NEW ENGLAND ENERGY NEWS

NEW ENGLAND

APRIL 7th MEETING ANNOUNCEMENT 1999

State-of-the-Art Boilers and Combustion Control Technologies

The advent of new boilers, boiler system designs and microprocessor based combustion controls provide building owners, design engineers, energy services companies, and others opportunities to save energy and lower the cost of operations.

Large mass fire tube, large cast iron and low mass modular boilers have rated annual fuel utilization efficiencies (AFUE) around 80%. Room air robs the boiler of heat stored in the boiler hot water and metal surfaces. When the boiler is off, the warm chimney creates a stack effect drawing cooler surrounding room air in through the combustion chamber, flue passages and up out of the boiler. Alternatively, condensing boilers draw combustion air from the outside directly into the

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Speakers

Mr. Robert Handschiegl, Mechanical Marketing Inc.

Mr. Alan C. Bishop, George T. Wilkinson, Inc.

Mr. James White, Boston Gas Company

For more information

Meeting Manager: Robert A. Di Giandomenico, CEM, CDSMP

Energy Systems Engineer, COM/Electric and COM/Gas

Telephone: (508) 481-7900 ext. 2231

Bostongas
Eastern Enterprises

WEDNESDAY

April 7, 1999

Location

Doubletree Guest Suite Hotel
Exit 27 B off Route 128
Waltham, MA
781-890-6767

Board Meeting & Social Hour
4:30- 6:00 PM

Dinner and Presentation
6:00 - 8:30 PM

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$ 30 per person
$ 15 per student with ID

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President's Message

We had a great turnout for last month's meeting, which focused on Boston Edison's demand-side management programs. Many thanks to John Brown, who stayed after the program concluded to field additional questions from the group.

This month, we will learn about the latest in high efficiency boilers and combustion technology, as well as Boston Gas Company's programs to help fund high efficiency installations. Our speakers will be Al Bishop from G.T. Wilkinson Inc., Bob Handschiegl, from Mechanical Marketing, Inc., and Jim White from Boston Gas, who will review his firm's high efficiency incentives. These gentlemen work with both end-users and consulting engineers like you every day to maximize operational benefits as well as energy efficiency.

I AM PLEASED TO ANNOUNCE THAT BOSTON GAS HAS GENEROUSLY OFFERED TO PAY THE MEETING FEE FOR THE FIRST FORTY FIVE (45) INDIVIDUALS WHO RESPOND TO OUR RESERVATION LINE!

Next month's meeting, spouse's night, will be held on May 5th. We will begin with a tour of the USS Constitution and Museum, followed by dinner at Barretts in the Charlestown Navy Yard. We have had a great turnout for the last few spouse's nights, and based on the survey results, I am sure that this year will prove to be the most successful yet.

Finally, I want to extend my thanks to those firms that encourage their employees to participate in professional organizations like ours. This month, for example, ComGas offered the services of one of its employees to proctor the CEM exam, which was being held in Newton. Without the high level of corporate support and sponsorship that we enjoy, this chapter would not have been recently acclaimed as one of the foremost in the country.

Chris

Chris Tomasini

1999 Chapter President

AEE NEW ENGLAND

Association of Energy Engineers
New England Chapter
c/o Joe Mellusi
Honeywell DMC Services Inc.
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N. Easton, MA 02356

State-of-the-Art Boilers and Combustion Control Technologies

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combustion chamber and recover the flue gas/stack heat therefore increasing the AFUE to the 90 to 95% range. Bob Handschiegl will speak on the advantages of condensing boilers and alternate system designs, e.g. smaller footprint, fuel savings and reduced system piping.

Maximizing boiler operational efficiency requires satisfying two needs. The first need is maintaining the proper fuel/air ratio ensuring complete combustion. This requires infinitely repeatable and highly accurate controls. The second is monitoring the boiler temperature/pressure load continuously with the combustion control system and adjusting for the proper fuel/air ratio setting. Due to inherent hysteresis or poor repeatability, traditional mechanical cam and linkage controls, used to characterize fuel/air ratios, are inaccurate resulting in significant operating variations of the settings. Through micro-modulation of the fuel/air ratio, microprocessor based combustion control systems optimize combustion quality ensuring more accurate temperature and pressure set points. Al Bishop will speak on the features and benefits of microprocessor based combustion control technology.

Boston Gas Company's Energy Management Programs

Bostongas
Eastern Enterprises

Boston Gas Company operates many programs that encourage business and property owners to adopt new energy-saving technologies that will reduce their operating costs and increase their profits. Energy audits, high efficiency heating equipment rebates and technology demonstrations are three programs designed to support the use and highlight the value of design innovations like condensing boilers and microprocessor based combustion controls. For this reason, Boston Gas Company's Energy Management Group is sponsoring the first forty-five attendees that register to attend this month's meeting. Please join your fellow AEE members and this month's speakers for an interesting session on the energy saving opportunities associated with condensing boilers and microprocessor based boiler controls.