# THE BADGERAIRE

# AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR CONDITIONING ENGINEERS, INC.

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A PURLICATION OF THE WISCONSIN CHAPTER OF ASHRAE

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# November Dinner Program: The Ethics and Economics of Energy Conservation Thursday, November 17, 2005

This month, we are pleased to have ASHRAE distinguished lecturer William J. Coad coming to speak to us. He will be doing a main dinner talk about <u>The Ethics and Economics of Energy Conservation</u>. This talk explores the economics of energy conservation and the failure of economic alternatives in the search for more energy conservative buildings and machines. Then, based upon this observation an alternative perspective leads to the conclusion that energy conservation is an ethic, and if this ethic is embraced by those who practice in the energy sciences, the inevitable result will be improved system performance, energy conservation and economics.

There will be a Technical session called <u>VAV System Design: Problems and Opportunities</u>. This talk explains the history and the physical principals of VAV systems. After exploring the genesis of the concept, the evaluation of state-of-the-art systems is presented from a critical perspective. Through an analysis of the deficiencies in the performance and economic parameters, concepts of systems based upon elementary thermodynamics and fluid theory coupled with decreased complexity will be presented.

Program Location Bluemound Garden's 11703 W. Bluemound Rd. Wauwatosa, WI 53226

Tech Session Registration:
Tech Session:
Registration/Social Hour:
Meeting/Dinner:

3:45 p.m. – 4:00 p.m.
4:00 p.m. – 5:30 p.m.
5:30 p.m. – 6:15 p.m.
6:15 p.m. – 8:00 p.m.

The program cost of \$25.00 will include entrée choice of oven roasted half chicken, orange roughy, and a vegetarian selection. Checks should be payable to the "Wisconsin Chapter of ASHRAE".

PLEASE MAKE YOUR RESERVATIONS ONLINE AT <a href="https://www.ashrae-wl.org">www.ashrae-wl.org</a> OR TELEPHONE YOUR RESERVATION TO MAGGIE ROLL @ 414.778.7422. IF CALLING IN YOUR RESERVATION, PLEASE SPELL OUT YOUR LAST NAME ON THE MESSAGE AND LIST YOUR MEAL CHOICE. PLEASE HAVE YOUR RESERVATIONS IN BY CLOSE OF BUSINESS, MONDAY, NOVEMBER 14, 2005. THANK YOU



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#### PRESIDENT'S COLUMN

This time of the year is one the main reasons I enjoy living in Wisconsin. The fall colors, holidays and the approaching winter season, always brings back joyful memories. Whether you're in the outdoors or just sitting by a warm fire with a mug of hot chocolate, tying it altogether with family and friends makes it a special time of the year.

For ASHRAE members, this is also the first part of the society calendar year. We have many important programs planned for the year, so I hope you can make time to attend them and interact with follow members. Reach out to other members in your companies and associates and encourage them to attend as well.

I want to thank Lev Zevenyach for presenting at our chapter meeting last month on alternatives for energy conservation. The topic was informative and eye opening. We had a good turn out of members last month. Thanks also to Corey Metzger for making the arrangements for the presentation.

I want to keep encouraging members to update their information with any of the board members to keep you informed of the chapter programs and general information. Our goal is to get the membership chapter information in a useful and timely manner. Please help us in this endeavor.

And as always, please contact me or any member of our board if you have any questions or comments on making your chapter better. We are looking at moving the chapter and its operations in a positive direction. We need our membership's insights and opinions to guide that direction. Thank you and see you at the November meeting.

Hussein Badani (Sam) Wisconsin Chapter of ASHRAE President Sam.Badani@triadengineering.com

### William J. Coad Biography

William J. Coad is a principal and immediate past Chairman and CEO of McClure Engineering Associates, a mechanical and electrical consulting engineering firm. He has been with the company for forty years engaged in the design and analysis of all aspects of building systems and as a principal of the company. He is also on the Board of Directors of Mestek Corporation of Pittsburgh and of Exergen Corporation of Boston. He was an affiliate professor of mechanical engineering at Washington University teaching graduate level courses in HVAC systems for 29 years. He was the 2001-02 President of the American Society of Heating, Refrigerating and Air-Conditioning Engineers.

