GP STRATEGIES™

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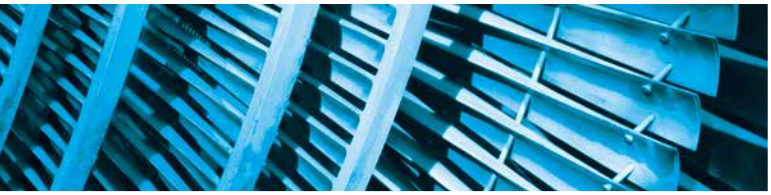
Performance Knowledge™ Series



Combined Cycle Plant Performance

Course DESCRIPTION (2½ Days)

This 2½-day course is focused on improving the availability, reliability, capacity, and efficiency of the combined cycle power plant. It teaches attendees how to diagnose root causes of combined cycle power plant performance deficiencies using a case study-based approach. Diagnostic flowcharts are provided and used interactively for the solutions to the case studies.

Prerequisites

Basic understanding of power plant thermodynamics and operations.

Who Should Attend?

This course is designed for experienced combined cycle operators, supervisors, engineers, and management personnel.

Course CONTENT

- Introduction to Combined Cycle Plant Performance
- Introduction to Heat Rate, Efficiency, and Enthalpy
- Gas Turbine Component Design and Function
- Gas Turbine Control and Protection
- Gas Turbine Operation and Performance Monitoring
- Heat Recovery Steam Generator (HRSG)
- Power Plant Thermdynamics
- Brayton Cycle Performance
- Rankine Cycle Performance
- Rankine Cycle Equipment Performance
- Evaluating and Troubleshooting Combined Cycle Performance

Course OBJECTIVES

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

- Identify and diagnose root causes of capacity and efficiency degradation
- Quantify the benefits of performance recovery

Course MATERIALS

The textbook *Combined Cycle Plant Performance* with troubleshooting flowcharts, is provided.

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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