



The Razorback Report

www.arkansasashrae.org

Volume XXI, Issue 7, March 2010

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

MARCH MEETING

Central Arkansas

Date: Wednesday, March 3

Location: Camp Aldersgate

Cost: \$15 / Each Person

Schedule:

10:30am Board Meeting

11:30am Tech Session

11:45am Lunch

12:00-1:00pm ASHRAE Standard 189—
High Performing Buildings

Northwest Arkansas

Date: Thursday, March 4

Location: AQ Chicken, Springdale

Cost: ~\$12 / Each Person

Schedule:

11:30am Lunch

12:00-1:00pm ASHRAE Standard 189—
High Performing Buildings

INSIDE THIS ISSUE

Chapter Meeting Calendar:	Page 2
Meeting Minutes:	Page 3
Committee Reports:	Page 4,5
Society News:	Page 6
Officers & Committee Chairs:	Page 7

THE PRESIDENT'S MESSAGE

By Chris Ahne



Greetings fellow ASHRAE members. By receiving the newsletter, you know that the March chapter meeting will be here next week. We only have two more meetings left before our summer break. We have two good programs lined up and a couple of continuing education opportunities left as well. I'm really encouraged by our continuing great attendance at the chapter meetings. Be sure to invite a guest to attend the program this month on ASHRAE's new sustainability standard.

Another area where we're getting good attendance is the YEA Fluids Seminars. We'll be making an announcement about another YEA paintball event in March. If you went to the last one and had fun, please invite a couple of people (preferably someone that you want to shoot at) to join us. They don't have to be "young" to participate because I and others won't discriminate who gets shot.

In order to continue the success of our chapter, one of the most important things that our chapter leadership can do to prepare for their upcoming service as an officer or committee chair is to attend the Chapters Regional Conference (CRC). It will

cost approximately \$800 for travel, accommodations, and registration fee to attend the CRC in Monterrey this year. In the past and present, we've had committee chairs and chapter officers that could have used assistance paying these costs and chose not to attend the CRC. Some positions only get their travel to CRC reimbursed by either the region or society. With only a portion of their costs able to be reimbursed, some can question the necessity of their attendance at CRC if they are required to pay anywhere from \$400-\$800 out of pocket. Because we encourage our chapter leadership to go for the valuable training that they will receive, our chapter is considering paying for some of the expenses incurred. The precedence has already been set by the Dallas and Austin chapters that these chapters help pay for CRC related expenses. To make this budget neutral, a plan has been suggested to raise the cost of central meeting meals to \$20 in lieu of the current rate of \$15. While we believe that our chapter is getting great value for having excellent programs at a cost of \$15 per person, we also see tremendous value in having the future leadership adequately trained to lead. We have explored other alternatives and this seems to be the best plan. Our goal would be to implement this starting next fall. If you have any questions or comments about this, please let me know.

At the President Elect training in Dallas, the guest lecturer who presented on the topic of leadership challenged us to develop a "vision" for our chapter leadership to implement and be the guide by which our goals are set. I came up with the following and would appreciate your feedback: "Provide chapter members with exceptional value in community and education."

