

# THE BADGERAIRE

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



## March and April Chapter Meetings and Events

### **Thursday, March 17-½ Day Educational Seminar Hosted by the Research Promotion Committee**

See pages 5-6 of this newsletter for all the details.

### **Thursday, April 28<sup>th</sup> Chapter Meeting**

#### **Times**

5:30 P.M. Gathering

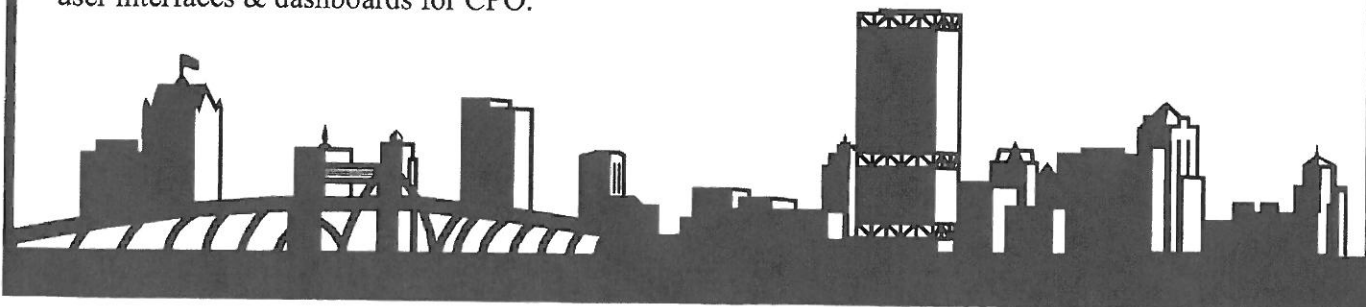
6:15 P.M. Dinner

6:30 P.M. Presentation

**Where:** Joey Buona's Downtown, 500 N. Water Street, Milwaukee, WI 53202

**What and Who:** CENTRAL PLANT OPTIMIZATION - *Ben Erpelding* (Director of engineering, Optimum Energy) and Dave Klee (Director of Marketing & Strategy, Johnson Controls) will speak on the topic of *Central Plant Optimization (CPO)*. CPO is getting more popular in new and existing buildings, but there's a lot of confusion regarding what it really is and what's needed to make it work.

Ben and Dave will present the key pieces of a best-in-class CPO implementation, and step us through the process required to achieve persistent savings through CPO. They'll present on why variable primary flow plants are the way to go, and share some characteristics of the latest software, user interfaces & dashboards for CPO.



### President's Column

With the month of March upon us, this can only mean that spring weather is nearing and the approach of CRC is only a month away. As a reminder to our membership, this years **CRC will be held in Green Bay** by our chapter neighbors to the North. I would encourage all of our members to learn more about this year's event and attend if possible. More information can be found at the following website (<http://www.newwisconsinashrae.org>) and on page 7 of this newsletter.

Our February Chapter meeting was a well attended tour of the Miller Brewing Company and included a technical discussion on the central refrigeration system which serves the entire brewery processes. I would like to thank Rory Peter, Utility Manger for Miller-Coors, for his in-depth description of the refrigeration system and leading the informative tour of the central plant.

The upcoming March meeting is a unique opportunity to support ASHRAE Research, as the Research Committee has put together a half day seminar on a variety of industry topics.

Please see the front page of this newsletter and visit the local ASHRAE website to find out more information and register for one or multiple sessions.

Please feel free to contact me or other Board of Governors members with comments or questions about our Chapter.

James Burke  
President ASHRAE - Wisconsin Chapter  
[james.m.burke@jci.com](mailto:james.m.burke@jci.com)  
414-259-2831

### Where Has All the Gray Hair Gone? *Not necessarily to "Just for Men"!*

This is directed at, let's say, the more experienced members of the HVAC community. Our current Board of Governors, except for one

member who greatly increases the average age, is made up of a group of dedicated men and women who are in the early to early-mid stages of their careers. They have noticed that attendance at meetings rarely includes a significant number of older members and, frankly, they miss you!



