

ROLPHTON  
NUCLEAR TRAINING CENTRE

COURSE PI 25

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NUCLEAR TRAINING COURSE

COURSE PI 25

HEAT AND THERMODYNAMICS

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Heat and Thermodynamics - Course PI 25

COURSE PROCEDURES

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PI 25, Heat and Thermodynamics, is a self-pacing course designed to give you some basic concepts, terms, and skills that will be useful to you mainly as support for other initial training courses. You will also find that many of the concepts presented in this course will be useful as basics during your career in the Nuclear Generation Division of Ontario Hydro.

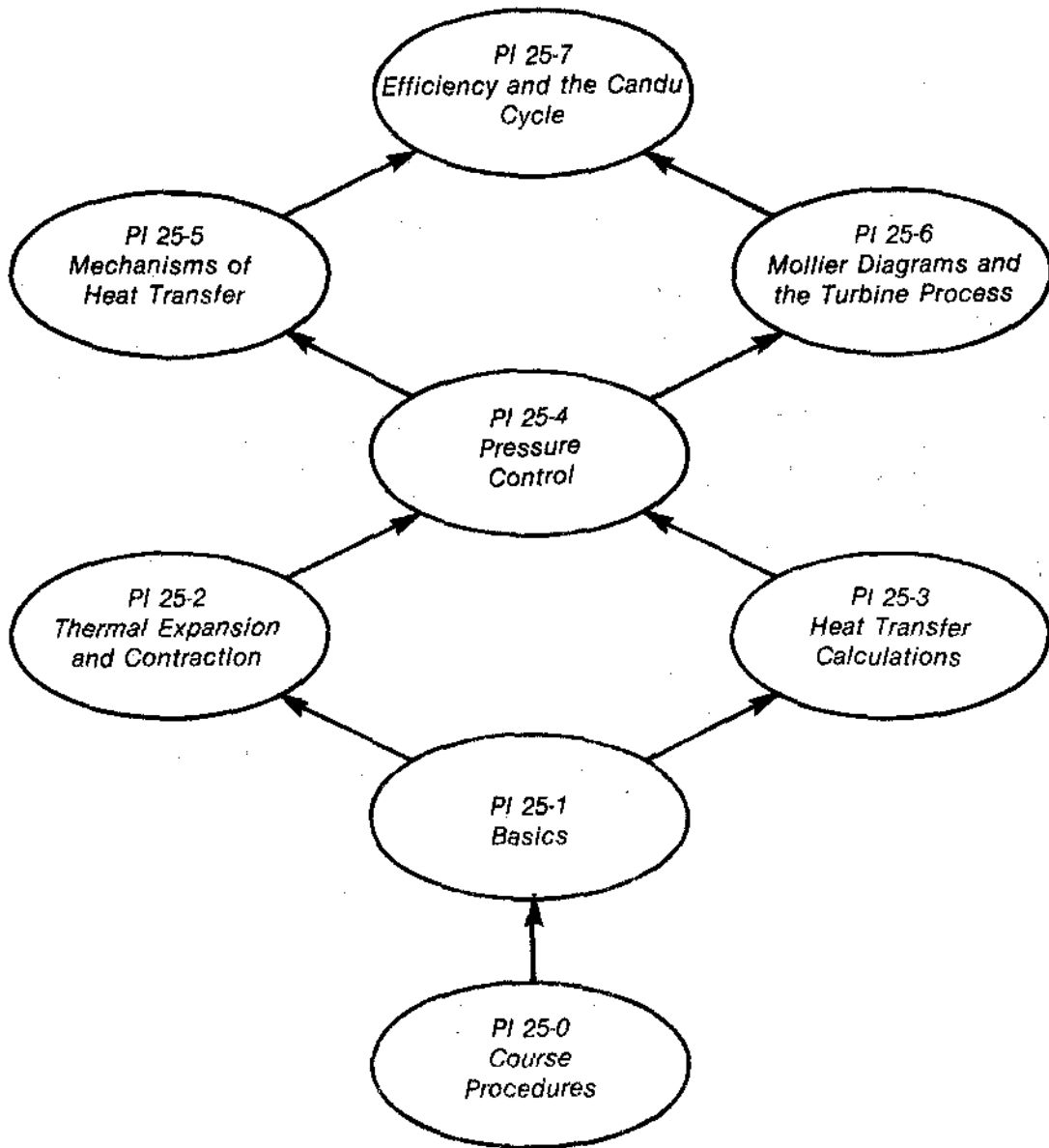
There are 8 modules in the course (including this course procedures module); they are listed on the cover sheet which is the first page of the course materials.

