



The Razorback Report

www.arkansasashrae.org

Volume XX, Issue 3, November 2008

Arkansas Chapter Newsletter for the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

NOVEMBER MEETINGS

Northwest Arkansas

Date: Tuesday, November 4th

Location: AQ Chicken, Fayetteville

Cost: TBD

Schedule:

4:30 pm Steering Committee Meeting

5:30 pm Social

6:00 pm ASHRAE Business / Dinner

Program—"Maintain to Sustain" - Bill Harrison

Central Arkansas

Date: Wednesday, November 5th.

Location: Next Level Events

Cost: \$20 / person

Schedule:

10:30 am Board Meeting

11:30 am Tech Session - TBA

12:00 pm Lunch

12:15-1:00 pm Program - "Maintain to Sustain" - Bill Harrison

The President's Message

By Kim Koch

Chapter President

The day after we elect a new president for our nation I invite you to come hear from our ASHRAE society president. Our presentation this month will be given by our own Bill Harrison. As you may know Bill is traveling internationally this year to spread his ASHRAE message of "Maintain to Sustain." We are excited to have him here in his home chapter this month.

This month is also our student meeting. As always students are welcome free of charge at any meeting, but we especially encourage them to come to this meeting. We hope to have a good group down from Arkansas Tech.

We all owe a big thank you to Tony DeMarco again this year for successfully pulling off another ASHRAE Research Golf Tournament. As Tony promised the weather was perfect, but it would have been nice if the thirty mile per hour wind had blown with our shots at least half as often as it seemed to blow against us.

Speaking of Arkansas Research we will be kicking off our campaign with a vote from the chapter to donate our annual chapter contribution. Please consider making your own personal contribution either on-line or through Steve Titus at this same time.

See you at the meeting.

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ASHRAE 2009 Winter Conference & AHR Expo

**McCormic Place
Chicago, IL**

**You Can
Register Now at:**

www.ashrae.org/chicago

Month	Tech Session	Speaker	Meeting Topic	Speaker	Section	Date	Location	Meeting Designation	Sponsor
Sept	BIM— Lessons Learned	Mike Fullerton	ASHRAE & BIM	Gordon Holness ASHRAE President Elect	Central	9/4	Next Level Events— Union Station	Membership Promotion	TBA
					NWA	9/4	Golden Corral		
Oct	Eco Friendly Water Treatment	Gary Wirges	Water Conservation In The Sustainable Environment	Dennis Schnell	Central	10/1	Camp Aldersgate	Sustainability	TBA
					NWA	10/2	Whole Hog		
Nov	NA	NA	Presidential Visit— Maintain To Sustain	ASHRAE President Bill Harrison	Central	11/5	Next Level Events	Student Meeting	TBA
					NWA	11/4	AQ Chicken		
Dec	Research Promotion	Steve Titus	Data Center Cooling Requirements	Mike Lawler	Central	12/3	Camp Aldersgate	Research Promotion	TBA
					NWA	12/4	TBA		
Jan	TBA – <i>Joint Meeting with CSI</i>	TBA	Beyond The Code	TBA	Central	1/13	Camp Aldersgate	Joint Meeting w/ CSI	TBA
	TBA	TBA	TBA	TBA	NWA	1/8	TBA		
Feb	TBA	TBA	Modern Refrigerant Piping Practices	TBA	Central	2/4	Camp Aldersgate	Refrigeration	TBA
					NWA	2/5	TBA		
March	TBA	TBA	ASHRAE 90.1-2007 Update	Mick Schwedler	Central	3/4	Camp Aldersgate	Student Day	TBA
					NWA	3/5	TBA		
April	TBA	TBA	Tour Bethel Elementary	NA	Central	4/1	Bethel Elementary Bryant AR	Sustainability	TBA
	TBA	TBA	Tour Tyson Discovery	NA	NWA	4/2	TBA		
May	Social	NA	Past Presidents Night	NA	Central	TBA	Dickey Stephens Park	TBA	TBA
					NWA	TBA	TBA	TBA	TBA

NW Section Update

Submitted by Landon Lay — NW Section Chair

I wanted point out that the northwest Ark ASHRAE meeting will be taking place on Election Day so hopefully you can make arrangements to vote prior to the meeting. You can vote prior to Election Day at the early voting locations for Benton and Washington County listed in the following links:

