



THIN-AIR BULLETIN

ASHRAE

NEW MEXICO CHAPTER

REGION IX

ALBUQUERQUE, NEW MEXICO

AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR CONDITIONING ENGINEERS

March 2008

How to Maximize Efficiency in Hot Water Heating

PROGRAM ABSTRACT

When mechanical engineers were in school, they typically took two courses in thermodynamics – a first course in theory and a second in theory applied to systems. A significant portion of the second course involved calculating the efficiencies of cycles. When was the last time an engineer calculated the optimal cycle efficiency for a hot water boiler plant? In fact, the notions of cycle efficiency and cycle optimization are largely missing from the practice of designing commercial hot water heating systems. The efficiency of the cycle – as opposed to the efficiency of boiler equipment – is a critically important consideration if the engineer and/or the client desire to achieve maximum efficiency and minimum greenhouse gas emissions. Calculating cycle efficiency and designing for maximum cycle efficiency require a new tool set, and that tool set is the focus of this presentation. Mr. McKeegan will begin with essential theory, demonstrate the tools, and show how to apply them to achieve new levels of performance in hot water boiler plants. The program is non-commercial, and is wholly devoted to engineering method and technique and tricks-of-the-trade.

BIO

Jack McKeegan is a second generation boiler technical specialist and a thirty year veteran of the boiler industry. His principal research interests center on finding new methods of controlling boiler-system interaction effects to create more efficient operating cycles in hot water heating systems. Mr. McKeegan serves as Manager of Market Development at Patterson-Kelley, a Harsco Company. He is PK's princi-

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PRESIDENT'S MESSAGE

President's Message

Last month was our first evening meeting of the year. Attendance was good but I believe we will continue to have lunch meetings when possible. The speaker was a distinguished lecturer from ASHRAE, Barry Benator, who presented an introduction to Project Management. The topic was something many of us do every day but it was good to have a reminder of what makes good and bad project management.

The Chapter is also working to provide some summer intern activities for the students of the UNM HVAC class. If your company has any openings for interns please contact me, rjreif@bpce.com or our Student Activities Chair, Mike Ferguson, mferguson@siglers.com. Our Chapter has really stepped up support of the HVAC class and the class actually is currently very well attended with 12 students. This would be a great opportunity to get a young engineer on your staff.

pal systems application developer, principal hydronics specialist, and principal trainer. Based in Chicago, Mr. McKeegan also serves as Region Manager for the Western US and Canada.

Meeting date: Tuesday, March 18th at 11:45am

Place: Pappadeaux (Jefferson & I-25)

Cost: \$ 15.00

Please RSVP by Friday March 14th to Dan Beckley, 343-8190, or email to: danbeckley@tjc-nm.com

Last Month

In February we had a dinner meeting and enjoyed a great turnout for our ASHRAE Distinguished Lecturer, Barry Benator. Barry received very positive reviews of his presentation on "The Fundamentals of Project Management".

Student Activities

Hi Everyone,

This semester UNM has approximately 12 students enrolled in the HVAC class. Many of these students are seniors who will be graduating this May. If you know of any internships or job opportunities, please let me know and I will get this information to the class.

Thank you,

Mike Ferguson

Student Activities Chairman Sigler - Albuquerque, NM

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NEW MEXICO CHAPTER of ASHRAE

2007-2008 PROGRAMS SCHEDULE

The following is the 2007/2008 schedule of programs. Additional speaker information will be provided in each monthly newsletter.

January 15, 2008 TBD

February 19, 2008 ASHRAE Distinguished Lecturer Barry Benator – Benatech Inc.
Fundamentals of Project Management
Dinner Meeting - TBD

March 18, 2008 John Crafton – Commissioning a LEED Project

April 15, 2008 Jack McKeegan – HW System Design

May 20, 2008 TBD

Note: Joint meeting with NMFMN

Dinner Meeting - TBD

All meetings will be Lunch meetings unless noted otherwise.

FROM THE HISTORY BOOKS



March 1991

Chapter Offices Were:

President:	Bruce Davis
President-Elect:	John Grapsas
Secretary:	Steve Maggert
Treasurer:	Mike Slaman

On March 19, 1991, the monthly meeting speaker was Robin Ramsey who spoke about Ventilation Engineering and the phenomenon of airflows around buildings. The 10-foot rule regarding exhaust ducts was shown to be not acceptable and that more technical evaluation must be done to adequately locate exhaust and intake ductwork. Special cases such as complexes of buildings, geography, ect. Were reviewed. These design considerations apply to employee safety and product contamination and not to environment concerns.

The New Mexico Chapter of ASHRAE participated in the Architectural Trade Show in Albuquerque, The Chapter had a booth as well as conducting seminars on evaporative cooling, 1989 model energy code and refrigeration. Speakers included Mr. John Noble, Mr. Harold Trujillo and Jim Martin.