

INFORMAIRE

JOURNAL OF MADISON, WISCONSIN CHAPTER
AMERICAN SOCIETY OF HEATING REFRIGERATION AND AIR CONDITIONING ENGINEERS

VOLUME XXXVII NO. 6

www.ashraemadison.org

February 2005

In this Edition:

Meeting Information	1	Product Directory	3	Program Schedule	7
President's Message	2	Historian	3	Chapter Contacts	7
Resource Promotion	3	Meeting Minutes	4	Advertisers	5

FEBRUARY MEETING

Submitted by Bruce Kimball

DATE: Tuesday Evening, February 15th, 2005

LOCATION: Radisson Inn
6617 Odana Road, Madison, WI

TIME: 5:00 – 6:00 Social Gathering
6:00 – 7:00 Meeting and Dinner
6:45 – 7:45 **PROGRAM PRESENTATION**

TOPIC: LABORATORY DESIGN FOR THE 21st CENTURY

Reducing energy consumption while maintaining life-safety, functionality, and adaptability is the challenge for Research Laboratories. A 145,000 square foot lab at Indiana University will be used as a design model to illustrate design solutions. Other design solutions being considered at the National Institutes of Health, Univ. of Arizona, and Univ. of Illinois will also be presented.

SPEAKER: **Michael Broge**, PE, Higher Education Market Leader. Affiliated Engineers
Michael Walters, Sustainable Systems and Energy Analysis, Affiliated Engrs

Mike Broge is a professional engineer with over 25 years of experience leading teams working on various types of college and university buildings. Mike has a comprehensive background in all phases of mechanical engineering including HVAC, piping and building automation systems.

Mike Walters has experience in the design, analysis, implementation and certification of sustainable and energy efficient systems. Mike contributed to the Labs21 Program's Energy Performance criteria document presented to the US Green Building Council's first international conference in 2002.

RESERVATIONS: Please RSVP no later than Wednesday, February 5th by noon.

Please indicate dinner selection when submitting RSVP;
Champaign Chicken , Breaded Perch, or Stuffed Pork Chop.

The INFORMAIRE is the MONTHLY JOURNAL of the Madison, Wisconsin Chapter of the American Society of Heating, Refrigeration and Air Conditioning Engineers. Statements in the publication are not an expression of the Society of the Madison Chapter and may not be reproduced without written permission of the Board of Governors. Editor: Mark Miller, mark.miller@mail.ashrae.org

Cost is \$20 for members and guests and \$1 for students. Pay at the door. Please make checks payable to Madison ASHRAE Chapter. To make reservations, e-mail Bruce Kimball at kimball@strang-inc.com (preferred) or call (608) 276-9200.

PRESIDENT'S MESSAGE

Submitted by: Tom James

Greetings, Fellow ASHRAE Members!

How appropriate that we should be reminded of the necessity for conserving and recovering HVAC energy as the frigid blast rages outside, and with the world's oil supply is more unstable than ever! This necessary HVAC technology is evolving rapidly, with new developments occurring frequently. My thanks to Doug Bergmann of Madison Trane for updating us on current and newly available comfort-to-comfort energy recovery technologies and equipment.

As you appreciate the great outdoors here in Wisconsin with our beautiful snow and ice, please remember that you have the opportunity to experience a very professionally educational and personally satisfying trip to the AHR Expo in Orlando, Feb. 5-9. ASHRAE offers a full range of HVAC seminars and short courses, Society meetings, social activities, and technical committees to participate in. The weather will most likely be more comfortable in Orlando as well, for those of you who appreciate such amenities. If you have not yet registered, please let me know and I can send a VIP Invitation for free admission to you. See www.ahrexpo.com for complete program and expo information.

The CRC2007 Committee will hold our first meeting at our next Board of Governors meeting on Feb. 17, so please contact myself, or any member of the BOG, if you are interested in participating and would like to get in on the ground floor. This is an exciting opportunity to contribute to the Chapter, to learn large event planning, the inner workings of ASHRAE Region VI, and as well to make new professional and personal contacts..

Mitch Hagens also has an opportunity to participate in the Scholarship Committee, to provide financial support to promising young engineers who might be interested in our industry. Please contact him if you are interested in joining his committee.

My thanks to Past President Mark Miller for completing the Madison Chapter 2004-2005 Product and Service Directory. Mark has contributed immeasurably to this chapter through his enormous time and effort commitment spent in completing this publication, in all his years of editing the INFORMAIRE Newsletter, with his service in all of the officer positions, and now his membership on the CRC2007 committee. Our chapter is very grateful for all you have done, Mark!

See you at the February meeting!

God Bless and Protect the soldiers who protect our freedoms and our great country!

God Bless the United States of America!

