



Combined Cycle Fundamentals

Course DESCRIPTION (4½ Days)

This instructor-led course is designed to discuss the principles associated with the operation of combined cycle power plants. The fundamentals of plant operation(s) are emphasized. The discussions also target the role the operating staff plays in optimizing plant operations.

Prerequisites

Students should understand the essential functions of a power plant.

Who Should Attend?

This course is designed for plant operators and managers in the power industry, but will be of interest to personnel with management, operations, maintenance or supervisory experience who wish to learn more about combined cycle power plants. System operators/dispatchers will also find the course material beneficial for system operations and planning.

Course CONTENT

- Power Plant Thermodynamic Principles
- Combined Cycle Power Generation
- Gas Turbine/Generator
- Heat Recovery Steam Generator (HRSG)
- Steam Turbine/Generator
- Auxiliary Systems
- Combined Cycle Plant Controls
- Combined Cycle Plant Operation
- Print Reading

Course OBJECTIVES

At the end of this course, students should be able to:

- Discuss the laws of thermodynamics and energy conversion
- Use a steam table to look up the properties of steam and water
- Explain the primary flow paths for fuel, air, steam, cooling water, and power
- Discuss the general purpose and basic operation of various plant systems
- Describe the purpose and primary function of each major component
- Discuss the sequence of events for a plant start-up and shutdown
- Discuss current trends in combined cycle generation



REGISTRATION

Customized classes and site-specific training are available. Call GP Strategies™ Energy Services for pricing and course details. To obtain more information, visit us online at <http://fossilfuelcourses.gpstrategies.com/reg/> or call 800.803.6737.

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