Texas Industries of the Future

US DOE BESTPRACTICES STEAM END USER WORKSHOP

Wednesday, February 1, 2012

8:00 a.m. to 4:00 p.m.
Houston Business Roundtable
8031 Airport Blvd Suite 118 Houston, Texas 77061

Register by January 16 to receive an Early Bird Discount

General summary:

The US DOE's BestPractices Steam End User Training covers the operation of typical steam systems and discusses methods of system efficiency improvement. The training is designed for end users – at the energy manager, steam system supervisor, engineer, and operations level – who have steam system responsibilities in industrial and institutional plants. The course is divided into three major categories:

- Steam Generation Efficiency
- Resource Utilization Effectiveness
- Steam Distribution System Losses

The course also introduces the major steam opportunity assessment tools developed and utilized by BestPractices Steam. The major text for the End User training is the Steam System Survey Guide, a technical reference document developed by BestPractices Steam. The End User training also introduces the Steam System Assessment Tool (SSAT), and a number of the course examples are presented using the SSAT. Finally, the training introduces the 3E-Plus insulation appraisal software and a course example is presented that uses this software.

Course Agenda:

Introduction: The Boiler and Steam System
The Steam System Scoping Tool: Overview and Results
Steam Generation Efficiency: Definitions and Measurements
Break
Steam Generation Efficiency: Shell Loss
Steam Generation Efficiency: Blowdown Loss
Break
Steam Generation Efficiency: Stack Losses
Steam Generation Efficiency: Boiler Analysis Case Studies
Lunch
Resource Utilization Effectiveness: Fuel Selection
Resource Utilization Effectiveness: Backpressure Turbine Operation
Resource Utilization Effectiveness: Condensing Turbine Operation
Break
Distribution System Management: Steam Leaks
Distribution System Management: Steam Traps
Break
Distribution System Management: Insulation
Distribution System Management: Condensate Recovery
Summary and Adjourn

Course Objectives:
At the completion of the Steam System course, participants will be able to:

- Identify the measurements required to manage boiler efficiency
- Measure boiler efficiency
- Estimate the magnitude of specific boiler losses
- Identify and prioritize areas of potential boiler efficiency improvement
- Recognize the impacts of fuel selection
- Characterize the operational impact of backpressure steam turbines
- Characterize the operational impact of condensing steam turbines
- Recognize the requirements of an appropriate steam trap management program
- Evaluate the effectiveness of system insulation
- Evaluate the primary economic impact of condensate recovery
- Recognize the economic impact of all aspects of steam system operation

PDH Credits: Attendees will be issued a certificate for 7 hours of PDH credits.

Instructor: Mr. Papar is a Registered Professional Engineer (Mechanical Engineering) and a Certified Energy Manager. He is also a DOE Qualified Steam System Specialist and a Senior Instructor for the US DOE Steam BestPractices Training Program. Mr. Papar specializes in Performance Monitoring & Optimization of Energy Systems to reduce operating costs and environmental emissions. He has almost 20 years of Industrial Energy infrastructure experience and BestPractices for Energy Asset Management. He has been involved in project engineering and management for process and utility systems in refineries, chemical plants, and manufacturing facilities. Mr. Papar has a M.S. (ME) from the University of Maryland, College Park and a B.S. (ME) from the Indian Institute of Technology, Mumbai. He is also an author of several Technical Publications in Journals, Conference Proceedings, and trade magazines.

Sponsors: Texas Industries of the Future, US Department of Energy Office of Energy Efficiency and Renewable Energy, State Energy Conservation Office of the Texas Comptroller of Public Accounts, Houston Business Roundtable.

Cost:
Early Bird Discount. Register by Jan 16, 2012: $65 Late Registration, after Jan. 16: $80

BESTPRACTICES STEAM END USER WORKSHOP FORM

8:00 a.m. – 4:30 p.m.	**HBR Office** **8031 Airport Blvd Ste 118**	**Feb. 1,** **2012**	**Fee: $ 65 – Before Jan. 16** **$80 After Jan. 16**

Registration Due by December 1st Fax reservation to 713-645-2812 or Email msaulter@houbrt.com

Name _____

Company _____

Telephone _____

Mailing Address _____

E-mail _____

Mail Check to: Houston Business Roundtable 8031 Airport Blvd. Ste 118 Houston, TX 77061

Bill Us ***(HBR Members Only)*** _____

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We accept VISA/MasterCard/American Express/Discover Only

To cancel a reservation, please contact HBR no later than Jan. 25th or you will be charged for the workshop.