



The Texas Norther

Monthly Newsletter of the Dallas Chapter, Region VIII

Volume 54, No. 3

www.dallas-ashrae.org

November 2004

Chapter Meeting

Wednesday, November 10th

7:15 Cont. Breakfast
7:45 Seminar
12:00 Lunch Meeting
1:00 Adjourn

Cost: \$40--Members/Guests with reservations by noon Monday 8th: \$15 for lunch session only.

Where: Johnson Supply
1405 Valwood Pkwy.
Carrollton, TX 75006

Topic: Humidity control with rooftop unit systems

Presenter: Trane, Carrier, York, AAON, and Lennox.

Reservations: 972/780-6019, Leave both your name (spell last name) & Company name, include the names of your guests as well.

PLEASE REFER TO THE RESERVATION POLICY ON THE BACK PAGE OF THIS NEWSLETTER

Letters to the Editor should be sent via e-mail to
jeff.farley@tdindustries.com

ASHRAE National Customer Service:
800/5ASHRAE

Message From the President

Hello fellow Dallas ASHRAE members!

At our last meeting on October 13, Larry Degelman, P.E. gave an excellent presentation of ASHRAE 90.1 and IECC Compliance. He was able to clear up how both standards can be used together to meet the Texas Senate Bill 5 Requirements. Earlier, at the Tech Session, Jim Asgewan of Titus presented the Basics of Air Device Selection and Performance.

On January 27, 2005, a Thursday evening, we will have a joint meeting with the Ft. Worth ASHRAE Chapter. Ron Vallort, the President of ASHRAE Society, will be the speaker. It will be held at the Diamond Club at Ameriquest Field in Arlington. This will be a special meeting for the Dallas Chapter, since we will also have our normal monthly meetings on January 12 and February 10. This will be the monthly meeting for the Ft. Worth Chapter. We hope to see you there!

We have a new format for the luncheon meetings this year, based on a buffet style. This seems to be working well and is also saving time.

The ASHRAE Dallas Chapter BOG has appointed Sam Toub as Chairman for the 2007 ASHRAE Winter Meeting Host Committee. There's a long list of activities he needs to accomplish for Society. Sam will soon put together a committee, made up of Dallas ASHRAE members who are not currently an officer or committee chairman. Sam may ask you to assist by serving on this committee. This is a great way to get to know other ASHRAE members, while serving the chapter and society.

The Texas State Board of Registration for Professional Engineers requires Professional Development Hours (PDHs) to renew registration. These PDHs can be earned by attending the Dallas Chapter ASHRAE Technical Sessions and Main Meetings. These certificates are available at the meetings. This can help us introduce our co-workers and other interested engineers to our Dallas Chapter ASHRAE Meetings and Tech Sessions, while fulfilling their registration requirements.

We look forward to seeing you all at our next Dallas Chapter ASHRAE meeting and seminar on Rooftop Unit Humidity Control Systems on November 10.

-Paul S. Oxenreider, P.E.



CHAPTER Luncheon Presentation Summary- October 13, 2004

Our second Chapter Meeting of the year was the highest attendance turn out this year at 85 people! Our main speaker was Larry Degelman, P.E. with the Energy Systems Laboratory at Texas A&M University (TAMU). For those who were not able to come, Larry discussed "ASHRAE 90.1/IECC Energy Code Compliance issues in Texas". He gave a general overview of why the state of Texas adopted the energy code and which counties of the state were deemed non-attainment areas. He then discussed specifically which version of IECC and 90.1 is the current state mandated energy code. These are the IECC 2000 with 2001 supplements and "the most current version" of 90.1-1999. He stated that since 90.1-1999 is under continuous maintenance that it is TAMU's interpretation that all addendum to 90.1-1999 are included in the mandated code.

He then noted that the IECC and 90.1 define geographic climate regions differently and related this to the economizer requirements. He mentioned that 90.1-1999 does not require economizers for the North Texas region, but IECC 2001 does. However there is an exception to the IECC in that if the equipment efficiency is high enough economizers are not required.