<http://www.co.benton.ar.us/BCCLerk/earlyvoting.html>

<http://www.co.washington.ar.us/ElectionCommission/ElectionInformation/FinalNoticeofElection.htm>

(scroll down to bottom)

Check out the latest updates to our chapter website at www.arkansasashrae.org



Help ASHRAE Retain Student Members as they begin their careers

See Page 8



Refrigerant Update

Submitted by : Mark Emmerling

R-22 Update

At this time there are no sales limitations on R-22 refrigerant. R-22 will be produced up to the year 2020. After that time the sales of R-22 will be available. However, the supply will be limited forcing the price higher.

R-22 HVAC equipment can be manufactured until January 2010 at which time R-22 must be phased out for use in new equipment. There are currently no restrictions on the sale of R-22 equipment after 2010, only the manufacturing of equipment using R-22.

Where are we going? There is currently no drop in replacement for R-22 due to the lubrication oils used in the refrigerants. R-22 has a mineral oil base and replacement refrigerants have synthetic based oils. R-407C is the recommended refrigerant for retrofitting R-22 equipment. R410A is the recommended replacement in new unitary applications and small compressor (30 tons and below) applications.

R-410A will operate at higher pressures than R-22. Manufacturers must redesign their equipment to accommodate the higher operating pressures. This includes service tools such as gauge sets, hoses, recovery cylinders and recovery machines. R-410A is a blend of R32 and R-125 with a glide level of 0.2 and must use a Polyol ester lubricant. This compares to R-22 with a glide level of 0 and uses a mineral oil lubricant. R-22 at 40 degrees F has a pressure of 68 psig. R-410A at the same temperature has a pressure of 118 psig.

R-407C, retrofit for R-22, is also being used by some manufacturers in new reciprocating compressor applications. R-407C is a blend of R32, R-125 and R134a. These blends tend to leak at different ratios. Therefore, service technicians must recovery the refrigerant and add new if a leak occurs. R-407C pressure and temperatures are similar to R-22, allowing the retrofit of existing R-22 equipment. However, R407C must use a Polyol ester lubricant similar to R410A

Membership Report

Submitted By: Joel Funkhouser – Membership Chair

I'd like to welcome our newest members: Terry Jacks of Little Rock, Jason Draper of North Little Rock, and Dustin Easterly of North Little Rock. I applaud you for your interest in the HVAC&R field and look forward to seeing you at our September meeting!

We have a strong chapter, and additional members will help to make us even stronger. Our chapter's membership has increased slightly over the past year, and everyone that attends meetings is encouraged to seek membership to aid in strengthening our chapter. As always, if you have any questions pertaining to membership, please contact me and I'll be happy to assist you.

Meeting Minutes

Submitted by Marc White—Secretary

Board Meeting of October 1, 2008

Officers and Board Members Present

Chris Ahne, President-elect/CTTC
Steve Keen, Treasurer
Marc White, Secretary
Don Huggins, BOG

Chris Shaw, BOG

Committee Chairs Present

Bill Simpson, Student Activities Chair
Lee Greeson, Reception Chair
Mark Ring, Newsletter Editor
Joel Funkhouser, Membership Chair
Tony Demarco, Social Chair
AD, Webmaster
Tom Hanlon, Sustainability Chair

Board Meeting Minutes

Chris Ahne opened the meeting by asking Steve Keen if the chapter's records had been received by the auditing committee. Steve stated that the information had been delivered. Chris then talked about next spring's CRC in Lubbock, TX and encouraged everyone to try and attend. Chris mentioned the chapter's need to register with the Arkansas Attorney General to which Steve Keen replied that he would send in a copy of the chapter's tax return by November. Steve also stated that the chapter's form for tax exempt status has been filed with the Secretary of State. Steve commented that he will be meeting with the chapter's accountant on Friday.

Chris Ahne went on to mention ASHRAE technology awards and asked that anyone who knew of a good energy efficient design that has been installed for at least one year consider submitting it for an award. Chris said that a request had been made by a member to pay for various chapter activities with a credit card. The chapter does not currently have that capability. The need was discussed among the board members and due to the associated fees and the low number of requests to pay with a credit card it was decided not to pursue that at this time.

