

REGISTRATION FORM

\$lashing Your Utility Bill

Greenville, SC
June 21-22, 2012

Columbia, SC
June 26-27, 2012

Check Enclosed (Checks Payable to Boiler Efficiency Institute):
Fee: \$25.00

Bill P.O. No. _____

Credit Card: MasterCard Visa Am. Express

Expiration Date: _____

Card No. _____

Signature _____

Name _____

Company _____

Address _____

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**For more information, contact Tom Hudkins
at the South Carolina Energy Office.
803/737-8285; thudkins@energy.sc.gov**

PROVEN METHODS TO REDUCE STEAM PLANT COSTS WITH A MINIMUM OF UP-FRONT EXPENDITURE

A must source of practical information for both technical and non-technical personnel:

- plant and facility personnel
- mechanical equipment operators
- building owners/managers
- consulting engineers
- equipment/chemical vendors
- utility managers
- production managers
- A & E consultants

PROGRAM OBJECTIVE

The objective is to develop the participant's ability to recognize cost saving measures in a steam plant and then to implement the right changes to effect these savings. Measures to be explored include low up-front-cost O&M procedures and fast payback heat recovery and cogeneration projects.

Additional objectives include showing the participants the latest on measurement instrumentation/techniques, safety equipment/testing, cleaning, storage, etc.

BACKGROUND

The Boiler Efficiency Institute (BEI) has presented several hundred practical workshops on plant operation improvement for reducing costs over the last 40 years.

The economic turndown is forcing renewed emphasis on efficiency. Unfortunately, many managers are not exploring energy savings opportunities because of the perception that up front costs are too high. BEI has updated its course for 2012 to come in line with these new economic requirements. This course will show the participants how to recognize operation and maintenance changes that require little up front cost and then what changes to make. Additionally, heat recovery and cogeneration techniques yielding fast paybacks will be explained so that the participants know what methods are applicable and how to implement these methods.

The team has no vested interest in any product. All information will be presented from an objective viewpoint based on the experience and expertise of the lecturers. We feel that this is an important advantage over "free" programs presented by vendors.

PROGRAM SUPPORT

The South Carolina Energy Office has contracted with the Boiler Efficiency Institute to provide training in boiler efficiency and operation in two, two-day workshops at Greenville and Columbia. The course fee is normally \$795, but due to support of the South Carolina Energy Office, these programs are offered at a reduced rate to residents of South Carolina. The number of participants is limited in each program. (See back page for registration details).

INSTRUCTORS

- Glenn Maples, Ph.D., P.E.** Professor of Chemical Engineering, Auburn University
David Dyer, Ph.D., P.E. Professor of Mechanical Engineering, Auburn University
Tom Burch, Ph.D., P.E. Chief Engineer, Boiler Efficiency Institute

The instructors have a combined total of over 100 years of experience with facilities in operation, design, testing and trouble-shooting. They have written ten practical books detailing this experience as well as numerous technical papers and reports. They have presented more than 500 workshops concerned with reducing facility operating costs. During this period they have gained extensive, hands-on experience in evaluating **money saving opportunities** at hundreds of facilities. They also hold three patents and have several patents pending on equipment to reduce facility operating costs.

The instructors are known for their teaching style which combines a sound technical presentation in an enjoyable and easy to understand approach. The program will appeal strongly to all persons involved with facilities regardless of their educational and experience background.

WORKSHOP OUTLINE

FIRST DAY (Begin at 8 A.M.)

REGISTRATION

WELCOME

OVERVIEW OF PROGRAM

- Background and Scope
- Economics of Energy

BOILER TYPES

- Firetube and Watertube
- Hot Water Generator
- Electric
- Steam Generators
- Gas Turbines and Diesels/Waste Heat Boilers

COMBUSTION CONTROLS

- Types
- Adjustment Techniques
- Automatic Trim/Variable Speed Drives

REDUCING COSTS VIA OPERATION/MAINTENANCE

- Tune burner/combustion controls
- Optimize fuel firing conditions
- Choose correct fuel
- Keep fireside and waterside clean
- Optimize blowdown
- Reduce radiation and purge losses in oversized boilers
- Optimize steam pressure
- Optimize boiler loading
- Optimize fuel atomization
- Maintain traps
- Eliminate condensate losses
- Optimize deaerator performance

REDUCING COSTS VIA HEAT RECOVERY

- Conventional Economizer
- Direct Contact Heat Recovery
- Air Preheat
- Blowdown
- Boiler Room Heat
- Vent Condenser

REDUCING COSTS VIA COGENERATION

- Steam Turbine Cogeneration
- Diesel and Gas Turbine Cogeneration

SECOND DAY

WATER QUALITY PROGRAM

- Properties
- Problems and Water Treatment
- Determining Types and Amounts of Treatment

MEASUREMENT

- Boiler and Combustion Efficiency
- Trap Condition
- Makeup and Blowdown Rates
- Others

FIELD TESTING OF STEAM PLANT

- The class will be taken to operating boiler plant for demonstration of
 - Combustions Testing
 - Water Testing
 - Steam System Testing
 - Energy Auditing
- (Test site will be near classroom - bus transportation provided)

SUMMARY OF FIELD DEMONSTRATION

- Calculation of efficiencies, energy savings, economics

MAINTENANCE AND OPERATION

- Reference Data
- Computerized Maintenance System
- Preventative Maintenance
- Record/Data Keeping
- Safety Requirements/Testing
- Communication
- Cleaning
- Storage