MONTH	MEETING TOPIC	SPEAKER	SECTION	DATE	LOCATION	MEETING DESIGNATION
SEPT	Shared Savings/ Performance Contracting	Tim Staley Com- fort Systems USA Energy Services	Central	09/02/09	Camp Aldersgate	
			NWA	09/03/09	AQ Chicken	
OCT	Integrated Pro- ject Delivery	Mark Beach CDI Construction Co	Central	10/07/09	Camp Aldersgate	Joint Meeting with AIA
			NWA	10/08/09	AQ Chicken	
NOV	Laboratory Venti- lation	Tony Rossi Greenheck Fan Corporation	Central	11/04/09	Camp Aldersgate	
			NWA	11/05/09	AQ Chicken	
DEC	Tour UAMS West Central Energy Plant	N/A	Central	12/02/09	7th & Palm Streets	Refrigeration
	Refrigeration	Richard Royal Walmart	NWA	12/03/09	AQ Chicken	
JAN	ACT 1494	Ed Ellis AR Dept. of Energy	Central	01/06/10	Camp Aldersgate	Government Affairs / Mem- bership Promo- tion / Joint meeting with CSI
			NWA	01/07/10	AQ Chicken	
FEB	ASHREA Stan- dard 170 Health- care Ventilation	Tony Rousseau Newcomb & Boyd	Central	02/03/10	Camp Aldersgate	
			NWA	02/04/10	AQ Chicken	
MAR	ASHRAE Stan- dard 189 High- Performance Buildings	Lynn Bellenger, President Elect ASHRAE Society	Central	03/03/10	Camp Aldersgate	Sustainability
			NWA	03/04/10	AQ Chicken	
APR	Commissioning for Sustainability	Chris Ladner	Central	04/07/10	Camp Aldersgate	Sustainability
			NWA	04/08/10	AQ Chicken	
MAY	N/A	N/A	Central	05/05/10	TBD	Past Presidents Recognition
			NWA	N/A	N/A	

ARKANSAS CHAPTER MEETING MINUTES

Board Meeting of February 3, 2010

Bill Simpson—Secretary

Officers and Board Members Present

Chris Ahne, President
Steve Keen, President-elect/CTTC
Marc White, Treasurer
Bill Simpson, Secretary
Randy Ragsdale, BOG

Committee Chairs Present

Forrest Moseley, Student Activities Chair
Lee Greeson, Newsletter Editor
Joel Funkhouser, Membership Chair
Terry Jacks, Reception Chair
AD Agalheir, Webmaster

Board Meeting Minutes

President Chris Ahne called the meeting to order at 10:45 a.m.

Chris reminded everyone to update PAOE points on the ASHRAE website and emphasized that it was important to have the points updated before he and Steve attend officer training in Dallas.

Chris also reminded everyone to get or renew their passports for CRC in Monterrey, Mexico in April. He polled the leadership about who was going so he could put together a complete list before the officer training. Chris summarized previous meetings' discussion about the chapter offsetting a significant portion of CRC travel costs for chapter officers and committee chairs by reinstating meeting sponsors and increasing the cost of monthly meetings \$5 per person. Chris intends to present this idea to the membership at next month's chapter meeting.

Chris noted that the nominating committee is working on the slate of officers for next year and will present it to the chapter by next month.

Steve Keen commented that as treasurer last year he only billed members who actually attended the monthly chapter meetings unlike other similar organizations that bill everyone who RSVPs. Bill Simpson remarked that we don't want to discourage people from RSVPing early or just not attending. The general consensus was to not change the current billing policy.

Steve noted that the commissioning webinar will be April 21 and that Trane Arkansas will be hosting it. Steve said that he has two options for one more

continuing ed seminar. They include dedicated outdoor air systems and life cycle cost analysis. Joel Funkhouser and Randy Ragsdale responded that dedicated outdoor air systems had been covered recently but life cycle cost analysis would be timely.

Steve reported that the local industry chapter for commissioning agents requested a joint meeting September 17 with ASHRAE and USGBC. All in attendance agreed that we should advertise the meeting to our membership but keep our scheduled chapter meeting on the first Wednesday of September.

Chris commented that he needed to follow up with the person from Wal-Mart about submitting an application for the refrigeration award.

Steve asked committee chairs to respond to his e-mail inquiring whether they will serve next year.

Marc White presented the Treasurer's Report and noted that he had talked to Chris Call about the auditing committee's report. Bill Simpson moved that the Treasurer's Report be approved and Lee Greeson seconded the motion. The motion passed by acclamation.

Bill pointed out that the January meeting minutes had been published in the newsletter. Steve Keen moved that the minutes be approved as published and Marc White seconded the motion. The motion passed by acclamation.

Randy Ragsdale had nothing to report for the Board of Governor's.

Chris reported that Tony Demarco hopes to have a date set for the spring golf tournament by the end of the week and that he is considering Stone Links because Country Club of Arkansas has been difficult to deal with and Rebsamen raised prices. Christina Lecuyer solicited Chris about participating with the tournament again this year.