Steve Keen distributed September's treasurer's reports to the board members. The budget and balance sheets were approved by acclamation.

(Continued on page 11)

Student Activities

Submitted By: Bill Simpson – Student Activities Chair



Many of you may know students busily working on end of semester projects or preparing for finals in the next couple months. Though some may be hazier than others, you may even be able to remember those days yourself. In honor of the students' and student advisors' efforts, Arkansas ASHRAE has dubbed the November meeting the official student meeting. We hopefully anticipate seeing a few young faces at the meetings this month. We also want to encourage membership to invite any budding young engineering (or potential engineering) students to join us. Remember: our chapter pays for all student meals for monthly meetings and student membership dues. As well, this is a rare opportunity for students to see a presentation by our Society President, Bill Harrison.

Furthermore, in honor of student month, this is a great opportunity to highlight and say thanks to a few chapter members who have contributed recently to the cause of student activities. Recently Jason Brannen, our NW Student Activities Liaison, met with approximately 15 of Dr. Nutter's engineering students at U of A. In addition to talking to the class about ASHRAE and careers our industry has to offer, Jason freely discussed real life issues that students would be faced with as an engineer when they graduate.

Our ATU Student Advisor, Professor Wayne Helmer, has devoted time to chairing the Project Lead the Way program in Arkansas. "Project Lead the Way Inc. (PLTW) is a national program forming partnerships among Public Schools, Higher Education Institutions and the Private Sector to increase the quantity and quality of engineers and engineering technologists graduating from our education system." As this mission closely aligns with one of the core missions of ASHRAE, we've asked Dr. Helmer to give us a brief overview on what is going on with PLTW in Arkansas and how we as a group of engineers can help.

In the upcoming week, Chris Ahne will devote a full day to meeting and mentoring students at his alma mater, Subiaco Academy. Chris and many others have contributed regularly to the efforts of student activities in years passed. Thanks to all our chapter members who continue to encourage students and young people.

As a general note, the chapter scholarship deadline is December 1. Any graduating high school senior interested in pursuing a degree in engineering or college student enrolled in an engineering or HVAC related 2 or 4 year program is eligible for our scholarship. Students can contact me at wsimpson@trane.com for a copy of the application. Coincidentally, the society scholarship deadline is also December 1. Society scholarship applications can be downloaded at www.ASHRAE.org. It should be noted that several Arkansas students have received society scholarships in years past.

Future ASHRAE Meetings:

2009 ASHRAE Winter Meeting
January 24 - 28
Chicago, IL

2009 ASHRAE Annual Meeting
June 20 - 24
Chicago, IL

2010 ASHRAE Winter Meeting
January 23-27 2010
Orlando, FL

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2007-2008 Chapter Officers

<u>President</u>	Kim Koch	501.666-6776	kkoch@tmecorp.com
<u>Vice-Pres.</u>	Chris Ahne	501.661-0621	cahne@trane.com
<u>Treasurer</u>	Steve Keen	501.374-5420	skeen@powersar.com
<u>Secretary</u>	Marc White	501.664-3311	mwhite@batsonbravo.com

Board of Governors

Charles Wetzler	501.590-2703	cgwetzler@yahoo.com
Don Huggins	501.374-3731	dhuggins@pettitinc.com
Chris Shaw	501-280-0404	chris@airetechcorp.com
Steve Titus (CRC Alternate)	501-280.0404	chance@airetechcorp.com
John Hodoway (CRC Delegate)	501.372.2900	john.hodoway@mail.ashrae.org

Committee Chairs

Membership	Joel Funkhouser	jcfunkhouser@garverengineers.com
Student Activities	Bill Simpson	wsimpson@trane.com
Programs	James Dayer	jdayer@fluidsolutionsinc.com
Historian	Steve Titus	sctitus@aristotle.net
Refrigeration	Miguel Purdy	mlpurdy@vcaw.com
Research Promotion	Steve Titus	sctitus@aristotle.net
Newsletter	Mark Ring	mark@airetechcorp.com
Publicity	Charlotte Bruner	charlotte@johnprinceco.com
NW Section	Landon Lay	landon.lay@hei-eng.com
Social	Tony Demarco	tony@airetechcorp.com
Reception	Lee Greeson	lgreeson@batsonbravo.com
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Continuing Education	John Carter	john@jtcarterco.com
Sustainability	Tom Hanlon	thanlon@tmecorp.com

THE RAZORBACK REPORT

ARKANSAS CHAPTER OF ASHRAE
 P.O. Box 180
 LITTLE ROCK, AR 72203

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.

