



THE RAZORBACK REPORT

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

www.arkansasashrae.org

Volume XIV, Issue IV, December 2002

The President's Message

By Randy Moore, P.E.

The Arkansas Chapter of ASHRAE members continue to invest time and effort in activities which meet the challenge for ASHRAE to help realize the dream of **Building a Better World** presented this year by Society President Donald G. Colliver, Ph.D., P.E. Energy, environment, education, and empowerment are the cornerstones of our President's challenge. At our November Meeting, we honored eight "Life" members with membership plaques for the years committed to ASHRAE Membership. Our membership promotion committee is to be congratulated for their efforts to honor these members. Also, thanks to our Northwest Section Chair - Marshall Moody for organizing our November program on application of desiccant dehumidification technology. The technical session this month will introduce oil-free refrigerant compressor technology to our Chapter Members, and we look forward to the 21st Century Chilled Water System program which will be presented by Mr. Ed Tinsley, P.E. - Arkansas Chapter Past President.

Our TEGA committee is very busy planning educational sessions for our Chapter Members and other colleagues in the HVAC industry. The TEGA committee is planning seminars for HVAC "System Effect", ASHRAE Standard 90.1, and Laboratory Design. We look forward to realizing the benefits of the hard work of Tom Hanlon, Steve Titus, and the members of the TEGA committee.

Recently, I have had discussions with several of our Chapter Members about satisfying the requirements of ASHRAE Standard 62 and meeting the budget constraints that are typical of construction of public schools within Arkansas. Issues such as moisture within buildings, system designs for introduction of outside air, capital equipment costs, outside air conditioning equipment maintenance/service, and operational costs are typical topics of these discussions. Local public schools are upgrading facilities and implementing some of the outside air conditioning systems presented at programs for our Chapter this year while others may use alternative systems or designs. The purpose for sharing these discussions with our membership is to explore the interest in organizing an "ad hoc" committee to develop a format for a panel discussion on the topic of "Applying ASHRAE Standard 62 to Public Schools in Arkansas". This committee will identify potential panel members such as local designers, owners, contractors, and suppliers; develop the agenda for the panel discussion meeting; establish a time and place for the panel discussion, and identify a moderator for the panel discussion. Please contact me with any comments, questions, or level of interest for participation in this committee. Hopefully, our efforts will help better define the "standard of care" for introducing fresh air in accordance with our building codes, ASHRAE Standard 62, and typical budgets for construction of public schools within Arkansas.

As you can see by the activity of our Chapter Officers, Board of Governors, Committees, and Members; the Arkansas Chapter is meeting the Challenge of our Society President. Again, thanks to all the members, guests, and students for participation in ASHRAE. Look inside your newsletter for more details.

December Meetings

Central Arkansas

Date: Wednesday, December 4th
Location: Little Rock Club, Region's Building
Cost: \$18.00 / person
Schedule:
10:30 AM Board Meeting
11:15 AM Tech Session - Oil Free Refrigerant Compressors
11:45 AM Lunch Buffet
12:15 - Program - "Chilled Water Systems For The 21st Century"
1:00 PM by Ed Tinsley, P.E.

Meeting Sponsor: *Airetech Corporation*

Northwest Arkansas

Date: Thursday, December 5th
Location: Goodson's Resturant
Fort Smith, AR
Schedule:
5:30 PM Social
6:00 PM ASHRAE Business / Dinner
6:30 PM Program - "Chilled Water Systems For The 21st Century"
by Ed Tinsley, P.E.

Meeting Sponsor: *Airetech Corporation*

Northwest Corner

By Marshall Moody

Thank you, to all those who attended the November meeting. It was a record turnout for this year with 44 in attendance. A special thanks to Dr. Darrin Nutter and all the students that attended the meeting as well as everyone from the Benchmark Group who helped with the big turnout. The support from the University and from Benchmark is greatly appreciated.

Our next meeting will be held on Thursday, December 5, 2002 at Goodson's in Fort Smith. The Chapter's own Ed Tinsley will be presenting "Chilled Water for the 21st Century." Please come out to support Ed and the Northwest Section.

The meeting will begin at 5:30 PM. Hope you can make it for another evening of good food, fellowship, and important information.