Forrest Moseley announced the good news that society had approved UALR as an official student chapter at the winter meeting. Forrest summarized the scholarship candidates as reviewed by the scholarship committee and presented the scholarship committee's recommendations as follows:

Alexis Gillett, ATU, \$1,000; Todd Spain, UA, \$750; Robert Newcomb,

UALR, \$750; Charles Shank, UALR, \$500.

Randy Ragsdale moved that the board approve the committee's recommendations. Marc White seconded and the motion was approved by acclamation. Chris noted that Forrest will present the slate of applicants to the chapter at the meeting.

Forrest also solicited suggestions for E-Week activities. Chris recommended that Forrest set a goal of having a total of six K-12 activities and Bill Simpson recommended that Forrest contact Dr. Helmer about Project Lead the Way.

Chris Ahne asked Joel Funkhouser to work on a chapter roster before CRC. Some discussion ensued about who should have access to the roster and what information would be published.

AD Agalheir reported that the website will be updated this week.

Lee Greeson set the newsletter deadline at February 19.

Chris adjourned the board meeting at 11:28.

Tech Session and Program Minutes

President Chris Ahne introduced Mark Kenneday, UAMS Physical Plant Administrator, to speak about facilities engineering.

Mark explained that Arkansas Association of Healthcare Engineers (AAHE) is a branch of American Society of Healthcare Engineers (ASHE). ASHE has 10 regions and Arkansas is in Region VII with Louisiana, New Mexico, Oklahoma and Texas. Mark is the Region VII representative.

Mark explained that one of the most significant challenges in facilities engineering is that the facilities and operation and maintenance departments often don't get along. ASHE is trying to resolve this conflict. Mark suggested that one solution is through commissioning.

Mark defined the 'VE' process as 'Value Eradication'. He also emphasized the need for continuous commissioning with the operation and maintenance team throughout the life of the building. Mark pointed out that the relationships design teams (in particu-

(Continued on page 5)

MEMBERSHIP ADVANCEMENT

Chris Ahne—Chapter President

After reviewing a list of our current chapter members it was noted that there are over 50 potential chapter Associate Members that can go through the process of advancement to Member. As a Member, your title would reflect your years of experience and you would be able to vote on chapter initiatives and be a voting member of regional and society level positions.

Society requirements for this membership grade are 12 years of experience. Each year of college education counts as 1.5 years of experience. Your professional engineer license also counts as experience on top of the number of years you've worked to gain your license. If you aren't a PE and you didn't go to college, you only need to have worked in our industry for 12 years and ASHRAE will recognize you with a grade of Member.

Membership dues for Associate member and Member are the same. If you go through the process of membership advancement, please also take the time to complete your biographical record (BIO) on ASHRAE's website. Access to your BIO can be found on the ASHRAE's homepage.

HONORS AND AWARDS

One reason to update your BIO on ASHRAE's website is to be recognized for your past contribution of time serving our community. ASHRAE recognizes member involvement at the chapter level with Chapter Service Awards and at the regional level the Regional Award of Merit is given. Additional awards are given for many other areas of service to ASHRAE. It is typically up to the Honors & Awards committee at the chapter level to recommend an individual for a particular award and the CRC delegate makes the nomination at the Chapters Regional Conference. You may have enough ASHRAE service to qualify for an award but if your BIO is not updated, you may have been undeservingly overlooked. Please make sure your BIO is updated so we can to recognize you for your service. Below are some of our chapter members that have received recognition from the Society and the chapter.

Reading Engineer Nominated as ASHRAE New Face of Engineering

Scott West is one of the 23 nominees received by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) for the New Faces of Engineering recognition program.

The program, part of National Engineers Week (NEW) and co-sponsored by ASHRAE, promotes the accomplishments of young engineers by highlighting their engineering contributions and the resulting impact on public welfare. The program targets those age 30 and younger. The top nominee from each

engineering society represented on the NEW committee will appear in a full-page ad in *USA Today* during National Engineers Week, Feb. 14-20, 2010.