And in order to gain the benefits of your hard-earned knowledge and experience, they would really like to see you at some meetings. No time like the present. The March and April programs both promise to be very good events, with topics pertinent to today's designs. My first boss, Andy Morris, who some of you may remember, always said that, "it is important to support the industry that supports you," and I think there is a lot of truth in that concept.

In addition to making the effort to attend one of these meetings (and hopefully more in the future), we ask that you complete a survey that Justin Patrick will e-mail out in the coming days asking how we can make the chapter more meaningful to you. Please complete that form and come on out---we need you!

Bill Armstrong  
Editor  
[billarm@fluidh.com](mailto:billarm@fluidh.com)  
414-358-2646

### Young Members Social Event

At the other end of the age scale, the chapter supports an active student chapter. There will be an ASHRAE Young Members Social Event at **Trinity Three Irish Pubs on Tuesday, March 22nd**. Trinity Three Irish Pubs is located at 125 East Juneau Avenue in Milwaukee. The event will start at 7:00 PM and will include appetizers and drinks. Members do not need to be 21 to



attend; non-alcoholic beverages will be available for those who are not of age.

You don't have to be a student to attend. These men and women would love contact with industry professionals. So whether you are a student or past student, feel free to pass the invitation along to friends and co-workers within the industry. Hope to see you all there!

### **Our Chapter Needs a New Treasurer**

Our current treasurer, Jason Leffingwell will complete his term at the end of the chapter year and we need someone who would be willing to step up and handle the chapters' finances. Please contact James Burke if you are interested. James' contact info is listed at the end of the President's Column.

### **Kickball Spring Training Now Legal**



It is time to get your kickball team together for the annual Spring Kickball Tournament in June. Tourney director Mike Jahner has ruled that it is permissible to begin spring training without fear of sanctions or penalties for early preparation. Rumor is that he is putting together a team of ringers that has been practicing in snowshoes on the Marquette campus. While he would love to tell you a time and place, as you can imagine, it is difficult to book reservations for a park's ball diamonds for a day but he is working on it and details will be forthcoming.

### **Iowa Chapter Sponsors "The World of Green Heating" on March 28<sup>th</sup>**

For details of this special event, see pages 8 of this Badgeraire.

### **ASHRAE Announces Spring Online Course Series**

There is nothing like learning while relaxed with your feet up and sipping your favorite beverage. Please see page 9 for details regarding an impressive array of online courses from headquarters.



### **Mike Stram Golf Outing, June 6<sup>th</sup>**

All members are encouraged to attend this annual event, which serves as the main fundraiser for our Gustave A. Larson Scholarship Fund. In case you missed or misplaced the mailing from JMB, it is included as page 10 of this newsletter.

### **Heads Up on May Meeting**

May Meeting: Chilled Beams Session and Tour, UW Madison Education Building

When May 19, 2011      3:00 Gather for bus ride to Madison

5:00 Presentation and Tour  
6:15 Bus ride to Milwaukee  
7:45 Dinner (optional)

We will be touring the new Chilled Beam Installation at the University of Wisconsin Madison's Education Building. This is the first major installation of its kind in the state. Learn about the design considerations and the control process for this concept that is quickly growing in popularity due to the efficiency gains and LEED potential. We will be picking a central gathering place, and renting a bus to transport attendees to and from the meeting. Because of this we would like commitments early, and are asking that you sign up by April 1, 2011. We are also flexible for timing of dinner, so please indicate if you would prefer to eat in Madison, or upon return to Milwaukee.

