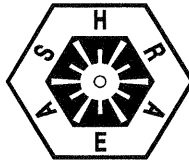


# THE BADGERAIRE

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

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A PUBLICATION OF THE WISCONSIN CHAPTER OF ASHRAE

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## May 21, 2008 Program: Schlitz Audubon Nature Center Tour

Our May program will be a tour of the Schlitz Audubon Nature Center (SANC) on Brown Deer Road in Milwaukee. The SANC has been open since May 2003 and is noted as one of the most environmentally friendly buildings in the area as the SANC received a LEED Gold award from the U.S. Green Building Council. It was determined early in the project that sustainability was very important to the Center and they decided to "walk the talk" and build the "greenest of the green" sustainable facilities, using the LEED rating system as an environmental quality control yardstick.

The Schlitz Audubon Center has some of the following unique features:

- Extensive use of natural light, with specially designed and placed window systems that reduce energy needed for lighting
- A geothermal heating system that uses 90 groundwater wells and the earth's temperature to provide heating and cooling
- A 10-kilowatt photovoltaic solar power system, donated by WE Energies, that supplies 10 to 20 percent of the building's electricity
- Low-flow plumbing that helps protect the environment by reducing water usage

The Center's green building provides much-needed space for classrooms, an auditorium, interactive exhibits, Wisconsin's first nature preschool, and a nature store. Since its inception, the building has served as a teaching tool and will increase the awareness of the use of sustainable building techniques and materials and promote green building for the future. For our tour, we will be focusing on why the SANC decided to go for LEED certification, how the building is operated, and if it has lived up to its expectations from an energy use standpoint. The SANC is tucked just 40 feet away from the surrounding natural landscape, so the building acts as a portal to the Center's sanctuary bringing the outside in and provides plenty of space for learning, gathering, and relaxing. We hope you can join us for this end of the year celebration.

Program Date: Wednesday, May 21, 2008

Program Location: Schlitz Audubon Nature Center (1111 E. Brown Deer Rd.)

Registration Time: 11:30 am

Tour Time: 12:00 pm – 1:00 pm

Lunch to Follow (Location TBD)

Prices: The program cost is \$20 for non-members. There is no cost for local Wisconsin Chapter ASHRAE members. Checks should be made payable to the "Wisconsin Chapter of ASHRAE."



**From the President's Desk  
By David Grassl**

Well, the ASHRAE year is virtually at its end as we have our final 07/08 meeting at the end of the month. Our final meeting until next September will be a tour of the Schlitz Audubon Nature Center, one of our very own LEED gold Certified Buildings. After our April meeting on LEED Documentation, this should be a great chance to see what a LEED building looks like and how it was built with sustainability in mind.

Reflecting on the past year, we have had some great meetings from both a topic standpoint and also looking at turnouts. At our yearly Randy Dahmen meeting we had over 100 people, which is the first time we have had over 100 people in attendance since I have been involved in ASHRAE. We also had close to 70 people for both our Solar Heating and Optimization in Chilled Water Plants Presentations. We hope this is largely due to the topics and I hope to see continued growth in our meeting attendance in the years to come. I hope everyone has taken something from our meetings over this past year.

On another note, our Chapter Regional Conference (CRC) is taking place from May 15<sup>th</sup> to 17<sup>th</sup> in Chicago. I would like to encourage anyone that is able to attend for a day or the whole conference to go and see the work of our Chapter members, Regional members, and National members working toward improving our organization. I find the CRC to be an inspiring conference where lots of ideas are born and that we at the Chapter level will bring back home in hopes of increasing membership, improving meeting attendance, etc.

Finally, since it is the end of the year, it is the time for me to pass the torch to our next President, which will leave us in great hands for the upcoming year. I am really proud and happy of our entire BOG and other workers who have helped with their work this past year. It is always the people behind the scenes that don't get the recognition they deserve and there are many people in the organization that make things work so well, so thank you all for your help over the past year, your work does not go unnoticed. I look forward to continuing to serve the Wisconsin Chapter, so I still encourage everyone to let me

know if there is something I can do to make our Chapter a better one. Thank you for allowing me to serve our Chapter and I hope to see you all next year!

