

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

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The Department of Education 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 Institutional and Industrial Education
- 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 a technical content equal to the National Occupational Analysis and a practical aspect acceptable to the Department of Education.
- 1.2 Prior Learning Assessment and Recognition (**PLAR**) – conducted in-class or by correspondence by an approved training institution or by the Department of Education 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 Plant Operator "A"
2.6 Refrigeration Plant Operator "B"
2.7 Compressor Operator

3. APPLICATIONS FOR EXAMINATIONS

3.0 Applications for Power Engineering examinations can be obtained from any District office of the Industrial Training Unit, Department of Education or website <http://www.ed.gov.nl.ca/app/>.

- 3.1 Approval to write Power Engineering examinations is subject to review and recommendation from the Power Engineering Examination Committee of the Department of Education.
- 3.2 Applications for approval to write shall have all pertinent information included as outlined on the application or it will be returned.
- 3.3 Applications for a "Rewrite" should indicate the Class and Paper requested.
- 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 Department of Education, Industrial Training Section, **two weeks** prior to writing dates if, for some reason beyond their control, they have to cancel their application.

4. EXAMINATIONS – FIRST CLASS

- 4.1 A candidate for examination for a Certificate as Power Engineer First Class shall hold a Certificate as a Power Engineer Second Class: and
 - 4.2 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**
- 4.3 Shall be employed for a period of **5000 hours** as a Shift Engineer in a power plant having a capacity exceeding **24,000 kilowatts;**
- OR**
- 4.4 Shall be employed for a period of **7000 hours** as an Assistant Shift Engineer assisting in supervising all aspects of the shift operation in a plant having a capacity exceeding **24,000 kilowatts.**

- 4.5** In lieu of operating experience as outlined in **4.2, to 4.4** above, **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.
- 4.6** A candidate who is employed in a registered power plant that is shut down for an extended period and is retained on plant-maintenance, may receive up to a maximum of **1000 hours** credit towards a First Class Certificate of Competency.
- 4.7** 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.
- 4.8** A candidate may commence writing papers for First Class Power Engineering after he/she has obtained a Power Engineer's Certificate of Competency – Second Class.

5. EXAMINATIONS – SECOND CLASS

- 5.1** A candidate for examination for a Certificate as a Power Engineer – Second Class shall hold a Certificate of Competency as a Power Engineer – Third Class, and
- 5.2** Shall be employed for a period of **4000 hours** as the Chief Power Engineer in a power plant having the capacity exceeding **3,600 kilowatts**;
- OR**
- 5.3** 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**
- 5.4** 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**
- 5.5** 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**.

- 5.6** In lieu of operating experience as outlined in **5.2** to **5.5** above, **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.
- 5.7** A candidate who is employed in a registered power plant that is shut down for an extended period and is retained on plant-maintenance may receive up to a maximum of **700 hours** credit towards a Second Class Certificate of Competency.
- 5.8** 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.
- 5.9** A candidate may commence writing papers for Second Class Power Engineering after he/she has obtained a Power Engineer's Certificate of Competency – Third Class.

6. EXAMINATIONS – THIRD CLASS

- 6.1** A candidate for examination for a Certificate 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 6.2 to 6.6.
- 6.2** 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**
- 6.3** Shall be employed for a period of **3400 hours** as a Shift Engineer in a power plant having a capacity exceeding **600 kilowatts;**
- OR**
- 6.4** 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**
- 6.5** 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**.

OR

- 6.6** Have completed an approved program in Mechanical Engineering Technology as approved by the Department of Education.
- 6.7** In lieu of operating experience as outlined in **6.2** to **6.5** above, **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.
- 6.8** A candidate who is employed in a registered power plant that is shut down for an extended period and is retained on plant-maintenance may receive up to a maximum of **400 hours** credit towards a Third Class Certificate of Competency.
- 6.9** 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.
- 6.10** A candidate may commence writing papers for Third Class Power Engineering after he/she has obtained a Power Engineer's Certificate of Competency – Fourth Class.

7. EXAMINATIONS – FOURTH CLASS

- 7.1** A candidate for examination for a Certificate as a Power Engineer - Fourth Class will be required to complete an approved program that contains technical content equal to the National Occupational Analysis and a practical aspect acceptable to the Department of Education.
- 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 for a Certificate as a Refrigeration Operator “A” shall hold a Refrigeration Operator “B” or Fourth Class Certificate of Competency; and

- 8.2 Shall have **4000 hours** operating experience on a regular shift in the engine room in a registered Refrigeration plant of over **450 kilowatts** or **750 kilowatts** when a plant uses only group A1 Refrigerants.
- 8.3 Refrigeration Operator "A" examination consists of two (2) papers, Part A and Part B.