Respectfully Submitted,

Tom James- President, Madison Chapter

RESOURCE PROMOTION

Submitted By: Al Zeller

To any contributors for the year ending June 30, 2004; if you individually contributed \$100 or more, or your organization contributed \$150 or more you should have received a 2004 commemorative coin suitable for display or collecting. If you have not received your coin, please contact me, by telephone (241-9342) or e-mail azeller@capitolmechanical.com.

Our committee members will be contacting organizations over the next couple of months for your 2005 contributions. Please be generous, as we currently fund less than 30% of the requests at the national level.

PRODUCT and SERVICES DIRECTORY

Submitted By: Mark Miller

On The Web; www.ashraemadison.com

The Product and Service Directory is now posted on the Madison Chapter website. Zach Obert posted it there this past month. Use it as a source of finding product or services. Errors and corrections should be directed to Mark Miller. Contact me at mark.miller@mail.ashrae.org or (608) 835-1944.

HISTORIAN

Submitted By: Jeff Boldt

History Committee Makes PAR First

We met PAR this month with the histories for Rheem and Capitol Mechanical – and we were also first in the region reach PAR. My thanks go out to Mark Miller for authoring and publishing the Rheem history and Al Zeller for providing information and a tour of Capitol Mechanical! That means it is time to start thinking about next year. We welcome suggestions for histories of HVAC systems, members of our chapter, or companies that have been significant in the Chapter.

SATELLITE BROADCAST

Submitted By: Mark Miller

Mold in the Building Environment Satellite Broadcast – April 13

The Madison Chapter of ASHRAE along with Planning Design Build will host the ASHRAE Satellite Broadcast on April 13th, 2005 at 12:00 noon CST. The mold broadcast presenters will explore prevention of mold in new construction, methods for monitoring mold in indoor environments, detection of biological contaminants, solutions to prevent and/or alleviate mold problems and the legal issues relating to mold contamination. Look for more information on how to register. If you would like to find out more about this satellite broadcast, point your website browser to www.ashrae.org and select Education & Publications – Satellite Broadcasts.

MEETING MINUTES

Submitted by: Gene Nelson

Chapter Meeting:

1. **PRESIDING OFFICER:** Tom James, President

2. **CALL TO ORDER (Time & Place)** January 10, 2005 7:00 p.m.
 J.T. Whitney's
 674 S. Whitney Way
 Madison, Wisconsin

3. **BUSINESS MEETING/
 COMMITTEE REPORTS/
 PRESENTATIONS**

Tom James called the meeting to order. Tom opened by introducing Tim Meeker of Arnold and O'Sheridan as the newly appointed member of the Board of Governors (Member at Large).

Tom James introduced Robin Maly to the members. The Board of Governors approved reimbursement of Robin's expenses (to a maximum of \$750) to attend the ASHRAE AHR in Orlando, FL.

The next ASHRAE satellite broadcast will be April 13th. The topic is "Mold in the Building Environment". The location(s) is still to be determined.

Programs committee chair, Bruce Kimball, distributed meeting feedback forms for the December panel discussion. Members were encouraged to complete and submit. In addition, feedback forms were distributed for the night's program, Applying Energy Recovery For Maximum Energy Savings presented by Doug Bergmann of the Trane Company.

4. **PROGRAM**

Doug Bergmann of the Trane Company presented Applying Energy Recovery For Maximum Energy Savings. General information and applications were discussed. Some of the energy recovery types, benefits, shortfalls, and applications discussed were as follows:

Run Around Loop:
 The runaround loop consists of two coils, typically 6 rows or greater, installed in the exhaust air stream and the outside air stream. A glycol solution is circulated between the two coils extracting heat from one air stream and transferring it to the other. The runaround loop does not allow for cross contamination and recovers sensible energy only. A three-way control valve should be used to control the glycol temperature to prevent frosting.

Heat Pipe:
 The heat pipe has refrigerant contained within a finned pipe. One half of the heat pipe is in the exhaust air stream and the other half is in the outside air stream. The heat pipe does not allow for cross contamination and recovers sensible energy only. Frost control is accomplished by face and bypass dampers. The heat pipe is more efficient than the runaround loop.

Plate-to-Plate Heat Exchanger
 The plate-to-plate heat exchanger consists of tightly fit plates which allow for the cross flow of exhaust air and outside air through the heat exchanger. This type of energy recovery is approximately 75% efficient. Frost is very difficult to control in this type of unit. Typical frost control techniques include face and bypass, thermostat on the cold corner, and the traversing defrost (best option).

Total Airside Energy Recovery
 There are many airside (wheel type) energy recovery units and manufacturers. The preferred wheels are those with wide openings providing near equal latent and sensible heat transfer. The wide openings prevent the wheel from acting as a filter and the equal latent and sensible recovery aids in preventing the possibility of frost. Important features of a wheel type energy recovery unit include the purge section and the seals adjacent to the rotating wheel. These features help to minimize carryover from the exhaust stream to the outside air stream. Wheel type energy recovery units are approximately 75% efficient and will result in capacity reduction of about 3.3 tons per 1,000 cfm.