My best wishes to each of you and your families during this holiday season as we celebrate The Savior's birth!

November Board of Governors, Officers & Committee Chairmen Meeting Minutes

By John Carter, Chapter Secretary

Call to Order: President Randy Moore called to board meeting to order at 10:32 AM. Attendees included: Randy Moore, Rick Sellers, John Carter, Chance Hollingsworth, Eddie Finley, Steve Titus, Chris Shaw, Russell Black, John Hodoway, James McKinnie, Wade Wetzler, B. Bolan, and James Dayer.

Old Business: Secretary Carter presented the November meeting minutes and the board accepted the minutes as written. Secretary Carter then reviewed last month's action item list. Treasurer Hollingsworth changed the account status with Region's Bank; however, the chapter must keep a minimum of \$2000 in the account to avoid service charges. Treasurer Hollingsworth also paid an outstanding invoice for May meeting that was held at Cajun's Wharf. Treasurer Hollingsworth made a second payment to Chapter's website provider after the first payment was never received. Treasurer Hollingsworth received feedback from Board members on the proposed 02'-03' budget and incorporated comments that were applicable. The approval of 02-03 budget was tabled until December meeting.

New Business: President Moore proposed a motion to the board as follows: Within the framework of society rules, a motion is made to add business card advertisements to the website at \$150 per ad for the purpose of funding the chapter's donation to ASHRAE Research; Brett Bolan provided a 2nd, and the motion passed. Treasurer Hollingsworth gave final outstanding CRC payable check of \$930.00 to 02' CRC Treasurer Wetzler. Vice President Sellers (Programs) announced that the December meeting location and time. President Moore announced that TEGA award deadline submissions are November 18th. Treasurer Chance Hollingsworth presented the monthly treasurer report and the 02-03' budget. Approval of the budget was tabled until December Board meeting. Membership Chair Russell Black announced that the Arkansas chapter has seven 50-year life members.

Action Items:

- 1) President Moore will provide update of chapter members to-date paid status by December meeting.
- 2) Chris Shaw will verify life member status of Albert Miller.
- 3) Social chair Call will forward fundraising support survey to Chapter members.
- 4) President Moore will forward the invoice for the President's pin to Treas-

urer Hollingsworth.

5) All board members are to provide full circle contribution to ASHRAE Research by December Board Meeting.

6) Newsletter Chair Wetzler will forward Chapter physical mailing list to Chris Shaw who will call recipients to determine if they would prefer to receive the newsletter electronically.

7) Chance will invoice past meeting sponsors.

8) Chapter members are to forward ASHRAE TEGA award submissions to TEGA Chair by November 18, 2002.

November Arkansas ASHRAE Chapter Meeting Minutes

By John Carter, Chapter Secretary

Technical Session: The technical session began at 11:19 am. Mark Nunnely presented an overview of psychrometrics by describing the differences between relative and absolute conditions and recommended the use of absolute conditions to size equipment systems. After reviewing the principles of psychrometrics, he reviewed a mixed air application representing the calculations involved with determining mixed air temperature, sensible and latent loads, and vapor characteristics.

Call to Order: President Randy Moore called the chapter meeting to order at 11:45 AM with 42 people in attendance. President Moore opened the meeting by welcoming chapter members and Mr. Nunnely with a special welcome to ASHRAE life members. The Chapter attendees then adjourned for lunch. At 12:10, following lunch, Randy Moore introduced Chris Shaw and Russell Black who provided special recognition to the following new life members: Emanuel Bates, Paul Briscoe, Huey Gibbs, Bill Lowry, Ovensal Page, Ken Sudduth, Jake Voegelé. Randy Moore acknowledged their contribution and thanked them for their contribution to ASHRAE. Randy Moore introduced Vice President Rick Sellers who announced that next meeting would be located at the Little Rock Country Club. Randy Moore then introduced Marshall Moody who introduced Chris Nunnely as today's speaker.