West is a mechanical engineer, Jacobs Engineering, Reading, England. He holds a Bachelor of Science in Mechanical Engineering and a Master of Business Administration-Finance, University of Arkansas-Fayetteville.

West currently is on transfer for two years from the Jacobs office in Forth Worth, Texas and joined the Jacobs MEP team in Reading, England. He has been instrumental in the development of both sustainable and carbon neutral developments on numerous projects. West's refreshing enthusiasm for engineering has been welcomed by both his colleagues within Jacobs and external clients.

During his tenure, West has developed sustainability strategies for two of the largest airports in England. Each of these is estimated to have a contract value in the region of \$150 million. The strategies, which involve bio-mass and gas-fired combined heat and power plants, are estimated to reduce the total energy cost of one of the airports and the energy cost of three terminal buildings for the other airport by 30 percent. The schemes have been well received by the clients as being both groundbreaking for developments of this type and viable.

West also has experience with whole building energy simulation for LEED projects and is currently the principal LEED consultant on the 500,000-square-foot King Abdulaziz Centre for Knowledge and Culture in Dhahran, Saudi Arabia.

E.K. Campbell Award Nominee

We are proud to announce that Arkansas's own **Dr. Wayne Helmer** from Arkansas Tech University (ATU) has been nominated for the E.K. Campbell Award. This is a society level award that is given to someone who is or has been a full time educator in recognition of outstanding service and achievement in teaching and/or research in subjects relating to the industry and professions represented by ASHRAE.

Some of Dr. Helmer's achievements/services would include: Being a dedicated professor at ATU, an ASHRAE student chapter sponsor for ATU, and being ATU's Affiliate Director for Project Lead the Way (www.pltw.org).

Arkansas ASHRAE Student Scholarships

At last month's meeting the board members and Chapter members approved the scholarship committee's recommendation for scholarships to be awarded for the spring of 2010. This year we had a total of \$3,000 to be distributed amongst scholarship winners. At March's Chapter meeting, the following students will be recognized for their accomplishments and will receive their scholarships:

Alexis Gillett from Arkansas Tech University—\$1,000

Todd Spain from the University of Arkansas at Fayetteville—\$750

Robert Newcomb from the University of Arkansas at Little Rock—\$750

Charles Shank from the University of Arkansas at Little Rock—\$500

February Meeting Minutes

(Continued from page 3)

lar the engineers) have with an owner's facilities department need to have the same continuity on the operation and maintenance side.

Mark concluded by thanking the audience and offering to answer questions.

Chris recognized AAHE and students from ATU in attendance. Chris also requested that members get their memberships updated for the upcoming chapter roster.

Chris recognized Forrest Moseley for the hard work Forrest did in signing up UALR as an official chapter. Forrest presented scholarship applicants and recommendations from the scholarship committee as approved in the board meeting. A motion was made, seconded and approved by acclamation for the chapter to approve the scholarships as recommended.

Chris plugged CRC and encouraged any who were interested in the chapter and region's activities to attend. He also offered that motions could be made at CRC for changing society standards and policies.

Chris introduced the program speaker, Chris Rousseau, from Newcomb Boyd Engineers in Atlanta to present ASHRAE Standard 170.

Chris Rousseau began by introducing ASHRAE Standard 170 as the healthcare ventilation standard. Chris noted that it is the first joint standard between ANSI, ASHRAE and ASHE.

The roots of the standard are in ASHRAE 62.1 and the first SPC meeting was in 2002. The standard was issued in 2008 and has recently been given continuous maintenance status. In 2010, Standard 170 was incorporated in the Guidelines for Design and Construction of Healthcare Facilities. The AIA ventilation guidelines were incorporated in Standard 170 as well.