New technology includes the use of dual wheels in a single unit. This type of equipment is utilized to provide very dry air at room neutral temperature.

INFORMAIRE

5. **PRIZE DRAWING** The balloon ride (Donated by Planning Design Build) was won by Ryan Meinholz.
6. **ADJOURNMENT** 7:55 pm
- Reported By:** Robb Stone.

BOG Meeting:

1. **PRESIDING OFFICER:** Tom James, President
2. **CALL TO ORDER (Time & Place)** January 6, 2005 4:06 p.m.
Babes Grill & Bar
5414 Schroeder Road
Madison, Wisconsin
3. **ROLL CALL** Tom James, Bruce Kimball, Chad Faber, Gene Nelson, and Rob Stone
4. **APPROVAL OF MINUTES**
Motion Bruce Kimball motioned to accept the November 2004 BOG and December Chapter meeting minutes.
Second Gene Nelson
Vote Unanimous
5. **REPORTS**
Treasurer's Report Chad handed out a summary of last month's transactions and a budget summary. Expenses included \$1725.72 was paid for the December Chapter meeting meal and drink cost at the Nakoma Country Club, \$100 for Christmas gifts, \$1,470.94 for printing of the product directory, \$79.98 mailing costs for the product directory, \$86 for student chapter meeting/talk pizza, \$500 for Full Circle ASHRAE Research contribution, and \$74 for program expenses (Equipment rental, etc.).
Income from the December meeting was \$1,040.00 which did not include the 20 out of 30 cafeteria plans. Also included were \$500 from RP Full Circle fund and \$300 from regional dues. Account balances are:
First Federal Checking Account as of 11/26/04 \$ 9,699.32
Merrill Lynch Scholarship Fund as of 11/30/04 \$ 40,281.00
Merrill Lynch Investments as of 11/26/04 \$ 24,633.00
Bruce said he had not yet purchased any speaker gifts. The BOG encouraged him to do so even if costs were more than the \$22 budgeted.
Motion Gene Nelson motioned to accept the December 2004 treasurer's report.
Second Rob Stone
Vote Unanimous
6. **OLD BUSINESS**
7. **NEW BUSINESS**
Election of Replacement For Ed Carroll Vacancy On BOG (Member-at-Large) Nominees included Keith Swartz, Matt Heil, and Tim Meeker. Tom handed out copies of Article 7.7 from the ASHRAE Chapter Operations Manual in regards to filling vacancies on the BOG. Article 7.7 suggested 2 options, 1) Have the BOG appoint someone to fulfill the current term, 2) Use the normal nomination/election process. The BOG elected to use option 1. The criteria the BOG used in selecting a candidate was primarily someone who would agree to continue through the officer chairs. Chad had talked to Tim Meeker and he agreed to continue. The BOG unanimously approved Tim Meeker as the "Member-at-Large" replacement.
New Student Scholarship Tom said he had received a proposal request from Prof. Tim Shedd to have a student (Robin Maly) attend the ASHRAE show in Orlando. They had estimated the expenses at \$750. Tom suggested that this is an opportunity to expand our scholarship offering for this year and future years. Sponsoring a student at the ASHRAE show is an excellent method of expanding student's interest in the HVAC industry.

After some discussion, we agreed to start this scholarship program with funding up to \$750 and some conditions. Conditions included that the recipient should:

- 1) File a detailed expense report.
- 2) Attend at least 2 technical sessions.
- 3) Submit a written report for the chapter newsletter, *The Informaire*.
- 4) Give a short verbal report at a chapter meeting.
- 5) Give an extended presentation at the local student chapter meetings in Madison and Platteville.
- 6) Give a presentation at the local ASME student chapter meeting.
- 7) Review the award amount with the BOG and make suggestions for next year.

With such short notice, the BOG agreed to award this year's scholarship to the student recommended by Prof. Shedd, Robin Maly. Tom James knows Robin personally and can vouch for her commitment to the HVAC industry. We agreed to include Wayne Prior, Mitch Hagens, and Prof. Shedd in on future scholarship awards.

Motion
Second
Vote

Chad Faber motioned that we accept the above proposal.
Rob Stone
Unanimous

**Copyright Issues Associated
With Pre-Recorded Materials**

Tom stated that he wishes to make the video tape of the December Chapter available on the Internet. The only issues we could think, is to ask permission from each panel participant and make a disclaimer statement that materials on this website are copyrighted. Bruce agreed to contact each panel member.