9. EXAMINATIONS – REFRIGERATION OPERATOR "B"

- 9.1 A candidate for examination for a Certificate as a Refrigeration Operator "B" 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 examination for a Compressor Operators' Certificate shall have completed an approved program.
- 10.2 Compressor Operator examinations consist of two (2) papers, Part A and Part B.

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 and shall provide themselves with pens and pencils.
- 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 other candidates, leave the room without permission, use personal notes, or remove examination questions from the room.
- 11.8** Ensure all cell phones and pagers are turned off and collected, and returned after exams are completed.
- 11.9** Candidates shall return all examinations, score sheets, working or scrap material to the Examiner/Invigilator before leaving the exam room.
- 11.10** For violation of **11.7**, **11.8** and **11.9** examination rules, candidates will be subject to penalties recommended by the Power Engineering Examination Committee.
- 11.11** 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.
- 11.12** 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.
- 11.13** A candidate requesting a re-read of his/her examination, shall submit a letter and forward it to the Chief Examiner of the Department of Education. The re-read will be conducted by members of the Examination Committee.
- Re-read and appeal requests shall be received by the Department of Education within the time frame of one (1) month from date of notification to the candidate of the results of the examination in question.
- 11.14** A candidate requesting an appeal of his/her examination shall submit a letter and forward it to the Chief Examiner of the Department of Education accompanied by the appropriate fee. An independent evaluator will review the examination in question and the assessment will be final. A candidate who has received an evaluation of fifty percent (50%) or less will not be eligible for an appeal.

- 11.15** In addition to the conditions of Section 11 examination guidelines as Outlined by SOPEEC (www.sopec.org) will be adhered to.

12. CERTIFICATE RENEWALS

- 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 their certificate 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 paying the appropriate fee.
- 12.6** A person residing in the province of Newfoundland and Labrador who holds a First, Second, Third or Fourth Class Steam or Combined Certificate, issued under the Canada Shipping Act, may qualify for Examination in the equivalent class subject to conditions outlined in Appendix A.
- 12.7** A person residing in the Province who has completed a Power Engineering course under the Canadian Armed Forces Program, may be qualified for examination subject to conditions outlined in Appendix B.

APPENDIX A

Marine Engineers who hold a valid First Class Steam or Combined Certificate:

- Will be eligible to write the First Class Interprovincial examination, subject to the requirements of Section 4 for practical experience and a review by the Examination Board.
 - An approved candidate may be issued a Second Class Provincial Certificate without examination.
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Marine Engineers who hold a valid Second Class Steam or Combined Certificate:

- Will be eligible to write the Second Class Interprovincial examination, subject to the requirements of Section 5 for practical experience and a review by the Examination Board.
 - An approved candidate may be issued a Third Class Provincial Certificate without examination.
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Marine Engineers who hold a valid Third Class Steam or Combined Certificate:

- Will be eligible to write the Third Class Interprovincial examination, subject to the requirements of Section 6 for practical experience and a review by the Examination Board.
 - An approved candidate may be issued a Fourth Class Provincial Certificate without examination.
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Marine Engineers who hold a valid Fourth Class Steam or Combined Certificate:

- Will be eligible to write the Fourth Class Interprovincial examination, subject to the review by the Examination Board.
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APPENDIX B

Canadian Armed Forces Personnel who have:

- GL7 formal training for six (6) months
- Employment in DND Central Heating Plants which satisfies the requirement of Section 4

Will be eligible to write the First Class Interprovincial examination or issued a Provincial Second Class Certificate.

Canadian Armed Forces Personnel who have:

- QL6A formal training for three point five (3.5) months
- Employment in DND Central Heating Plants which satisfies the requirement of Section 5

Will be eligible to write the Second Class Interprovincial examination or issued a Provincial Third Class Certificate.

Canadian Armed Forces Personnel who have:

- QL5 formal training for four point two five (4.25) months
- Employment in DND Central Heating Plants which satisfies the requirement of Section 6

Will be eligible to write the Third Class Interprovincial examination or issued a Provincial Fourth Class Certificate.

Canadian Armed Forces Personnel who have:

- QL3 formal training for six (6) months
- QL4 formal on-the-job training program for twenty-one (21) months
- Employment in DND Central Heating Plants which satisfies the requirement of Section 7

Will be eligible to write the Fourth Class Interprovincial examination.