## Upcoming Chapter Meetings-Mark Your Calendars!

MEETING DATE / TIME	LOCATION/TIME	TOPIC	SPEAKER
Thurs, March 17, 2011 8:00-After Lunch	MSOE Todd Wehr 1025 N Broadway Milwaukee	Various, See Pages 5-6 for Details	Various, See Pages 5-6 for Details
Thurs, April 28, 2011 5:30 P.M.	Joey Buona's 500 N Water Milwaukee	Central Plant Optimization	Ben Erpelding and Dave Klee
May 19, 20aa 3:00 PM-??	Bus Tour to UW Madison	Tour Education Bldg to See 1 <sup>st</sup> Major Chilled Beam Installation in Wisconsin	To Follow
June 6, Mike Stram Golf Outing	Muskego Lakes CC	Golf and Food	See Page 10 for Details
June, TBA	TBA	Kickball Tournament	Make Jahner, Coordinator

## Other Chapters

For details regarding *surrounding chapter* meetings see:

- Northeast Chapter <http://www.newwisconsinashrae.org/>
- Madison <http://www.ashraemadison.org/>
- Illinois [www.illinoisashrae.org](http://www.illinoisashrae.org).

## **Wisconsin Chapter Officers and Committee Chairs**

President	James Burke
Vice President	Justin Patrick
Secretary	Tim Pann
Treasurer	Jason Leffingwell
Refrigeration	Phil Golden
Membership	Jeff Weis
Research and Promotion	Randy Sikkema
Student Chapter Coordinator	Ryan McNally
Historian	Maggie Roll
Editor	Bill Armstrong
Governor at Large	Brian Lynch
Website and Badgeraire Distribution	Steve Hagman

Wisconsin Chapter of ASHRAE  
SEMINAR  
Presented by the Research Promotion Committee

THURSDAY, MARCH 17, 2011  
8:00 AM TO NOON

MSOE  
TODD WEHR AUDITORIUM  
1025 N. Broadway, Milwaukee WI

REGISTRATION 7:30 AM TO 8 AM  
Coffee, water and juice available

**SESSION 1A:**                      **8:00 AM TO 10 AM**

**Sustainable Airflow Design for Hospitals: Meeting Codes, Optimizing Safety and Achieving Conservation:** Presented by Phoenix Controls and Masters Building Solutions

This presentation is oriented to helping participants make informed design and operational decisions in the planning of their sustainable hospitals. Presentation and open discussion includes; how to establish HVAC design parameters for sustainable hospitals to achieve higher efficiency in building performance. Discussion will include ideas for reduced energy consumption, improved indoor air quality/supportive healing environments and lower operational cost. Come and learn first hand about implementing a sustainable approach to healthcare HVAC design!

Highlights Include:

- New HVAC codes and energy conservation guidelines FGI 2010, ASHRAE 170, ASHRAE 90.1, WY Current construction and renovation market trends
  - Operations and HVAC Facility Challenges: Impact to the Bottom Line
  - Funding, Grant & Research Monies for Sustainable Hospital Construction & Renovation
  - Exploration of Alternative Ventilation for Energy Conservation without sacrificing Patient Safety
- Examples of Sustainable HVAC system design implementation and obtainable savings

**SESSION 1B:**                      **10:00 AM TO 12 NOON**

**VAV SYSTEMS AND DEDICATED OUTSIDE AIR SYSTEMS:** Presented by TEC – Milwaukee and the Carrier Corporation.

- Recall basis principles of the VAV system
- Reasons for designing and installing a VAV system
- Types of zones (heating purpose)
- Describe VAV system components and their functions
- Know the functions of return, exhaust, and supply fans
- Describe control modes, algorithms, hardware, and settings for VAV systems
- Identify necessary sensors
- Know networking requirements
- Identify supply air reset function
- Know the control strategies for VAV reheat
- Know the relationship between CO2 level and DCV
- Describe both existing and emerging compression techniques for direct expansion VAV systems

**Session 1B (Continued)**

- Know the method for capacity modulation in a digital scroll compressor
- Describe the principles of operation of a dedicated outside air unit, both with and without energy recovery.