**A Worthy Recognition –  
Johnson Controls, An ASME Historic  
Mechanical Engineering Landmark**

Within our Wisconsin Chapter, there are always individuals and/or companies that go above and beyond the call of duty and do something spectacular or set the trends of our industry. Recently, Johnson Controls has been accepted by the ASME national history and heritage committee to be received as a historic mechanical engineering landmark, a very worthy accomplishment.

Johnson Controls has recently been acknowledged for Warren S. Johnson, the founder of Johnson Electric Service Company in Milwaukee, known today as Johnson Controls, and his invention of the pneumatic temperature control system. Mr. Johnson developed an entirely mechanical pneumatic control system that economically automated the process of maintaining temperature in multi-zone building heating systems for building comfort.

Mr. Johnson's system employed a thermostat which he patented that used a bimetallic element to control air flow through a nozzle and thereby operate a pilot regulator. The amplified air signal from the regulator was conveyed through a single tube to a steam or hot water valve on a heat exchanger, or alternatively the amplified pneumatic signal could be used to control the damper of a forced air system. This system allowed the practical, automatic regulation of individual room temperatures for the first time, and could be used on hot water, steam, and forced air building heating systems, or combinations thereof. Warren S. Johnson subsequently developed devices that allowed his pneumatic control technology to be adapted to control air conditioning systems, as well as to automatically control various process applications. His innovations launched the building control industry and were the impetus for his new company. They were immediately adopted throughout the United States and eventually the rest of the world.

The system covered by Warren S. Johnson's was the first complete automatic temperature control system that could be economically manufactured, installed and maintained. The secret was a unique three-way valve, which controlled the flow of compressed air via the pneumatic thermostat. The way this valve operated delivered a combination of reliability and precision that had been unattainable before. The Johnson System of Temperature Regulation became the standard for pneumatic control systems in commercial buildings.

Examples of the earliest controls developed by Warren S. Johnson are located in the artifact room on the Johnson Controls Building Efficiency headquarters in downtown Milwaukee. A complete pneumatic temperature control system is being assembled from these artifacts and will be placed on display in the lobby of this building, where it will be available for view by the general public. This building, located on the North East corner of Michigan Street and Jackson Street, was the original factory and headquarters for Johnson Controls, built in the early 1900s.

### **UPCOMING ASHRAE BALLOT**

In early May 2008, as you may or may not be aware of, all ASHRAE members can expect to receive an ASHRAE Ballot by mail or electronically for a vote to clarify ASHRAE's policy on IAQ. In the upcoming vote, 5 IAQ Questions related to ventilation have been placed on the Society Ballot by the Board of Directors (BOD), similar to a membership petition. These questions were developed by a Presidential AD Hoc Committee as an attempt to clarify the intent of a 1999 Members Petition concerning Standard 62. The ballot will some provide background information and the board's recommendation.

As with any ballot, there are always two sides to the situation, so as the Wisconsin Chapter, our intent is to provide a basic knowledge of the Ballot for our members prior to the vote. A small number of concerned members felt there was no means for an open response and discourse on the questions, so we are hoping to open the means of communication within our Chapter, while at the same time, an electronic discussion board has been established by Society for this purpose. This discussion board will allow members to read the questions, background

information, the Board's recommendation, and post any other comments on the questions. This will allow the ASHRAE Membership an open dialog on the questions and provide a central location where all members can read opinions and supporting information. Hopefully this will allow each member to reach their own informed decision on the proposed questions.

As the Wisconsin Chapter, our primary goal is to make everyone aware of the upcoming vote in May. The Wisconsin Chapter is not attempting to recommend a yes or no vote, but rather to supplement the National discussion and provide some background to both sides of the argument. Listed in this edition of the BadgerAire we have provided the questions that will be appearing on the Ballot. If you would like to learn more about the questions, we have also posted a summary of discussions for both sides on our website (under Items of Interest) at [www.ashrae-wi.org](http://www.ashrae-wi.org). If you are interested in additional information and/or would like to contribute your opinions in the open discussion board, please visit ASHRAE's website at [www.ashrae.org](http://www.ashrae.org).