He concluded by comparing some of the differences between IECC 2001 and ASHRAE 90.1-1999. The two major points that were made during the presentation were that the Energy Systems Lab at TAMU interprets the State mandated energy codes to:

1. Apply to the entire state, not just non-attainment areas.
2. Allow use of both chapter 7 (ASHRAE 90.1) and chapter 8 of the IECC on the same project such that different disciplines can use different chapters but that a particular discipline can only use one chapter (i.e. mechanical can use chapter 8 and lighting can use chapter 7, but mechanical can not use both chapter 7 and 8).

We look forward to seeing you all at the November Seminar at Johnson Supply Corp. starting at 7:45 A.M. Please refer to the flier on the following page for more details.

- Submitted by Nathan Hart

CHAPTER Technical Session Presentation Summary- October 13, 2004

Our second Tech Session of the year was the second of our 3-part design training series. The topic was "Air Device Selection 101". Our speaker was Jim Aswegan, Technical Training Manager with Titus, Inc. He discussed basic occupant comfort goals and then discussed the air flow patterns that different air devices produce. He discussed sidewall grilles, jet throw slot diffusers, linear or T-bar diffusers, and round and square ceiling diffusers with star, cross and radial patterns. He then discussed how room size and layout effects the air distribution. The summary was as follows:

1. Diffuser selection should be based on throw and room size.
2. Select at both max and in occupied flow rates.
3. Dirt on the ceiling is a good thing.
4. Noisy diffusers are not all bad.
5. Use good design when heating.
6. Poor air distribution yields poor comfort, poor air quality and slow system response.

The next topic in our series will be "Psychometrics 101" in January 2005. This session should build on the great presentations at the September and October meetings. We look forward to seeing you at the January Tech Session beginning at 10:00 a.m.!

- Submitted by Nathan Hart



Dallas Chapter of ASHRAE Presents - "They Report, You Decide"- Humidity Control with Rooftop Unit Systems Seminar

A reputation for low first cost and design ease makes direct-expansion systems the common choice for small commercial cooling applications. But in some of these cases, the DX system simply can't deliver the required humidity control. This ASHRAE meeting allows five manufacturers to report on their designs utilizing hot gas reheat to control space humidity.

when

Wednesday,
November 10, 2004
7:45 a.m. – 1:00 p.m.

Continental Breakfast will be provided starting at 7:15 as well as catered lunch.

where

Johnson Supply
1401 Valwood Pkwy
Carrollton, TX 75006

cost

Full Seminar - \$40.00
Lunch Session Only
\$15.00

Why should you attend this forum?

- Learn what each RTU manufacturer is doing for humidity control design
- Understand how to utilize direct space humidity control in your projects to meet ventilation and code requirements
- Review the different features and benefits of each RTU manufacturer

Each manufacturer will discuss the following topics:

- Current product(s) offered (3 to 25 ton range) that are designed specifically to handle direct space relative humidity control
- Illustrate in schematic form how humidity control is accomplished
- How demand controlled ventilation is handled with their product
- Control input and output requirements and options for their product
- Unit and motor efficiency options for their product

How do you register for this event?

- Registration deadline: November 8, 2004 5:00 P.M.
- By phone: call 972-780-6019 and leave your name, company, and mention if you are attending seminar or lunch only
- On the web: <http://www.dallas-ashrae.org/reservations1.php>
- By fax: Fill out the form at the bottom of this flyer and fax to Nathan Hart at 972-788-0002
- By e-mail: Fill out the attached registration form and e-mail to Brian Broussard at bbroussard@trane.com

**Sponsored by Texas Trane,
York and Johnson Supply
Co.**

Yes! I plan to attend this ASHRAE Meeting
on Humidity Control with Rooftop Unit Systems

Name _____

Fax _____

E-mail _____

Your company _____





Refrigeration Report

Solar-Powered Refrigeration

Last month I mentioned that I would try to follow-up on the progress of a solar-powered, ammonia based refrigerator. I was not able to find any products currently available utilizing this process.