**SESSION 2A: 8:00 AM TO 10 AM**

**LIFE SAFETY DAMPERS:** Presented by Vyrion Corporation and Greenheck Corporation.

Review Life Safety Dampers to include Fire Dampers, Combination Fire Smoke, Smoke Dampers and Ceiling Radiation dampers (UL555, UL 555S and UL555C.) We will get into the specifics of the installation requirements and what to consider when sizing dampers. We will cover UL requirements for testing and what the industry as a whole has to do to comply with UL.

**SESSION 2B: 10:00 AM TO 12 NOON**

**HEAT RECOVERY AND HEAT PUMP CHILLERS:** Presented by Johnson Controls, Inc.

Understanding the concepts and designing the systems to optimize the use of heat recovery & heat pump chillers.

**12:00 NOON TO 1:00**  
**Lunch and ASHRAE General Monthly Meeting**

**COST:**  
**\$50.00 per person (lunch included)**  
**ALL FUNDS TO GO TO RESEARCH PROMOTION FUND**

**REGISTRATION:**

[www.ashrae-wi.org](http://www.ashrae-wi.org)  
click on registration



**ASHRAE Region VI CRC 2011**  
**Green Bay, Wisconsin**  
**April 14, 15, and 16**

**KI Convention Center**  
**333 Main St**  
**Green Bay, WI 54302**

Mark your calendars for the 2011 Region VI CRC in Green Bay, Wisconsin. Enjoy Titledown Wisconsin at its finest. While visiting the area you can check out the newly renovated Green Bay Packer stadium and atrium, stroll along the rejuvenated downtown and river area, or enjoy some of the other area attractions.

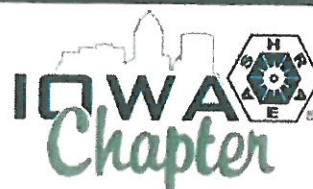
**Registration Fees**

**Attendees:**

- \$60 for Thursday night Welcome Reception and Tours
- \$100 for Friday technical sessions (includes lunch)
- \$60 for Friday dinner and entertainment only
- \$200 for entire event including all (3) items above (package discount)

**Attendee Companions:**

- \$20 Thursday afternoon companion activity
- \$50 for Thursday night Welcome Reception and Tours
- \$40 for Friday afternoon companion activity
- \$50 for Friday dinner and entertainment
- \$80 for entire companion event including all (4) items above (package discount)
- Lake Michigan (Algoma Light House) Heritage Hill State Park



## The World of Green Heating

Presented by Dan Holohan

DATE: March 28, 2011

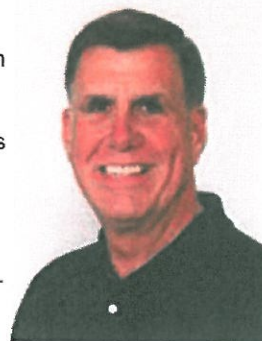
Lunch Buffet: 12:00pm  
Program 1:00-4:00pm  
Social Hour 4:00-5:00pm

Lunch and Program are at the Ramada located just off I-80 on Merle Hay Rd.

Ramada Northwest Inn & Suites  
5000 Merle Hay Road  
Des Moines, IA 50322

Please send Registration Form and payment to the address below before March 22nd, 2011

In this three-hour, technical travelogue, Dan Holohan will take you on a fascinating tour of the heating systems he's visited around the world. He'll explain the thinking that goes into the design of these systems, and talk about what may be coming to the U.S.



"Dan Holohan began his career in 1970 with a New York-based manufacturers' representative. In 1989, he started his own writing-and-speaking business. He's written 16 books and hundreds of magazine columns for a number of our industry's trade magazines. He also owns and operates the popular Heating-Help.com Web site."

