GP STRATEGIES™

Knowledge. Performance. Impact.

Operations Knowledge™ Series



Simulator-Based Coal-Fired Plant Operations Overview With Boiler Tube Failure Diagnostics

Course DESCRIPTION (5 Days)

This instructor-led course is designed to discuss the principles associated with the operations of conventional coal-fired power plants as well as provide guidance in evaluating key indications of boiler tube failures. This course emphasizes the fundamentals of plant operations and addresses the elements of properly identifying and locating boiler tube leaks. The discussions and use of a simulator target the role that operating staff plays in optimizing plant operations. This course can be customized at no additional cost for operators, or engineers and managers

Prerequisites

Students should understand basic power plant operations.

Who Should Attend?

This course is designed for operators, engineers and managers in the power industry but will be of interest to anyone with operations, maintenance, or supervisory experience who wishes to learn more about coal-fired operations and boiler tube failure diagnostics.

Course CONTENT

- Normal Plant Operation
- Standard System Flow Paths
- Typical Coal-Fired Plant Equipment
- Current and Previous Industry Concerns
- Environmental Issues
- Operational Issues
- Performance Issues
- Overview of Drum Boiler Tube Leaks
- Causes of Boiler Tube Leaks
- Demonstration Drum Unit Specifications
- Boiler Tube Leak Assessment
- Waterwall Tube Leak
- Economizer Tube Leak
- Superheater Tube Leak
- Reheater Tube Leak
- Recognizing a Tube Failure

Course OBJECTIVES

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

- Explain the characteristics and flow paths of a coal-fired plant
- Describe all major plant systems
- Identify the sequence of major events during plant startup and shutdown
- Discuss current coal-fired plant activities, trends, and technologies
- Use the high-fidelity coal-fired simulator to start the plant from cold conditions, operate the plant over various load conditions, and shut down the plant
- Determine if a tube leak exists
- Identify where the leak is most likely to be located
- Estimate the extent of the leakage
- Determine factors for subsequent actions

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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