Arkansas Chapter Meeting RSVP Form

Company Name: _____

Phone #: _____ Fax #: _____

Signed: _____

ROUTING

For reservations to the Central Arkansas Chapter meeting send this form by **Friday October 31st** to **Kim Koch** : kkoch@tmecorp.com or via **FAX** at 501- 663-8888

For reservations to the Northwest Arkansas Chapter meeting send this form by **Friday October 31st** to **Landon Lay** : landon.lay@hei-eng.com or via **FAX** at 479-361-5977.

MEMBER NAME (PLEASE PRINT)	CENTRAL November 5th.	NW ARK November 4th.	EATING (Y or N)

NOTES: Please fax this form to the name and fax number as referenced above
 The meal is no cost to student members, however an RSVP is necessary.
 All "no shows" will be responsible for the cost of their meal.
In order to provide you with the best service for your Chapter's money, it is necessary to RSVP for each meeting.

RSVP for the November meeting online at www.arkansasashrae.org

November Meeting Topics

Tech Session - TBA

Program - "Maintain to Sustain" - Bill Harrison

Student Activities

Submitted By: Tarra Holman – Assistant Manager of Student Activities



As ASHRAE continues to communicate our mission to the student members in the society that life-long membership is valuable, we would like to invite you to share what your affiliation with ASHRAE has meant to you and your career. We have launched a 16,40,40 student transfer program that allows graduating students to transfer their membership to associate membership for only \$16 at year 1, \$40 year 2 and \$40 year 3. We understand that \$165 may be pretty steep for new graduates entering into their careers making it hard for us to communicate to them that membership in ASHRAE will benefit them for years to come. This is why we created this special program.

We have a few questions we would like you to answer that will help us share how involvement in the society as a student helped you then and in the professional world now. These profiles will be used in some of our marketing and newsletters promoting this program. We welcome you to include any additional information you feel would help tell your story and we gratefully appreciate you telling it. Thank you for taking the time to answer the questions below. We also invite you to send a photograph of yourself in either JPEG or EPS format for use in future communications.

Your Name

State

Degree

University

Current job—describe all duties

Please share why you chose Mechanical Engineering for your career

How did you learn about ASHRAE? When did you join? Why?

Describe ASHRAE experience? How has ASHRAE furthered your career, etc?

What would you say to current engineering students about getting involved in ASHRAE?

Any additional comments?

Thank you for your time,

Tarra Holman

Assistant Manager of Student Activities

tholman@ashrae.org



2008 – 2009 ASHRAE Education Series

The Alamo ASHRAE Chapter would like to invite you to the first in a series of HVAC Classes. These classes are designed for people within the HVAC industry including engineers, contractors, building owners and engineering students. The single Fall class will be 4 hours in length, taught by McHenry “Mack” Wallace. PDH Credits will be given for those individuals that require this for their engineering license.

Class is scheduled to be held at Southwest Research Institute, Administration Building (B160) in the auditorium. Please return this form to James Drewry at email jdrewry@jd3engineering.com.

A portion of the funds generated from these classes will go directly to ASHRAE Research. Please make checks payable to ASHRAE.

FALL 2008 Session: \$300

Complying with Standard 90.1 – 2007 HVAC/Mechanical

November 14, 2008
8 AM – 12 Noon

Instructed by: McHenry “Mack” Wallace

YES! I want to attend:

NAME: _____

COMPANY: _____

EMAIL: _____

ASHRAE Press Release

Submitted by Wendy Angel - ASHRAE Public Relations

IFMA, ASHRAE COLLABORATE ON ENERGY EFFICIENCY ISSUES

ATLANTA — (Oct. 7, 2008) — With buildings accounting for 40 percent of primary energy use in developed nations, it is becoming increasingly important to find ways to build and operate them in an energy efficient manner. In recognition of this, the American Society of Heating, Refrigerating and Air-Conditioning Engineers and the International Facility Management Association are entering into an agreement that increases cooperation between the two groups.