### Highlights

- How one old technology can (and does!) dramatically reduce cooling loads.
- Energy Performance Certificates- What they are and why they are slow in coming to America
- Micro-CHP units are changing the way the world heats homes and makes electricity
- Ground-source heat pumps and geothermal - both growing like crazy around the world.
- Why you need your room key to make anything work in a Danish hotel room (and why the escalators don't start until you step on them)
- District hot-water heating systems, and how they're changing the world
- District hot-water systems tied to solar - and geothermal sources (coming to America!)
- And much more!!

### Registration Form

ASHRAE IOWA c/o Tim Grossman

8564 Alice Ave, Suite A  
Des Moines, IA 50325

Phone: 515-276-9005  
Fax: 515-276-8993  
E-mail: [tgrossman@mechsales.com](mailto:tgrossman@mechsales.com)

Make checks payable to ASHRAE Iowa Chapter

Name \_\_\_\_\_  
Address \_\_\_\_\_  
Phone \_\_\_\_\_

- ☐ Lunch \$20 (non-members).  
Free (ASHRAE Iowa members)
- ☐ Program \$75

Qty. Subtotal

\_\_\_\_\_  
\_\_\_\_\_  
Total: \_\_\_\_\_



# ASHRAE Learning Institute Spring 2011 Online Course Series

## 2 WAYS TO REGISTER

**Internet:** [www.ashrae.org/onlinecourses](http://www.ashrae.org/onlinecourses)

**Phone:** Call toll-free at 1-800-527-4723 (US and Canada) or 404-636-8400 (worldwide)

**Note:** You may register up to 24 hours prior to an online seminar. Courses are in US Eastern Standard Time.



**Using Standard 90.1 to Meet LEED Requirements**  
Monday, March 28, 2011 – 1:00 p.m. to 4:00 p.m.

**District Cooling & Heating Systems: Central Plants**  
Wednesday, April 20, 2011 – 1:00 p.m. to 4:00 p.m.

**Fundamental Requirements of ASHRAE Standard 62.1-2010**  
Wednesday, March 30, 2011 – 1:00 p.m. to 4:00 p.m.

**Understanding Air-to-Air Energy Recovery Technologies & Applications**  
Monday, April 25, 2011 – 1:00 p.m. to 4:00 p.m.

**Application of ASHRAE Standard 62.1-2010**  
Wednesday, April 6, 2011 – 1:00 p.m. to 4:00 p.m.

**Basics of High Performance Building Design**   
Wednesday, April 27, 2011 – 1:00 p.m. to 4:00 p.m.

**The Commissioning Process & Guideline 0**  
Monday, April 11, 2011 – 1:00 p.m. to 4:00 p.m.

**Complying with Standard 90.1-2010 HVAC/Mechanical**  
Monday, May 2, 2011 – 1:00 p.m. to 4:00 p.m.

**Avoiding IAQ Problems Using ASHRAE's New IAQ Guide**  
Wednesday, April 13, 2011 – 1:00 p.m. to 4:00 p.m.

**Advanced High Performance Building Design**   
Wednesday, May 4, 2011 – 1:00 p.m. to 4:00 p.m.

**Understanding Standard 189.1 for High Performance Buildings**  
Monday, April 18, 2011 – 1:00 p.m. to 4:00 p.m.

**Complying with Standard 90.1-2010 Envelope/Lighting**  
Wednesday, May 11, 2011 – 1:00 p.m. to 4:00 p.m.



**ASHRAE**  
LEARNING INSTITUTE

## ASHRAE HVAC Design Essential Workshop

May 18-20 • ASHRAE Foundation Learning Center • Atlanta, GA

## ASHRAE Certification Programs

### In three days, you will

- Participate in in-depth, practice-focused training
- Improve overall building performance
- Effectively collaborate on an integrated design team
- Learn from industry leaders selected by ASHRAE
- Gain real-world experience to make immediate contribution to design projects

ASHRAE created the HVAC Design Essentials to provide intensive, practical education for HVAC designers and others involved in delivery of HVAC services. Developed by industry-leading professionals, this workshop provides attendees with the fundamental and technical aspects of HVAC design in commercial buildings.