Chris discussed the scope of each chapter. Chapter 1 defines the purpose—"to define ventilation system design..." Chapter 2 states the scope of

applicability which includes hospitals, nursing facilities and outpatient facilities. Chapter 3 includes several definitions. In particular, chapter 3 defines class A, B and C surgeries. Chapter 4 covers compliance and criteria ranges (i.e. operating conditions). Chapter 5 outlines planning requirements. For example, per chapter 5, the owner must provide a detailed program including temperature, humidity and pressure control requirements

Chapter 6 covers systems and equipment. Some of the particulars

space ventilation and references ASHRAE 62. It constrains specific times of heat. For example, it outlaws baseboard heating in surgery rooms. This section covers dedicated exhaust requirements and discusses air distribution as well as constant versus variable air volume applications.

Planning, construction and system start up is covered in chapter 8. Chris highlighted a few requirements. Maintenance staff must be able to access mechanical rooms and equipment without intrusion into surgery and critical care areas. Also, cooling tower discharge should be directed vertically with drift directed away from outside air intakes. This section also requires involvement from the owner such that they provide an infection control risk assessment (ICRA) and conduct operator training. Chris also pointed out that ductwork must be cleaned prior to use.

Chapter 9 is the normative reference that contains other standards and guidelines for reference only. Lastly, chapter 10 includes the informative annex with recommendations for pressure testing, monthly inspection and cleaning of unitary equipment serving patient rooms and cleaning of finned tube, induction and convection heating and cooling devices.

Chris summed up his presentation by outlining changes in progress and future changes/current issues. He noted that addenda a and b have been published, c has been rescinded and d has been forwarded to the board of directors for final approval. Future changes and current issues include lower percent relative humidity research, displacement ventilation, unitary equipment filtration, and coordination with remaining 2010 guideline items.

Chris opened the floor for questions. A question was asked about whether the general construction guidelines from AIA are still in effect. Chris responded that yes, standard 170 just addresses HVAC.

The meeting was adjourned by Chris Ahne. ☺

STUDENT ACTIVITIES

Forrest Moseley—Student Activities Chair

Congratulations to the University of Arkansas at Little Rock for officially becoming a new ASHRAE Student Branch! We are thrilled to have the opportunity to work with this school and their students and look forward to a long relationship in promoting the study of HVAC&R. The guidance and support that the Arkansas Chapter and our professional members can provide will be very beneficial to UALR and their students.

MEMBERSHIP REPORT

Joel Funkhouser—Membership Chair

I'd like to congratulate our new student branch at the University of Arkansas at Little Rock and welcome our new student members: Paul Beck, Ben Smith, Michael Sims, Dwayne Cornelius, Joseph Sipes, Charles Shank, Jeremy Little, John Suit, Andrew Bedinghaus, Gashayeneh Gebremariam, Terry Reid, Fabian Wilson, Jeffery Simmons, John White, Trey Newcomb, Ben Diggins, Juan Martinez, Erica Jones, Hangkun Ling, and Todd Spain. Our student members represent the next generation of HVAC&R engineers, and we applaud these young men and women for their interest in the field of heating, ventilation, air conditioning and refrigeration.

We have a strong chapter, and additional members will help to make us even stronger. ASHRAE offers invaluable resources to design engineers, contractors, and owners alike, 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.

include the following requirements: reserve capacity for cooling sources; air handlers must comply with ASHRAE 62; minimum filter efficiencies per Table 6-1; emergency power provisions for ventilation and maintenance of differential pressure in all rooms; PE rooms and class B&C operating rooms.

Chapter 7 addresses the specifics of

STANDARD 189.1 TO PROVIDE A STRONG FOUNDATION FOR HIGH-PERFORMANCE GREEN BUILDINGS

ATLANTA—A new standard for the design of high-performance green buildings is set to revolutionize the building industry. Published by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), in conjunction with the Illuminating Engineering Society of North America (IES) and the U.S. Green Building Council (USGBC), Standard 189.1, *Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings*, is the first code-intended commercial green building standard in the United States.