In the future, the Program Chair should ask program speakers if their PowerPoint presentations can be placed on our website. Bruce would also like to distribute program evaluations electronically. We agreed that sending out the previous month's form with a link back to the program chair with the *INFORMAIRE* newsletter is a good idea.

Motion
Second
Vote

Chad Faber motioned that we accept the above proposal.
Gene Nelson
Unanimous

ASHRAE Satellite Broadcast

Tom suggested that we sponsor host sites for ASHRAE's April 13th Satellite Broadcast on "Mold in the Building Environment". Chad volunteered PlanningDesignBuild's facilities for one host site. Bruce agreed to follow up with Trane Company to see if they are willing to host a site similar to the last satellite broadcast.

Motion
Second
Vote

Chad Faber motioned that we accept the above proposal.
Bruce Kimball
Unanimous

Seminar

Tom said that he is still interested in putting a half day seminar in addition to the satellite broadcast. The topic will be an extension of the contract document discussion we had at the December meeting. Tom mentioned that Mike Gall had volunteered to lead this effort as part of the CTTC, but he will need help. We discussed timing. If it was going to happen this year it needs to be in March. Tom will discuss this further with Mike Gall.

Next BOG Meeting

February 17, 4 p.m. (Location to be determined.).

8. ADJOURNMENT

5:17 pm

INFORMAIRE

PROGRAM SCHEDULE

Submitted By: Bruce Kimball

	Topic	Location	Presenter	
Feb 14	Energy Efficient Laboratory Design	TBD	John Nelson (AEI)	Historical
Mar 14	Tour, Refrigeration facility	TBD	TBD	Student and Joint with RETA
Apr 11	Tour EPIC	EPIC	AEI	Joint with ASPE
May 9	Acoustics-101	TBD	Jim Yerges	
Jun 12	Golf Outing	Stoughton Country Club		Social

CHAPTER CONTACTS

OFFICERS:

		<u>Phone</u>	<u>Fax</u>	
PRESIDENT:	Tom James	608/845-6411	608/845-6470	Tjames1229@aol.com
PRESIDENT-ELECT:	Bruce Kimball	608/276-9200	608/276-9204	kimball@strang-inc.com
TREASURER:	Chad Faber	608/836-8055	608/836-5818	cfaber@planningdesignbuild.com
SECRETARY:	Gene Nelson	608/238-1232	608/238-2614	gcnelson@aeieng.com
PAST PRESIDENT:	Mark Miller	608/835-1944	866/422-2290	mark.miller@mail.ashrae.org
BOARD OF GOVERNORS:	Rob Stone	608/821-8500	608/821-8501	rstone@arnoldandosheridan.com
	Tim Meeker	608/821-8500	608/821-8501	tmeeker@arnoldandosheridan.com

COMMITTEES:

CRC DELEGATE:	Tom James	608/845-6411	608/845-6470	Tjames1229@aol.com
CRC DELEGATE:	Bruce Kimball	608/276-9200	608/276-9204	kimball@strang-inc.com
CTTP:	Mike Gall	608/838-8200	608/838-6015	mgall@trane.com
GOLF:	Michel Robert	608/838-8200	608/838-6015	marobert@trane.com
	Doug Bergman	608/838-8200	608/838-6015	debergmann@trane.com
HISTORIAN:	Jeff Boldt	608/223-9600	608/233-9601	boldtjg@kjww.com
MEMBERSHIP:	Matt Heil	608/833-7000	608/833-6996	mheil@henneman.com
NEWSLETTER:	Mark Miller	608/835-1944	866/422-2290	mark.miller@mail.ashrae.org
PROGRAM:	Bruce Kimball	608/276-9200	608/276-9204	kimball@strang-inc.com
REFRIGERATION:	Terry Riker	608/271-7500	608/327-2363	triker@tsihvac.com
RESOURCE PROMOTION:	Al Zeller	608/241-9342	608/837-0278	azeller@capitolmechanical.com
SCHOLARSHIP:	Mitch Hagens	608/241-4328	608/241-2710	mhagens@naminc.com
STUDENT ACTIVITIES:	Wayne Prior	608/288-8338	608/288-8388	prioreng@mcleodusa.net

Advertisers Wanted!

Contact Mark Miller
at

mark.miller@mail.ashrae.org

Air Conditioning Mark F. Miller
Division District Sales Manager



5600 Old Greenwood Road
Fort Smith, AR 72917-7010

INFORMAIRE

Newsletter Distribution is to
over 240 key HVAC individuals
monthly!

Full Year-**\$80.00**. Half-Year-**\$40.00**
Send a copy of your business card.
We can either scan your business card
or generate a reproduction of it.

ASHRAE Madison Chapter
c/o Temperature Systems, Inc.
P.O. Box 8030
Madison, WI 53708-8030

(Address Correction Requested)

