

**INSTRUCTIONAL MATERIAL
IN
POWER PLANT ENGINEERING**

**A Special Problem
presented to**

**Engr. Rex C. Casiple
Professor
School of Graduate Studies
Central Philippine University
Jaro, Iloilo City**

**In partial fulfillment of the requirements
of Master in Engineering Education with
specialization in Mechanical Engineering.**



**Arnulfo M. Distor
September 25, 1992**

P R E F A C E

This manual was originally intended as a supplement to the very excellent textbook, "Power Plant Engineering" by F.T. Morse. But recognizing the needs for the presentation of the principles and the formulas involved in such solutions, the undersigned decided to include both theories and solutions to problems, but no attempt to changes has been made to the presentation, because that would implicate the standard textbook by F.T. Morse. The primary aim of this manual is to provide the student in acquiring a more thorough and comprehensive knowledge in this basic field as well as invaluable assistance from time he studies on the subject in Power Plant as undergraduates.

The student is strongly advised to read the discussion of the subject matter at the beginning of each chapter. In them,, he will find several hints, and classification of several basic principles so important to an effective teaching. By presenting here several solved problems from other textbooks, since the problem solved here, have been presented in much detailed forms. Likewise, the users are advised to pay careful attention to the explanation and notes.

To avoid confusion, the undersigned, as much as possible uses only equations and formulas from textbook by F. Morse. If it would not possible to do so, the sources are carefully stated and so, so would not possible ones in many cases, for the same problems, other assumptions, formulas can be equally proven correct. Therefore, to get the most out of this manual, the student try to solve some of the problems contained herein, without first reading the solution and should not attempt to memorize the solutions, but instead try to understand the basic principles involved.

The undersigned, wishes to acknowledge and express his sincere gratitude and appreciation to all those who have extended their support, guidance and assistance in the preparation of this study. To my mentor, ENGR. REX C. CASIPLE, for his advise and correction in the completion of this study. My special thanks, to wit;

- *Dr. Elma Heradura - Dean, School of Graduate Studies, CPU
- *Engr. Walden S. Rio - Dean, College of Engineering, CPU
- *Mr. Edwin R. Garcia - President/Dean, Garcia College of Technology
- *Mr. Rodillo L. Policarpio - President, Aklan Polytechnic Institute
- *Mr. & Mrs. Arlincito M. Quindor, Engr. & Mrs. Carlito M. Quindor, my brothers, sisters, brothers-in-law and sisters-in law.
- *to my wife, VIOLY, and to my children, JHUN and ARVI for the help and inspiration they have shown me.
- *the ALMIGHTY GOD, who gave me strength, patience and determination to finish this challenging self-fulfilling task.

ARNULFO M. DISTOR
Head, M.E. Department
Garcia College of Technology

Kalibo, Aklan
September 25, 1992