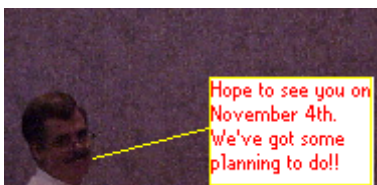
However, I did stumble onto a different product that appears to be more technologically advanced. It is a solar-powered refrigerator that utilizes R-134a refrigerant and is powered by a single 80-watt solar cell. I had read about earlier refrigerators that required six solar cells and a half dozen 12-volt batteries. This appears to be a great improvement.

This refrigerator is the result of work done by NASA's Advanced Refrigerator Technology Team at Johnson Space Center. It uses thermal storage for cooling efficiency, with a direct connection between the vapor compression cooling system and the photo-voltaic module. The thermal storage is accomplished by integrating a phase-change material into a well-insulated refrigerator cabinet. A microprocessor-based control system was developed that permits the direct connection of a PV module to a variable speed, DC compressor. This variable speed feature allows the compressor to better utilize the variable amounts of sunlight available. The refrigerators thermal storage material is said to provide 7 days or reserve cold storage to bridge periods of cloudy weather when sunlight is not available. As a back-up, the unit will also run on 12 or 24 volts DC. This system is now in production under license to NASA. It is currently being marketed globally.

This product would appear to be a real boon to the health of those in the multitude of remote villages around the world.

- Submitted by Tony Zemanek

Reminder for Dallas Chapter Officers



Board Meeting:

Thursday, November 4th

4:30pm - 6:00pm **Place:** LAN Offices 5306 East Mockingbird Lane, Suite 400

Contact Paul Oxenreider for directions



Photo Gallery *(Continued from page 4)*



Members and guests visit prior to the start of the October meeting



Treasurer Mark Meyer prepares for the October Meeting.



Leo Stambaugh, Dallas Chapter Publicity Chair, takes a look around.



Larry Degelman, P.E., talks about ASHRAE 90.1, the IEC, and how they present compliance issues in Texas.

(Continued on page 6)



Photo Gallery *(Continued from page 5)*



The October meeting had the highest attendance so far this year. Love to see a packed house!



Good food and a great program, what a combination.



I don't know Sam. It tastes like ranch to me.



Nathan Hart, President-Elect, strikes a pose with November presenter, Larry Degelman, P.E., from TAMU.

(Continued on page 7)



Photo Gallery *(Continued from page 6)*



Dave Arant talks about what becoming a ASHRAE Life Member means to him.



President Paul Oxenreider presents Dave Arant the ASHRAE Life Member Award.



President Paul Oxenreider presents Paul Martin the ASHRAE Life Member Award.

Photos Courtesy of Paul LeMaire

News You Wish You Did Not Have To Report

Claude C. Nathan, Jr.

Mr. Nathan passed away at the age of 86 on September 29, 2004. He was a graduate of Texas A&M University. He served in the United States Navy during World War II as a Lt. Commander in the Pacific theater, was decorated with the Navy Cross and retired as a full commander. Mr. Nathan was a mechanical engineer who began his career at Lone Star Gas Company. In 1961 he began the Claude Nathan Company, a manufacturers' representative for HVAC equipment. In 1978 he joined with a business associate and merged his company into L&N Sales Company, which remained in business until 1995. Mr. Nathan was a Life Member of ASHRAE and an active member of the Dallas Chapter.

Please remember his family in your thoughts and prayers. A special thanks to Barton B. Wallace, Jr. for providing this information so we may remember those who have had such a significant part in molding our country and industry.