You should proceed according to the course map shown on page 2, that is, start with this module, then proceed to module PI 25-1. After you have completed module 1 (as outlined below) you may proceed to either module PI 25-2 or PI 25-3. You must complete both modules PI 25-2 and PI 25-3 before you proceed to module PI 25-4, ie, you must do all the prerequisite modules as shown on the course map before moving upwards on the map. Once you have satisfactorily completed Module PI 25-7 you will be issued a credit in PI 25.

A module consists of six parts:

1. Objectives - these tell you exactly what you must be able to do to satisfactorily complete the module.
2. Text - this gives you enough information so that you are able to practise the performance called for in the objectives.
3. Assignment Questions - these are questions that should give you enough practice so that you can perform the objectives satisfactorily.
4. Text Answers - these are suggested answers to the assignment questions that you can use to correct your assignment answers.
5. Criterion Test - this is used to test exactly the objectives given at the beginning of the module.

PI 25 COURSE MAP



6. Self Evaluation - these are suggested answers to the criterion test questions, so that you and the course manager (if available) can diagnose any problem areas that may occur.

Now, answer the following question: "Will there be an instructor's (course manager's) assistance available to you while you study the course?"

If your answer to this questions is "YES", then skip to section B on page 4.

If your answer is "NO", read section A immediately below.

#### A. INSTRUCTOR'S ASSISTANCE UNAVAILABLE

After reading this section, you should proceed with each of the other modules as follows:

1. Read the objectives. If you are confident you can perform exactly as they state, then take the criterion test corresponding to the module. You can find all criterion tests at the end of the course notes.
2. If you are not sure that you can do the tasks the objectives call for, you should start reading through the module. As you progress through the module you will encounter directions. They are marked by using an arrow (→), and they normally deal with assignment questions.
3. Do the assignment questions in accordance with the directions.
4. Check each of your answers to the assignment questions with the corresponding suggested answer in the "TEXT ANSWERS" section. Each module has its "TEXT ANSWERS" immediately following the module text. Make sure that you do enough assignment questions so that you become confident you can complete the criterion test correctly.
5. Once you are confident, complete (from memory unless otherwise stated) the criterion test corresponding to the module.

6. Find, at the very end of the course notes, the self-evaluation corresponding to the module. Compare your answers to those in the self-evaluation. If you find any discrepancies between the content of your answers and those in the self-evaluation, think the subject matter over once more before you conclude that you are competent. You may also consider consultation with your supervisor and/or workmates.
  
7. If you are happy with your answers, proceed to the next module according to the course map. After having completed module PI 25-7, collect all the criterion tests and give (mail) them to the training person responsible for this course at the site training centre (ie, ENTC, RNTC, or WNTC). Candidates at Head Office should mail the criterion tests to RNTC. Do not forget to do this otherwise you will not be issued a credit in this course.

You are now ready to begin Module PI 25-1. Proceed at a pace that is comfortable to you and enjoy studying.

#### B. INSTRUCTOR'S ASSISTANCE AVAILABLE

The first thing you should do is to remove the last section of the notes which contains a set of criterion tests and self-evaluations. Give this set to the course manager. He will administer these tests and self-evaluations so that you will get each of them at a proper time. This will enable the course manager to monitor your progress, check your answers, and provide you with additional assistance if necessary.

Then, after reading the remaining portion of this section you should proceed with each of the other modules as follows:

1. Read the objectives. If you are confident you can perform exactly as the objectives state, then consult with the course manager. The manager will ask you a few questions to ensure that you are ready for the criterion test. Once satisfied, he will give you the test.
  
2. If you are not sure that you can do the tasks that the objectives call for (or if you have not satisfied the course manager that you are ready for the test), you should start reading through the module. As you progress through the module you will encounter directions. These directions are marked by using an arrow (—→),

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3. Do the assignment questions in accordance with the directions.
4. Check each of your answers to the assignment questions with the corresponding suggested answer in the "TEXT ANSWERS" section. Each module has its "TEXT ANSWERS" immediately following the module text. Make sure that you do enough assignment questions so that you become confident you can complete the criterion test correctly. If you have done all the assignment questions in a module and you are not confident, consult with the course manager for more practice.
5. Once you are confident, obtain a criterion test and complete it (from memory unless otherwise started).
6. Obtain the self-evaluation and compare your answers to those in the self-evaluation, noting any discrepancies.
7. Show your test to the course manager and discuss the discrepancies that you have noted.
8. At this point the course manager will either sign you off on the module checklist or he will diagnose some problems and give you directions to enable you to meet the objectives satisfactorily.
9. Once the module is signed off, proceed to the next module according to the course map.

You are now ready to begin Module PI 25-1. Proceed at a pace that is comfortable and that will allow you to complete the course in the allotted time.

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