In three days, you will gain practical skills and knowledge to design, install and maintain HVAC systems that can be put to immediate use. The workshop provides real-world examples of HVAC systems including calculation of heating and cooling loads, ventilation and diffuser selection using the newly renovated ASHRAE Headquarters building as a living lab.

### Who Should Attend

Professionals at:

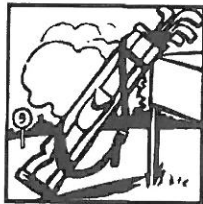
- Mechanical design firms
- Architectural firms
- Mechanical consulting firms
- Facility management departments
- Sales engineering firms
- Utility companies



- Building Energy Assessment Professional (BEAP)
- Building Energy Modeling Professional (BEMP)
- Commissioning Process Management Professional (CPMP)
- Healthcare Facility Design Professional (HFDP)
- High-Performance Building Design Professional (HBDP)
- Operations & Performance Management Professional (OPMP)

For more info, visit  
[www.ashrae.org/  
certification](http://www.ashrae.org/certification)

Visit [www.ashrae.org/hvacdesign](http://www.ashrae.org/hvacdesign) to register



# 10th Annual Wisconsin Chapter ASHRAE

## Mike Stram Open

Monday, June 6, 2011

Muskego Lakes Country Club  
S100 W 14020 Loomis Road (Hwy 36)  
Muskego Lakes, WI  
(414) 425 - 6500

### Afternoon Activities:

Lunch 11:00am  
Shotgun Start - Golf (Scramble) 12:00 pm (Sharp)

### Evening Activities:

Cocktails 4:30 pm  
Dinner 5:30 pm

### Costs:

Lunch & Golf & Dinner \$100.00  
Dinner Only \$35.00  
Lunch & Golf Only \$70.00

Following the event there will be a cash bar, dinner, and the awarding of door prizes. Be sure to hand in your golf scorecards.

### Important!

The committee would appreciate it if you make your **reservations** for **no later** than **May 1, 2011**.

### Golf Package:

Greens Fees - Cart Fees - Club Valet - Starter & Rangers  
Locker Rooms

### Private Grill lunch before registration Included

Hamburgers or Chicken Breast Sandwiches,  
Cheeses, Chips & Fixings

### Buffet Dinner Menu:

Chef Carved Beef Tenderloin  
Chicken Parmesan  
Warm rolls,  
Tossed Dinner Salad with Dressings,  
Chef's choice of two cold salads, one hot vegetable, and one type of Potato and Brownies..

### **Sponsorship for Door Prizes strongly encouraged! Contact Joe Schmidt for more information!**

Major Sponsor: \$1500  
Gold Sponsorship: \$500  
Silver Sponsorship \$350  
Bronze/Hole/Green Sponsor \$200  
Beverage Cart Sponsorship \$1000  
All sponsorships include recognition signs appropriate for each level.

Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
City, ST, Zip: \_\_\_\_\_  
Tel.: (\_\_\_\_) \_\_\_\_ - \_\_\_\_ Fax: (\_\_\_\_) \_\_\_\_ - \_\_\_\_  
Email: \_\_\_\_\_

Include with payment charges - (dinner, golf) and make checks payable to: ASHRAE ENTERTAINMENT COMMITTEE;  
c/o Joe Schmidt (JMB & Associates)

N50 W13906 Overview Dr  
Menomonee Falls, WI 53051

For More Information, call (262) 432-0630 Fax: (262) 432-0635

**All Charges are Due by May 1, 2011**

Names (First & Last. Please Print):	Golf & Dinner (\$100)	Dinner Only (\$35)	Lunch & Golf Only (\$70)	Sponsorship Level	Total
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
Totals					

Please Use Back for Additional Players