is the responsibility of the certificate holder to have it renewed and no notification will be issued.
- 12.4** A person residing in the province of Newfoundland and Labrador who holds any class of a Provincial Certificate of Competency of current issue by another jurisdiction in Canada, may obtain an equivalent certificate without examination subject to review and recommendation by the Power Engineering Examination Committee and payment of the appropriate fee. An opportunity will also be

provided for this person to write a standardized exam.

- 12.5** A person residing in the province of Newfoundland and Labrador who holds any class of a Standardized Certificate of Competency of current issue by another jurisdiction in Canada, may obtain an equivalent certificate without examination subject to verification and submitting the appropriate fee.
- 12.6** A person who holds a Marine Engineering/Military-Marine Engineering or Foreign Qualification may be eligible for equivalencies under National SOPEEC policy, subject to review and approval by the Provincial Power Engineering Examination Committee.