The memorandum of understanding, to be signed at IFMA's [World Workplace 2008 Conference & Expo](#), calls for sharing resources and collaborating on projects, publications, sustainability research and educational offerings that will be beneficial to both organizations' members and constituents. ASHRAE and IFMA will also work together on legislative and regulatory issues through their Washington, D.C., offices.

"Engineers and facility managers share an important relationship in creating and maintaining buildings that are safe, healthy and energy efficient," said Bill Harrison, ASHRAE president. "Now, ASHRAE and IFMA are seeking to take that cooperative relationship to the next level. This agreement strengthens the existing partnership between our two organizations. By working together on issues in the built environment, we can enhance our respective efforts to create a sustainable future."

"ASHRAE's indoor air quality standards have long provided benchmarks and guidelines for facility managers to use in keeping workers comfortable, safe and productive," said David J. Brady, IFMA president and CEO. "In the new era of triple bottom line accountability on financial, social and environmental contributions, the need for energy vigilance and conservation is greater than ever."

The memorandum will be signed at 2:30 p.m. on Thursday, Oct. 16, at a press conference during World Workplace. Long recognized as the world's premier educational and networking conference for facility managers and those in related fields, World Workplace brings industry leaders from the world's top business and government organizations together with educators and exhibitors to focus on the future of the work environment. Now in its 29th year, the conference will feature 83 educational sessions and new product demonstrations by more than 300 manufacturers from across the globe.

World Workplace will be held Oct. 15-17 at the Dallas Convention Center in Dallas, Texas. For a complete list of conference details, visit www.worldworkplace.org.

About IFMA:

IFMA is the world's largest and most widely recognized international association for professional facility managers, supporting more than 19,000 members in 60 countries. The association's members, represented in 125 chapters and 15 councils worldwide, manage more than 37 billion square feet of property and annually purchase more than US\$100 billion in products and services. Formed in 1980, IFMA certifies facility managers, conducts research, provides educational programs, recognizes facility management certificate programs and produces World Workplace, the world's largest facility management conference and exposition. For more information, visit

www.ifma.org.

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Marc White informed everyone that the meeting minutes would be sent to the board members and committee chairs for review and comments. Any comments will be incorporated and the final copy sent to Mark Ring to place in the next newsletter. The Board Meeting Minutes from September were approved by acclamation.

Lee Greeson reported that check-in for the monthly meetings seems to be improving with the new name tags and check-in procedures. He also informed the board that members are being asked as they check in for the meetings if they have carpooled to the event and that information is passed along to Chris Ahne.

Tom Hanlon gave a report on the recent NEBB seminar. There were 45 attendees for what was a good program on fume hood technology, lab controls and commissioning. A check will be forthcoming to the chapter for our portion of the proceeds. Tom mentioned that he would be very interested in the chapter participating in a Habitat for Humanity project on some Saturday in the future. There appeared to be good interest among the board members who asked Tom to pursue a project for the chapter in the February time frame.

Chris Ahne mentioned that 3 topics are being considered for a spring continuing education seminar. A poll will be emailed to chapter members to select the topic. There is also the possibility of the chapter presenting a seminar on building maintenance to BOMA. Chris announced that next month's meeting will be held at Next Level Events on November 5. The northwest Arkansas meeting will be held on November 4. Chris asked for volunteers to provide technical articles for the newsletter and also stated that he would contact Charles Wetzler about writing an article. Regarding government affairs, Chris stated that he would approach Mike McClellan about chairing that committee.

Bill Simpson announced that we would need to postpone student day until next month's meeting. Bill has delivered scholarship forms to the student advisors and is working to coordinate a time to go and speak to one of Dr. Helmer's classes at Arkansas Tech University. Bill is planning to write a letter to the engineering departments at UA and ATU to thank Drs. Nutter and Helmer respectively for their involvement in ASHRAE.

AD announced that he will make the power point presentations from the September and October meetings available on the chapter website.

Joel Funkhouser is intending to set up a membership promotion day and will announce the new members during today's meeting. Joel has received a list of potential new members from Trane's contact list which was sent to him by Chris Ahne. Lee Greeson will send Joel a list of people who checked in as a guest at September's meeting.

Tony Demarco reminded everyone that the ASHRAE golf tournament is October 24 at Stone Links. So far only 5 teams have registered. Tony made a request for promotional give away items to include as door prizes at the event.