Program: Mr. Nunnely presented "Desiccant Dehumidification Technology". Mr. Nunnely addressed the differences between active and passive desiccant technology that can be applied a number of ways: examples include dehumidifying outside air only, return air only, or combination systems. There are a number of good applications for desiccant dehumidification technology including: operating rooms, schools, ice rinks, museum, and

treatment plants. Mr. Nunnely also expanded the purpose of desiccant technology that is to control not just temperature but also moisture resulting in good indoor air quality. Mr. Nunnely then presented a checklist of reasons for applying desiccant technology. That list includes: utility costs, ductwork provisions, relative humidity, space temperature, dew point, and the space sensible heat ratio. In addition, other benefits of desiccants include: reduced cooling equipment capacity; better part load humidity control; and actual dew point control of critical process/ industrial appliances. Mr. Nunnely concluded the presentation by reiterating the importance of considering humidity control and not just temperature control.

Adjournment: Randy Moore reminded the attendees of next meeting. The meeting was adjourned.

November Northwest Arkansas Section ASHRAE Meeting Minutes

By John E. Symonds, PE

The November 7, 2002 Northwest Arkansas ASHRAE Section meeting was held at Springdale, Arkansas A.Q. Chicken House Restaurant. Approximately 45 members and guests, which included University of Arkansas students, were in attendance.

Mr. Marshall Moody called the meeting to order at 6:00 p.m. and introduced Mr. Mark Nunnely, PE, President of Nunnely and Associates, Inc. who provided the technical session on psychrometrics.

Mr. Mark Nunnely presented the main program session on desiccant dehumidification technology. Mark provided information on how desiccants work, desiccant applications, and liquid versus solid desiccants. Mark's definition of a desiccant was material that has an affinity for moisture. Mark emphasized that good space condition design should consider not only peak temperatures but peak dew points. Mark discussed the "mildew square" which consisted of spores, food, temperature and moisture and indicated that moisture was the only item that was controllable from a design standpoint. Some commercial application for desiccant systems are hospital operating rooms, ice rinks, supermarkets, low temperature storage and archival storage. Marshall Moody reminded the members of the December 5th meeting to be held in Fort Smith and the topic would be Chiller Design For The 21st Century presented by Ed Tinsley.

With no further business, the meeting was adjourned at 8:10 p.m.



TEGA News

By Tom Hanlon

Several items to mention this month.

Our next educational co-operative event will be a three hour session on Wednesday December 11th @ 6:30 PM at the Northwest Technical Institute in Springdale. Subject will be "System Effect" in HVAC systems. Our presenter is Mr. Ron Spencer (Airetech - Tulsa). Ron is a long time ASHRAE regular in Northeast Oklahoma and has done numerous seminars on fan design and performance. Two years ago Ron did one of our technical sessions at the NEBB-ASHRAE seminar on the same subject. This should be a great session and is highly recommended for contractors, designers and advanced service providers.

Contact and Registrar for the event is Mr. Eric Stiles @ the Institute 479-751-8824 ext132. Also check out the flyer on the chapter web site. Attendance will be limited to 30, so sign up early. Fee will be \$35.00 payable to Arkansas ASHRAE.

Steve Titus continues to work on a joint presentation with the department of energy on ASHRAE standard 90.1. This effort is quite involved, will probably involve not only our group but also the Architectural community. Sessions are being planned for the Spring both in Central Arkansas and the Northwest. Steve will give us an update at the December meeting.

We're still working on the lab design session with the folks from Ark Department of Health and the CDC. More later.

Technology awards. Scout around your office for those completed projects and let's get some award applications working. Again we have lots of categories and we want to continue the momentum of last year's two regional award winners.