The following are the five questions that will be on the upcoming May 2008 ASHRAE ballot:

#### Question 1

Should ASHRAE Standards and Guidelines contain health-based limits for pollutant concentrations only when those limits have previously been issued by nationally or internationally recognized health authorities, e.g. U.S. EPA, OSHA or the World Health Organization, and for which standardized measurement methods exist?

#### Question 2

Should ASHRAE Standards and Guidelines be allowed to specify means and methods for limiting the concentrations of pollutants normally considered in the design of HVAC systems, even for pollutants that may not have maximum permissible concentration levels set by a recognized health authority or for which standard measurement methods don't exist?

#### Question 3

Should ASHRAE Standards and Guidelines be precluded from requiring measurement of contaminant or other airborne concentrations or specify concentration limits that cannot be measured using equipment and procedures in ASHRAE Standard 111, "Practices for Measurement, Testing, Adjusting and Balancing of Building Heating,

Ventilation, Air-Conditioning and Refrigeration Systems,” or are not covered by other consensus Methods of Test or are not measurable using equipment that is common in building ventilation assessment?

Question 4

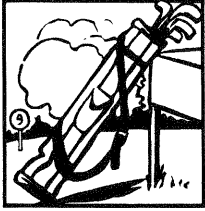
Should ASHRAE Standards and Guidelines strive to provide health, comfort and/or occupant acceptability consistent with ASHRAE policy?

Question 5

Should ASHRAE Standards and Guidelines be permitted to contain factors for use in design calculation, such as mixing efficiencies and air change effectiveness, as long as it is the consensus of the standards writing body that these factors are important to providing acceptable indoor air quality?

**Don't Miss the June 2<sup>nd</sup> Golf Outing!**

We have attached a flier for the upcoming golf outing. According to this publication, entries closed May 2<sup>nd</sup>. If you hurry you can still sign up a foursome. Sign up can be accomplished on the Wisconsin Chapter web site, [www.ashrae-wi.org](http://www.ashrae-wi.org). We have included a copy of the flier on the next page in case you do not have yours.



7th Annual Wisconsin Chapter ASHRAE

**Mike Stram Open**

Monday, June 2, 2008  
 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)  
 Sheephead in Pub 12:00 pm  
 (If there is inclement weather all will be inside.)

Evening Activities:

Cocktails 4:30 pm  
 Dinner 5:30 pm

Costs:

Lunch & Golf & Dinner \$100.00  
 Lunch & Cards & Dinner \$60.00  
 Dinner Only \$35.00  
 Lunch & Golf Only \$70.00  
 Lunch & Cards Only \$25.00

Following the event there will be a cash bar, dinner, and the awarding of door prizes

**Important!**

The committee would appreciate it if you make your **reservations** for **no later** than **May 2, 2008.**

Golf Package: Greens Fees – Cart Fees – Club Valet – Starter & Rangers Locker Rooms – **Private Grill lunch before registration Included** .(Hamburgers & Chicken Breast Cheeses, Chips & Fixing. Be sure to hand in your golf scorecards to a committee member.

Buffet Dinner Menu:

Bourbon Glazed Ham  
 Peppercorn Beef Tips  
 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 Jim Boland 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 Jim Boland (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 2, 2008**

Names (First & Last. Please Print):	Golf & Dinner (\$100)	Cards & Dinner (\$60)	Dinner Only (\$35)	Golf Only (\$70)	Cards Only (\$25)	Sponsorship Level	Total
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
<b>Totals</b>							

Please Use Back for Additional Players

WISCONSIN CHAPTER OF ASHRAE  
 P.O. BOX 13643  
 WAUWATOSA, WI 53186-0443



**Upcoming Meetings-Mark Your Calendars!**

MEETING DATE / THEMES	LOCATION	TOPIC	SPEAKER
Wenesday, May 21, 11:30 A.M.	Schlitz Audabon Nature Center	Tour	
Monday, June 2, Noon	Muskego Lakes	Annual Wisconsin Chapter Golf Outing	