Mark Ring stated that the deadline for newsletter inputs is October 23.

Chris Ahne adjourned the Board Meeting.

The monthly technical session presented by Gary Wirges of Custom Craft Manufacturing was "Water Conservation for Car Washes". There are three types of car washes: tunnel car wash, roll over and self-service. Water use on a gallon per vehicle basis (GPV) are as follows: self service – 15 GPV, roll over – 70 GPV, tunnel – 85 GPV and driveway (home) – 130 GPV. Three methods of water conservation for car washes are water reclamation, use of low flow spray nozzles and improved maintenance. Water reclamation is a 5 step process which results in water with impurities no larger than 5 to 20 microns. At this time there are only a handful of car washes in Arkansas that use water reclamation, however in costal regions of the US a much higher percentage of car washes use this process.

Announcements:

Chris Ahne stated that the chapter will be keeping track of how many of the members carpool to the monthly meetings. That information will be asked for at check-in. Chris also announced that the November meeting will be held at Next Level Events at the Train Station on November 5.

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Joel Funkhouser introduced this month's new ASHRAE members.

Tony Demarco talked about the fall golf tournament. The event will be on October 24 at Stone Links.

Tom Hanlon announced the chapter's intent to participate in a Habitat for Humanity project in the spring.

The feature program speakers were Dennis Schnell of SPX Cooling Technologies and Dain Matthey of Woodbury-Beach Company on the topic of "Cooling Tower Water Conservation and Energy Efficiency". Buildings account for 39% of the total energy use in the US and 70% of all electrical consumption in the US. Using water cooled HVAC equipment is way to save energy. Water cooled equipment has a 1.5 to 3 times greater COP than that of air cooled equipment. Water cooled equipment provides a 30% to 50% potential energy savings over that of air cooled equipment. Water conservation methods for cooling towers include use of gray water and condensate harvesting. Gray water use requires either chemical or mechanical treatment prior to being introduced to the tower. Condensate harvesting, however, can be piped directly to the tower. The condensate offers the advantages of a relatively pure source of water, excellent operation in hot, humid areas and low cost.

Meeting adjourned.

ASHRAE Returns to Chicago for Winter Conference and AHR EXPO

Chicago, with one of the most recognizable skylines in the United States, has long-standing status as a livable urban center. That the city has stood the test of time makes it the perfect backdrop for this year's ASHRAE Winter Conference theme: *Sustainable Urban Design: Engineering Tomorrow...Today*.

The Palmer House Hilton will once again host ASHRAE January 24 – 28, with the ASHRAE co-sponsored AHR Expo taking place Jan. 26-28 at McCormick Place. The conference promises to be a great way to kick off the new year, with opportunities to interact with colleagues, learn technical information, and hear Keynote Speaker Chris Luebke of Arup speak on sustainability and thoughtful design and Technical Plenary speaker Adrian Bejan, Ph.D., explain technical evolution through "constructal theory" which he says can predict how everything flows through time and space.

The technical program highlights the conference theme and will feature presentations on energy conservation, indoor environmental quality, sustainability efforts and more that will help you earn your PDHs. Seeking to create additional value for Expo and Conference attendees, ASHRAE is launching "Wednesday Welcome," at which all ASHRAE technical program sessions on Jan. 28 take place at McCormick Place. The "Wednesday Welcome" includes 18 hands-on, applications-type programs, held from 9 a.m. to 1:30 p.m., leaving the afternoon open to tour the Expo with more than 1,850 exhibits covering a world of equipment, systems, components and technology for the building industry. Admission to the "Wednesday Welcome" is included with your full ASHRAE Winter Conference registration or you can purchase a ticket for the full day for \$99.

You can also earn PDHs and CEUs at Professional Development Seminars and Short Courses brought to you by the ASHRAE Learning Institute.

Networking opportunities and chances to see Chicago are plentiful at the ASHRAE Winter Conference. Meet with old friends at the Welcome Party, Presidents Luncheon and Member's Night Out. Technical tours of the city take you to the Intercontinental Hotel and The Art Institute of Chicago and you can see mansions and temples of the city, or take a cooking class on one of the general tours.

For complete, updated information and to register for the ASHRAE Winter Conference, go online to www.ashrae.org/chicago. Visit www.ahrexpo.com to learn more about the AHR EXPO.