

Limited Space...
So sign-up today!
www.stormeng.com

(2) Day - Fundamentals Course:

- Welcome and Introduction
 - Review of the Course Objectives
 - Review of Acronyms
- Basic Steam Generation and Boiler Fundamentals
 - Typical water/steam flow path
 - Typical air/flue gas path
- Boiler Design
 - The Evolution of Steam Generators
 - Sub-Critical Units
 - Super-Critical Units
- Basic Combustion Theory
 - Carbon – CO₂
 - Hydrogen – Water
 - Sulfur – SO₂
- Basic Coal Properties
- Basic Pulverizer Overview
- Basic Overview of Burners
 - Conventional – Ultra Low NO_x burner designs
- Typical Plant Challenges
 - Understanding why it's important to measure performance
 - Economic case study
- Use of Comprehensive Diagnostic Testing Equipment and Procedures
- Applying the 13 Essentials
- Basic Combustion Airflow Management and Understanding - Air In Leakage
- The Basics of how to apply the total comprehensive approach
 - Example of how to set up a comprehensive boiler optimization program for combustion optimization and heat rate improvement

(2) Day - Advanced Course:

- Welcome and Introduction
 - Review of the Course Objectives
- Overview of the Fundamentals Course
- Boiler Design
 - Steam Cycle Overview
 - Sub-Critical Units
 - Super-Critical Units
 - Understanding Fire Side and Steam Side Compatibility
- Identification and Understanding of Boiler Efficiency and Controllable Heat Rate Factors
- Understanding Fuel and Ash Quality Impacts on Combustion and System Performance
 - Environmental
 - Reliability
 - Efficiency and CO₂ Emissions
- Fuel Loading, Capacity and the Relationship with Mill and Burner Performance
- Low NO_x Firing
 - Burner Design and Theory
 - Combustion Airflow Management & Control
 - The Solid Fuel Injection Systems Approach
- Review of Environmental Control Systems and Industry Challenges
 - Inter-Relationships of the Fundamentals with back end control equipment performance
 - Air in-leakage
 - Water wall wastage and tube reliability
- Circulating Fluidized Bed Boilers
- Oil and Gas Firing
- Review of Efficiency, Heat Rate and Plant Optimization Techniques
- Case Studies
- Energy, Economics and the Environment

\$985 per person
10% off groups of 5 or more



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NEW 2 Day Short Courses!
Fundamentals and Advanced Courses
Large Electric Utility Boiler Combustion
and Performance Optimization

Instructors:

Richard F. (Dick) Storm - CEO of Storm Technologies, Inc., is a registered P.E. with over 40 years experience in the industry. Experience has been accumulated as a results and start-up engineer for OEM's, as a principal engineer and superintendent of operations for a major utility and as a department head for a technical services department of a boiler maintenance contractor. These experiences preceded the last 16 years at Storm Technologies, Inc.

Stephen Storm is the Executive V.P. and head of Storm Technologies, Inc. Technical Field Services/Sales and Marketing. Stephen has worked throughout the United States and overseas with many service projects and has a passion for achieving boiler performance results. Stephen has authored and co-authored numerous technical publications and magazine articles for the industry, and over the last decade has been involved in numerous combustion optimization, heat rate and environmental projects.

Therefore, the topics presented and discussed are done from a perspective of design, best operation, maintainability, objectivity and with a practical focus on getting the most cost-effective RESULTS!

2 Locations

for the upcoming short courses

(2) Day Fundamentals Location:

**JW Marriott Las Vegas
Resort & Spa**

221 N Rampart Blvd.

Las Vegas, NV 89145

Phone: 1-800-297-5056

Fax: (702) 352-9059

Date: June 10-11, 2009

Time: 7:00am to 3:00pm

(2) Day Advanced Location:

**Charlotte Marriott
SouthPark**

2200 Rexford Road

Charlotte, NC 28211

Phone: (704) 364-8220

Fax: (704) 554-8319

Date: July 15-16, 2009

Time: 7:00am to 3:00pm

Our Large Combustion Optimization Course is a one of a kind course that has been presented to thousands of people worldwide. This course is approved by the N.C. and Florida boards of registration for engineers continuing professional development hours.

**Participation in this short course
is by invitation only**

Registration:

To secure a seat for the seminar, please fill out the bottom information and either e-mail, fax, or mail your entry in. For any further information, please feel free to call the office at (704) 983-2040.

Name(s) _____

Title(s) _____

Company and Plant _____

Address, City, State, Zip _____

Telephone No. _____

Fax No. _____

E-Mail: _____

Method of Payment: Company Purchase Order, Check, or Credit Card (MasterCard/Visa)

PO _____ Credit Card No. _____

Expiration Date _____ Type of Card _____

Note: If claiming PDH's, please enter PE License No. _____

Please Specify which Short Course you would like to attend: _____

Specific Questions/Interests _____

Cost: \$985.00 per person.

Cost includes: Seminar materials, breakfast, lunch and snacks for each day (Hotel, transportation, and other meals not included).