Thanks



December Meeting Summary

by: Rick Sellers, 2002-2003 Vice President/Program Chairman

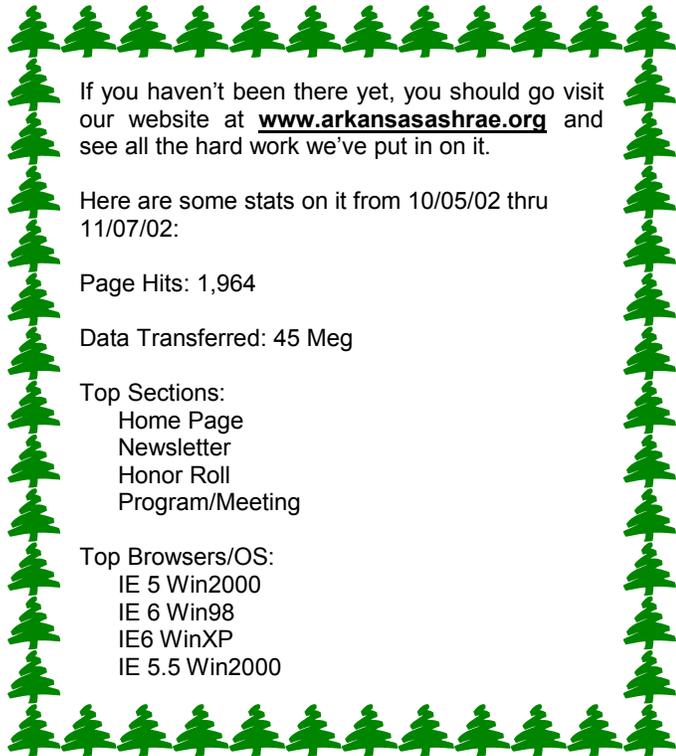
Technical Session

This month's Tech Session will be presented by Arkansas Chapter Members Andy Lyons and John Oliver. They will introduce oil free refrigerant compressor technology. Magnetic bearings are the key component of the oil free refrigerant compressor. Typical applications are 60 to 90 tons of refrigeration and part load performance of variable speed centrifugal compressors are in the range of .35 to .40 kw/ton. There will be a sample compressor at the technical session for members to "kick the tires" of the leading edge technology of frictionless compressor for application to middle market air conditioning.

Program

This month's Program will be presented by Arkansas Chapter Member Ed Tinsley. The title of the program is "Chilled Water Systems For The 21st Century". The program will present several alternatives for chilled and condenser water system design and highlight the advantages and disadvantages of each. Some of the alternatives presented will be variable primary chilled water, variable volume condenser water, low flow/high delta T chilled water, and series-series chilled-condenser water systems. The program will also discuss interoperable control systems, district cooling systems, and selecting high performance equipment.





If you haven't been there yet, you should go visit our website at www.arkansasashrae.org and see all the hard work we've put in on it.

Here are some stats on it from 10/05/02 thru 11/07/02:

Page Hits: 1,964

Data Transferred: 45 Meg

Top Sections:

- Home Page
- Newsletter
- Honor Roll
- Program/Meeting

Top Browsers/OS:

- IE 5 Win2000
- IE 6 Win98
- IE6 WinXP
- IE 5.5 Win2000

2002-2003 Chapter Officers

<u>President</u>	Randy Moore	501-280-0404	fax: 280-9200
<u>Vice-Pres.</u>	Rick Sellers	501-374-3731	fax: 374-1802
<u>Secretary</u>	John Carter	501-666-6776	fax: 663-8888
<u>Treasurer</u>	Chance Hollingsworth	501-374-5420	fax: 370-9298

Board of Governors

Eddie Finley	501-374-5420
Doug Bown	501-227-8181
Steve Titus	501-375-1181
Mike McClellan (Delegate)	501-661-0621
Tracy Hayes (Alternate)	501-280-0404

Committee Chairs

Directory	Russell Black	501-327-2409
Membership	Chris Shaw	501-280-0404
Student Activities	Chris Ahne	501-661-0621
Programs	Rick Sellers	501-374-3731
Historian	Richard Palmer	501-666-7300
Research	John Hodoway	501-372-2900
Honors & Awards	Alan Hope	501-666-6776
TEGA	Tom Hanlon	501-661-0621
Newsletter	Wade Wetzler	501-753-6652
NW Section	Marshall Moody	479-582-8239
Social	Chris Call	501-663-8886
Reception	James Dayer	501-663-8886
Webmaster	Brett Bolan	501-661-0621

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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: _____

For reservations to the Central Arkansas Chapter meeting fax this form by **Friday, October 29th** to **501-374-1802 Attn: Rick Sellers**

For reservations to the Northwest Arkansas Chapter meeting fax this form by **Monday, December 2nd** to **479-582-4747 Attn: Marshall Moody**

ROUTING

MEMBER NAME (PLEASE PRINT)	CENTRAL Dec 4 th	NW ARK Dec 5 th	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.