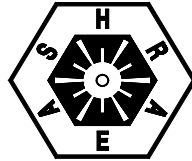


# THE BADGERAIRE

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



## February 17, 2011 Program: Miller Coors Brewery Tour

The Wisconsin Chapter of ASHRAE is hosting this month's meeting at the Miller Coors Brewing Company ammonia plant. Rory Peter, Utilities Unit Manager for Miller Coors will be conducting the tour and presenting the systems, and will cover the following topics:

- Block flow diagram of system
- Discuss system's operation
- Discuss history of equipment
- Describe issues identified previously from an energy efficiency perspective
- Describe modernization undertaken in phase 1 and phase 2
- Tour power house
- Typical plant loads (in close proximity to power house)
- Discussion and questions

The meeting will start in the High Life Room on the second floor of the Miller Inn at 5 pm.

<http://www.ashrae-wi.org/documents/Miller%20Inn%20Picture.jpg>

Parking is available in the MillerCoors structure on Highland Blvd.

For directions, use 3939 W. Highland Blvd, 53208.

See link below for a map

<http://www.ashrae-wi.org/documents/Milwaukee%20Brewery%20Parking%20&%20Miller%20Inn.jpg>

Safety is critical, so for the tour, hard hats, steel toed shoes, eye protection, and hearing protection will all be required. Please plan on bringing your own. Also, jewelry including watches cannot be worn on the tour. There are no exceptions to this.

Following the tour and discussion, we have dinner planned at Saz's State House Room for 6 pm.

Saz's address is :

5539 West State Street  
Milwaukee, WI 53208

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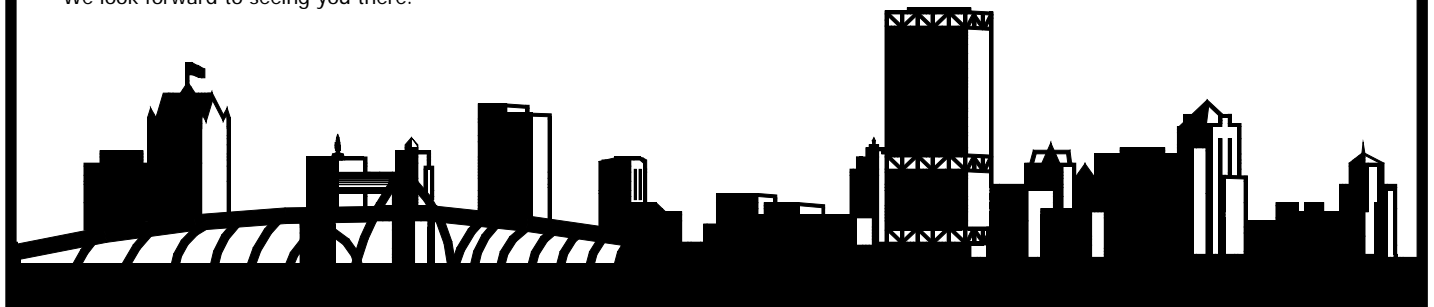
5539 West State Street  
Milwaukee, WI 53208

See link below for a map

<http://www.ashrae-wi.org/documents/Saz's%20Map.gif>

This tour is limited in size, so please sign up as soon as possible so that you get to attend.

We look forward to seeing you there.



## President's Column

Hello again everyone and I hope this Newsletter finds everyone warm and sheltered from the frigid cold outside. It's the typical February cold weather hat should make us all appreciate the industry in which we are in and the critical nature of the heating systems we design, install, and service.

Our January Chapter meeting was the always well attended Code Refresher presented by Randy Dahlman of the Wisconsin Department of Commerce. I would like to thank Randy for continuing to support our ASHRAE Chapter by presenting the updates/changes to the Codes which effect our industry.

The February meeting will be a tour of the Miller Brewing Company and should prove to be an interesting and educational opportunity to learn about the refrigeration process which goes into the production of the beverage which made our City famous. I would encourage all of our members to sign-up for the tour and join us afterwards at the Saz's Stateroom for food and beverages.

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  
414-259-2831

## ASHRAE Technology Awards

Each year, our WI ASHRAE chapter offers consideration for technology award for projects in our area that exhibit energy efficiency in buildings and environmental system performance. Some years our chapter will receive some, some years we don't receive ANY! Last year, our chapter had a technology award submission that won at the chapter and regional level and went on for national competition. It took 2<sup>nd</sup> place in its category (New Commercial Buildings). We are once again accepting submissions for chapter level consideration. We recommend using the Short Form Application, which is only 1 page. Applications are available online at <http://www.ashrae.org/members/page/1646>, or by request from Aaron Ting at

[aaron.ting@auersteel.com](mailto:aaron.ting@auersteel.com). Applications are due before April 1<sup>st</sup>, 2011. Good Luck!

## GEOTHERMAL HEAT PUMP COURSE

### Architects and engineers course on geothermal heat pump systems slated for April 11 in Chicago

A one-day course for architects and engineers, "[Performance, Design, and Specification of Geothermal Heat Pump Systems \(GHPS\) for Schools and Commercial Buildings](#)," will be offered April 11 in Chicago by the National Ground Water Association (NGWA).

The American Institute of Architects (AIA) registered course offers participants 6 LU/HSW/SD in continuing education. The course examines:

- Advantages and opportunities in geothermal GHPS
- Keys to designing and writing specifications to meet a building's requirements
- Using computer-aided design tools for geothermal designs
- How variables in drilling, geologic, and site conditions can affect the system design and costs.

Those who will benefit include architects and engineers interested in gaining or improving their knowledge about the capabilities and design of geothermal heat pump systems. This intermediate-level course assumes that participants will have a good understanding of building loads and have at least some experience designing geothermal systems.

The instructors are David Henrich, CWD/PI, IAI, Geothermal Division manager for Bergerson-Caswell Inc., Maple Plain, MN; Gary Shawver, MGWC, president of Shawver Well Co. Inc., Fredericksburg, Iowa; and Lee Tapper, PE, CIAQP, LEED, MEP Associates LLC, Rochester, MN.

To learn more about this course, visit [www.ngwa.org](http://www.ngwa.org) or call 800 551.7379 (614 898.7791).

## Upcoming Chapter Meetings-Mark Your Calendars!

MEETING DATE / TIME	LOCATION/TIME	TOPIC	SPEAKER
February 17 Afternoon Meeting	Miller Coors Brewery Tour 5pm	Ammonia Plant Tour	Rory Peter
March 17, 2011	TBD	½ Day Tech Seminar on a Variety of Topic	Various but St. Patrick is Confirmed

### Other Chapters

For details regarding *surrounding chapter* meetings see:

- o Northeast Chapter <http://www.newisconsinashrae.org/>
- o Madison <http://www.ashraemadison.org/>
- o 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
Phil Golden	Refrigeration Chair
Jeff Weis	Membership
Randy Sikkema	Research and Promotion Chair
Ryan McNally	Student Chapter Coordinator
Maggie Roll	Historian
Bill Armstrong	Editor
Brian Lynch	Governor at Large
Steve Hagman	Website, Badgeraire Distribution

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 DOH Updates (if needed), other codes that apply
- 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  
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 Vyron 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