PROGRAM DIRECTOR
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 Boiler Efficiency Institute
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RESOURCE MATERIALS

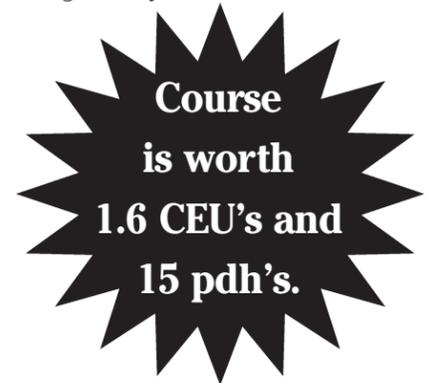
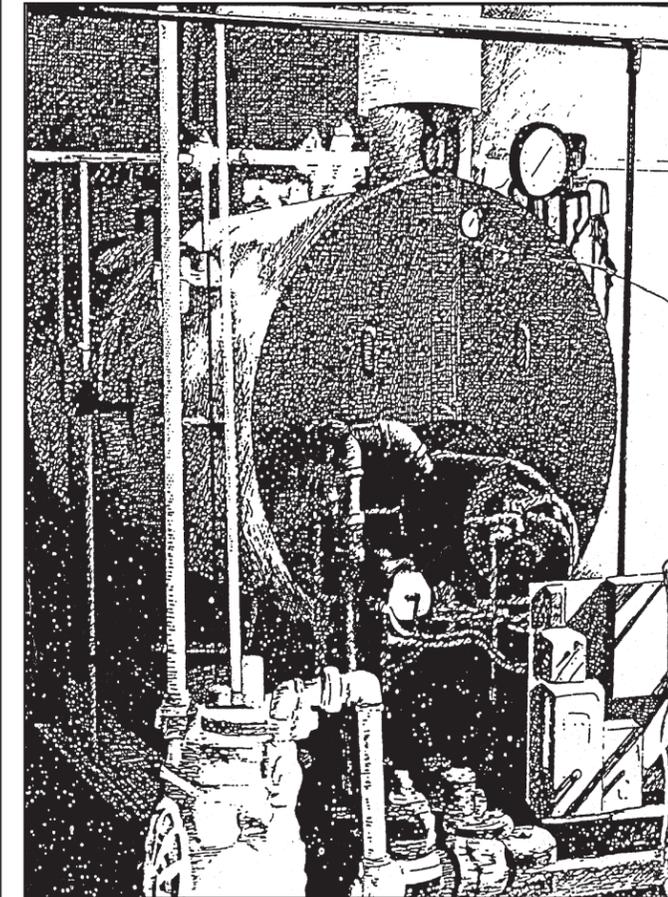
Each participant will be provided two textbooks which will serve as valuable resource guides after attending the course. These books contain numerous charts, illustrations, and background writing to make boiler plant savings easy to master. THE VALUE OF THESE TEXTBOOKS IS \$35 IF BOUGHT SEPARATELY FROM BEI.

Slashing Your Utility Bill

For Industrial, Commercial, And Institutional Facilities

2, TWO-DAY WORKSHOPS ON STEAM PLANT IMPROVEMENT

Visit our Web Sites at www.boilerinstitute.com and www.govsafetysolutions.com



Program sponsored
by the



LOCATIONS

June 21-22, 2012

Crown Plaza Hotel
I-385 & Roper Mountain Rd.
851 Congaree Road
Greenville, SC 29607
864/297-6300

June 26-27, 2012

Comfort Suites-Harbison
750 Saturn Parkway
Columbia, SC 29212
803/407-4444

PRESENTED BY

Boiler Efficiency Institute P.O. Box 2255 | Auburn, AL 36831-2255

REGISTRATION

Phone 334/821-3095 | Fax 334/887-3757 | Email melanie@boilerinstitute.com

Your Ways to Register:

1. **MAIL:** Registration Form to BEL, 1705 Pumphrey Avenue, Auburn, AL 36832

2. **BY PHONE:** Register by telephone by calling: (334) 821-3095

Give us the name, company address, and telephone number of each registrant.

3. **BY FAX:** Complete the registration form including all necessary information and transmit your completed registration to the following FAX number: (334) 887-3757

4. **BY E-MAIL:** Send all the information requested in the registration form below, including the course location and date of course to the following e-mail address: melanie@boilerinstitute.com

If time does not permit you to register in advance, you may register on site; however, you must call us to confirm that space is available.

Whichever method you select, you will receive a confirmation of registration by mail if your registration is received at least two weeks prior to the course date. Please call or FAX in your registration if the course will take place in two weeks or less.

Course materials and break refreshments will be provided. Lodging and meals are not included. A certificate of participation is presented to each participant. Proceedings are not published.

Participants will be registered as received in BEL offices in Auburn, Alabama. Class size is limited to 30 people per program. You must receive a confirmation number from the Boiler Efficiency Institute to attend. Registration will be considered complete upon payment.

Plan to arrive at 7:45 a.m. on the first day of the seminar for sign-in and on-site registration. Seminar hours are 8:00 a.m. to 4:00 p.m.

Cancellation, Substitution and Transfer Policy

Since enrollment is limited, please notify BEL if you wish to cancel. This will allow persons on the waiting list an opportunity to attend. Your can substitute another person in your place by phone or FAX as described herein.

Register Today!

Visit our Web Sites at www.boilerinstitute.com and www.govsafetysolutions.com

STEAM PLANT IMPROVEMENT

2, TWO-DAY WORKSHOPS ON