Mr. Coad has authored two books and over one hundred articles and papers on various aspects of building systems and energy engineering. He and his firm have been pioneers in the development of computer programs for building energy analysis, cogeneration systems, well water source heat pumps, one-pipe chilled water systems, and variable flow chilled water systems. He has been active in technical, professional, and civic organizations and has received numerous awards for his technical contributions, including ASHRAE's highest award for technical achievement, the F. Paul Anderson Award.

#### FROM OUR TEGA CHAIR

The listing of 2006 Technology Award Winners has been announced. The Judging Panel, chaired by Mike Circosta, met October 7-9 in Orlando. Plaques for the First Place winners will be presented at the Chicago Plenary on January 21, 2006. A poster display for the First Place winners will be available for viewing in Chicago on Tuesday, January 24th at the Poster Session. All winners will be featured in the March 2006 issue of the *ASHRAE Journal*. Special congratulations go out to Lev Zevenyach on his First Place win.

Joe Lucchesi, P.E. Tega Chairperson jlucchesi@buttersfetting.com BADGERAIRE September, 2005

# ASHRAE CHAPTER MEETING October, 2005 – Alternative Solutions for Energy Conservation

Lev Zevenyach, Vice President, IBC Engineering Services shared his experiences and insight with the participants at our October Chapter Meeting. The technology that Lev described is innovative, driven by client needs, and demonstrates the delivery of energy efficient systems that respect the environment. Work with the Chicago Center for Green Technology was part of the design team's success in achieving the U.S. Green Building Council LEED Platinum rating.



Lev described the use of geothermal heat pumps, heat recovery systems, positioning of ductwork to serve as a light shelf in day lighting design, ice storage to add air conditioning to a school enabling year-around operation, and proposed use of lake water cooling. The projects included the

office in Chicago, a Milwaukee library, a Racine school, Bradley Tech, and a proposal for the Milwaukee County War Memorial.



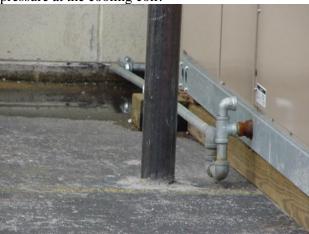
While the technologies were interesting, the most intriguing part of the discussion was learning about the logic that led to the selection of each particular

solution. Lev took us from client need to whole building design in providing the basis for the design and implementation of the mechanical systems.

Thanks for a very interesting evening Lev!

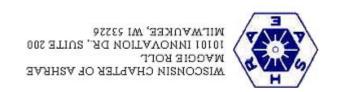
#### TECH CORNER

Did you know . . . . that not all service techs know the proper way to install condensate traps? Please look closely at this picture! E-mail me and tell me if you think this works! When there is a very long haul for the water to go, there should be an air gap AFTER the trap! In this application, the piping slopes very little over forty feet to the North. It was also not supported and sagged. At the point of sagging, water was trapped and froze. It split the galv. pipe and drains at the building edge. This can cause water problems in the future and leaking in the basement. Look closely again, how do you take this apart to clean it. Make sure your contractors install the condensate traps correctly AFTER the startup to insure there is enough trap depth for the static pressure at the cooling coil!



### **JANUARY'S MEETING**

We are very fortunate to have Randy Dahmen coming in to speak about the Wisconsin Commercial Building Code. Please note that the meeting date is tentatively planned for January 12<sup>th</sup>, 2006. More details will follow in next month's newsletter.



MEETING DATE / THEMES	LOCATION	TOPIC	SPEAKER
November 17, 2005 Evening Meeting	Bluemound Garden's	The Ethics and Economics of Energy Conservation	William J. Coad, P.E., ASHRAE Distinguished Lecturer
December 05, 2005 Holiday Dinner Dance	Polish Center Franklin, WI	N/A	N/A
January 12, 2006 Research and Promotion	TBA	Wisconsin Code Review	Randy Dahmen of the Wisconsin Dept. of Commerce
February 16, 2006	TBA	Joint AIA Meeting	TBA
March 16, 2006	TBA	Indoor Air Quality	TBA
April 19, 2006 1:00-4:00pm	Webcast	Sustainability and the Building Environment	Joe Van Belleghem, CA, Kevin Hydes, P.Eng., P.E., Hal Levin, Malcolm Lewis, P.E., and Jean Lupinacci
April 20, 2006 Student Day	TBA	WE Energies	TBA
May18, 2006	TBA	Joint CSI Meeting	TBA

All meetings will be held the third Thursday of every month, except December or otherwise noted. \*Please note: This is a tentative schedule; topics may be subject to change.