Industry News

ANSI Rejects Final Appeal to Revised Ventilation Rate Procedure

ATLANTA—The American National Standards Institute (ANSI) Appeals Board has rejected a final appeal of an addendum to the American Society of Heating, Refrigerating and Air-Conditioning Engineers' (ASHRAE) ventilation standard. ANSI/ASHRAE Standard 62-2001, Ventilation for Acceptable Indoor Air Quality, sets minimum ventilation rates and other requirements for commercial and institutional buildings.

Addendum 62n was approved for publication at the Society's 2003 Annual Meeting. Six appeals were filed and later denied by ASHRAE. The ANSI Appeals Board's decision upholds a decision made earlier this year by its Board of Standards Review, which voted to deny all appeals made to ANSI, thereby upholding its earlier approval of the addendum. The addendum specifies the determination of design ventilation rate used for application of the ventilation rate procedure. The procedure specifies ventilation rates that can be easily measured for compliance verification and allows designers to determine appropriate rates and reduce the potential for overventilation in some densely occupied spaces, according to David Butler, P.E., committee chair. Furthermore, the standard is now focused on minimum requirements and is written in mandatory, enforceable language.

In recognition of the fact that air pollutants are generated by building occupant activities and by the building contents, the addendum bases ventilation requirements on the number of people a space is expected to hold, as well as the space's floor area, Butler said. The "additivity" procedure is used to calculate minimum outdoor ventilation requirements for a building ventilation system. For example, in an office building, the procedure is used to determine the outdoor air requirement for each space type (offices, conference rooms, corridors, etc.), which are in turn used to determine the amount of outdoor air intake required at the air handler.

To make multiple space ventilation calculations easier for users, a spreadsheet, 62n.VRP.xls, was developed. It can be obtained under the SSPC62.1 directory at <ftp.ashrae.org>. Addendum 62n can be downloaded for free via the "standards addenda index" shortcut on ASHRAE.org.

ASHRAE, founded in 1894, is an international organization of 55,000 persons. Its sole objective is to advance through research, standards writing, publishing and continuing education the arts and sciences of heating, ventilation, air conditioning and refrigeration to serve the evolving needs of the public.

-Courtesy of Jodi Dunlop, ASHRAE Public Relations

Member News

Sam Toub has been appointed as ASHRAE 2007 Winter Meeting Host Committee Chairman.

Awards:

Dallas ASHRAE Chapter 2003-2004 Membership Chair Achievement Award: **Tom Cooksey**

50 Year Member Certificates: **Martin Schlessinger** and **Alan Smith**

Life Members: **Dave Arant, Paul Martin** and **David Pulley**



Dallas Chapter of ASHRAE - 2004-2005 Programs

Month	Topic	Program Summary and Hand-out	Location	Speaker
September 8, 2004	Ammonia vs. Air Cooled DX	Refrigerated Warehouse Design. ASHRAE Books -(1) Recommendations for Chilled Storage of Perishable Produce & (1) Industrial Refrigeration Handbook.	Royal Oaks Country Club	Ken Vantine, P.E.- FES-Southwest
October 13, 2004	High Performance Bldg. Design	Summary of ASHRAE's new 30% energy reduction over 90.1-2001 guidelines. (4) 2003 IECC with 2004 Supplements	Royal Oaks Country Club	Larry Degelman, P.E. Member TC-4.2,4.7 and 1.5
November 10, 2004	They Report - You Decide	Seminar comparing 5 manufactures of packaged DX RTU's with hot gas re-heat coils for humidity control. (2) Humidity Control Design Guide for Commercial and Institutional Bldgs.	Johnson Supply	1 Rep from Aaon, Trane, Carrier, Lennox, and York.
December TBD (1)	Ice Hockey and ASHRAE	Evening meeting with box dinner, tour of Frisco Star Center central plant, and attend game. Family and college students are encouraged to attend. (10) Texas Tornado t-shirts	Frisco Star Center	TBD
January 12, 2005	Designing Dallas	Annual Design Competition. (2) Gift certificates for winners	Royal Oaks Country Club	TBD
January 27, 2005 (2)	The President in Arlington!	ASHRAE President Ron Vallort speaks to a joint Fort Worth-Dallas Meeting	University of Texas at Arlington	Ron Vallort-ASHRAE
February 10, 2005 (3)	Where does that noise come from?	How to mitigate noise from mechanical rooms and above ceiling mtd. equipment. (1) Practical Guide to Noise and Vibration for HVAC Systems & (1) Application of Manufacturers Sound Data	Royal Oaks Country Club	Ted Carnes-PMK
March 9, 2005	Controversies in Engineering Ethics	A Panel Discussion on an engineering ethics case study. Counts for Ethics requirement for Texas P.E.'s! (3) ASHRAE Pocket Guides	Royal Oaks Country Club	Panel of Presenters
April 13, 2005	Green. It's not just for Trees!	Seminar on LEED criteria, product showcase and sustainable bldg. design. AIA encouraged to attend. (1) ASHRAE Green Guide & (1) ASHRAE Under floor Air Distribution Design Guide	Royal Oaks Country Club	Multiple - TBD
May 11, 2005	Where does your Research Money Go?	Research project presentation. (1) Duct Fitting loss Coefficient Tables & (1) Laboratory Design Guide	Royal Oaks Country Club	TBD