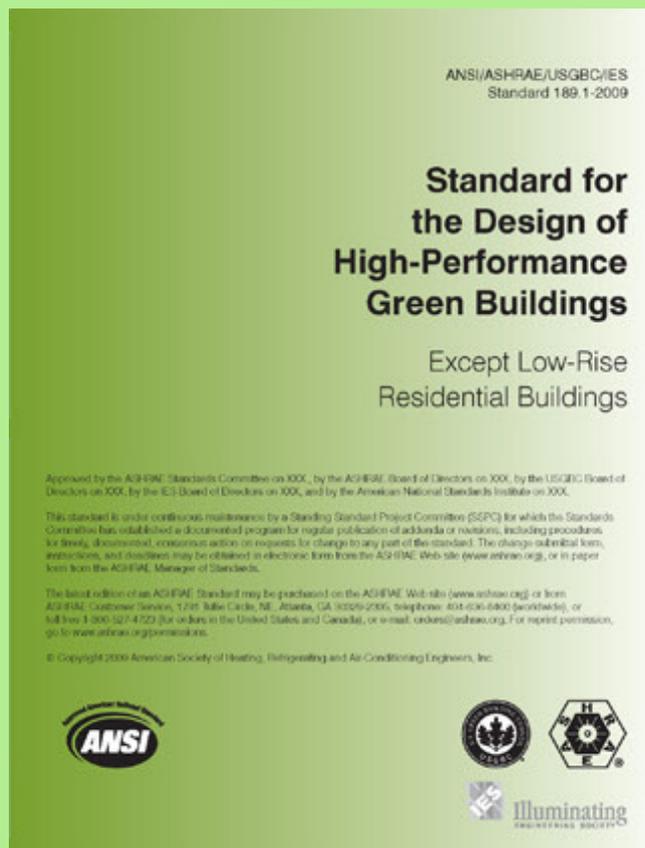
The standard, published Friday, provides a long-needed green building foundation for those who strive to design, build and operate green buildings. From site location to energy use to recycling, this standard will set the foundation for green buildings through its adoption into local codes. It covers key topic areas similar to green building rating systems: site sustainability, water use efficiency, energy efficiency, indoor environmental quality and the building's impact on the atmosphere, materials and resources. For complete information on the standard, including a readable copy, visit www.ashrae.org/greenstandard.

The energy efficiency goal of Standard 189.1 is to provide significant energy reduction over that in ANSI/ASHRAE/IESNA Standard 90.1-2007. It offers a broader scope than Standard 90.1 and is intended to provide minimum requirements for the siting, design and construction of high performance, green buildings.

"The far-reaching influence of the built environment necessitates action to reduce its impact," Gordon Holness, ASHRAE president, said. "Provisions in the standard can reduce negative environmental impacts through high-performance building design, construction and operations practices. Ultimately, the aim is not just energy efficiency but a balance of environmental responsibility, resource efficiency, occupant comfort and well being and community sensitivity, all while supporting the goal of sustainable development."

"IES is pleased to be a cosponsor of this standard that will have a significant impact on requirements for high-performance green buildings and the building industry as a whole," Rita Harrold, director of technology for IES, said. "We congratulate the Project Committee for the tremendous effort and dedication of its members in the fast track development of a consensus standard. We look forward to continuing the partnership with ASHRAE and USGBC as the standard continues to evolve through future continuous maintenance proposals."

"Greening the building code is fundamental to the U.S.



Green Building Council's goal of market transformation and is also a critical factor in how the building industry is working to mitigate climate change," said Brendan Owens, VP, Technical Development, U.S. Green Building Council. "We're extremely excited to see our collective efforts over the past three years come to fruition in the form of this important standard."

Standard 189.1 has been written by experts representing all areas of the building industry, including engineers, lighting designers, sustainability experts, building owners, designers, architects, code and compliance officials, utilities, materials experts and equipment manufacturers. The technical requirements in the standard were also supported by input from the building industry during the public review process.

To order, contact ASHRAE Customer Service at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), fax 404-321-5478, or visit www.ashrae.org/bookstore.

The cost of Standard 189.1 is \$119 (\$99, ASHRAE members).

FUTURE ASHRAE MEETINGS:

**2010 Region VIII CRC
April 22-24, 2010
Monterrey, Mexico**

**2010 ASHRAE Annual Conference
June 26-30, 2010
Albuquerque, NM**

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