Notes:

- 1) Note that this will be an Evening Meeting.
- 2) Note that no business will be conducted at this meeting. This is a special meeting to hear the president speak.
- 3) Note that this meeting is on a Thursday so as not to conflict with the Annual Winter Meeting.

ASHRAE, Dallas Chapter
 PO Box 802426
 Dallas TX 75380-2426



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RESERVATION POLICY: To encourage members to make early reservations, the CHAPTER offers meals at the reduced rate of \$20.00. The regular rate of \$25.00 per meal is charged for all meals for which there is no prior reservation. A non-diners' table is provided for the convenience of those who do not want to eat a meal, but do want to attend the CHAPTER meeting. Reservations must be made by 12 NOON of the Monday prior to a CHAPTER meeting. If necessary, a previously made reservation may be cancelled no later than 8 AM of the day before a CHAPTER meeting. Those who have made reservations for a meal are responsible for payment to the CHAPTER, even if they cannot attend the meeting.

2004-2005 Dallas Chapter Officers and Board of Governors

The Officers, Board of Governors and Committee Chairs may be contacted via the following phone numbers or at the Chapter address; P.O. Box 802426, Dallas, 75380-2426

		Phone	Fax
President	Paul Oxenreider	214/649-5739	214/765-8794
President-Elect /Programs	Nathan Hart	972/788-4222	972/488-0002
Research Promotion	Walter Horn	214/739-8880	214/739-1777
Secretary	Jeanine Bounds	214/874-0200	214/824-1155
Treasurer	Mark Meyer	972/570-4700	972/570-4207
Immediate Past President	Chris S. Smith	214/920-8162	214/688-0618
Governor Membership Promotion	Rick Lobb	214/912-2864	972/291-2948
Governor TEGA	Mark Meyer	972/241-9411	972/484-6013
Chapter Technology Transfer	Tony Zemanek	972/367-2771	972/620-3555
Governor Student Activities	Kurt Penner	972/818-0263	972/818-6522

2004-2005 Dallas Chapter Committee Chairs

Historian	Bob Timberlake	214/349-2319	214/343-1612
Webmaster	Justin Bowker	972/888-9369	972/888-9338
Roster	Collin Upham	214/522-8777	214/526-1410
Newsletter Editor	Jeff Farley	972/888-9293	972/888-9338
Photographer	Paul LeMaire	214/620-3500	214/620-3555
Honors & Awards	Joe Pietsch	214/350-8209	214/350-7607
Golf	Rusty Vaughn	972/570-4700	972/570-4207
Publicity	Leo Stambaugh	214/369-3500	214/369-2441

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