



Giga-Joule

Greenville
Chapter of
ASHRAE

February 2007

Meeting Announcement

This month's meeting will be held on **Tuesday, February 20th, 2007 from 11:30 am to 1:00 pm at the Roper Mountain Science Center** located at the intersection of I-385 and Roper Mountain Road. For directions, please contact Programs Chairman, Graham Fizer, by phone at 864.627.9675 or e-mail at programs@ashrae4greenville.com.

A Message from the President

The Greenville Chapter would like to thank Chris Edmondson for his presentation on Air Management and System Pressurization in Hydronic Systems. We had a great turnout for our first meeting of 2007. After seeing Chris's presentation, I think we can all agree that this is an essential component to make hydronic systems work properly.

Please come and join us for February's meeting. Dan In-Hout is another ASHRAE Distinguished Lecturer that will be visiting our chapter.

February's meeting will also be our Spring Membership Promotion Day. Any member that brings a guest who fills out an application will have their lunch plus their guest's lunch on the chapter.

We would also like to invite any past chapter presidents to join us for the February meeting. Please come out and the chapter will buy your lunch!

On a final note, we are currently accepting nominations for new officers, committee chairmen, and committee members for the 2007 – 2008 ASHRAE year. Please let any of our current officers know that you are interested in participating, and we'll find you a place for next year.

Eric Scott
Greenville ASHRAE President
president@ashrae4greenville.com

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Chapter Programs



Program: Selecting VAV for Acceptable IAQ

In order to meet the increased expectations of building occupants, designers must be aware of the conflicts between first cost economics, occupant productivity and life cycle costs. Buildings that do not meet the needs of the occupants often result in expensive redesign or worse, result in lawsuits against all parties involved. Recent court cases make it imperative that designers understand the changing 'rules' of the road. Recent Specifications for VAV components are often flawed, and meeting the specification will result in unacceptable spaces, and poor IAQ.

With the release a number of new ASHRAE and LEED rules we are getting a number of questions regarding the proper selection and interpretation of VAV terminal specifications. Dan will discuss proper engineering specifications and designs for this broad product range, with updates on the latest rules and knowledge regarding VAV box type, linings, accessories and air flow limitations. New products, including proportional reheat and ECM motor issues will be discussed.

Presenter: ASHRAE Distinguished Lecturer, Dan Int-Hout III, Chief Engineer - Krueger



Dan Int-Hout, Chief Engineer, Krueger, is responsible for the presentation of technical data and advanced application engineering for the Grilles, Registers and Diffusers, as well as the VAV air terminals, produced by Krueger. He has been in the Air Distribution research and design business since 1973, and has a Masters in Business Management from Central Michigan Univ., and a Bachelor in Biology & Physics from Denison University.

Dan originally joined Krueger in 1981, but has had several other jobs in the industry, including Owens Corning Fiberglas, Carrier, Titus and Environmental Technologies, in engineering, marketing and product research roles.

Dan has written over 35 technical papers and articles on VAV system performance, acoustics, air diffusion, controls and occupant comfort. He was recently Chairman of both ASHRAE Technical and Standards Committees on Thermal Comfort, is a past Chairman of several other related ASHRAE Technical and Standards Committees, as well as ASHRAE Standards, Technical Activities (TAC) & Environmental Health Committees. He received the ASHRAE Distinguished Service Award in 1993. Dan is currently the Chairman of the ARI committee on Applied Acoustics (885) and Chair of ISO 205 US Panel on Thermal Comfort. Dan is Section Head of the Air Control and Air Distribution Devices section of ARI for the 2007-2008 period.

Location: Roper Mountain Science Center – Auditorium (See front page for directions)

Date: Tuesday, February 20, 2007

Schedule: 11:30 a.m. Doors Open
11:35 a.m. Lunch served
11:45 a.m. to 12:00 p.m. Chapter Business
12:00 p.m. to 1:00 p.m. Main Program

Cost: \$10/person - Lunch is included. Members eat free if accompanied by a guest with completed membership application. Guests eat free with completed membership application. Must RSVP for free lunch!

Please reply to programs@ashrae4greenville.com by Thursday, Feb. 15th. Must RSVP to ensure lunch!

Education: This program qualifies for 1.0 PDH (including NC PE as well) **Don't forget to RSVP!**

Graham Fizer
Programs Chairman
programs@ashrae4greenville.com

Resource Promotion

SPRING ASHRAE GOLF TOURNAMENT

MAY 17, 2007

**VERDAE GREENS
1:00 SHOTGUN START**

**\$200 PER TEAM
\$200 HOLE SPONSOR
\$150 LONG DRIVE CONTEST
\$150 CLOSET TO THE PIN
\$200 DINNER SPONSOR
\$200 DRIVING RANGE SPONSOR**

ALL MONEY GOES TO ASHRAE RESEARCH PROMOTION. FOR ANY SPONSORSHIPS, PLEASE MAKE A CHECK TO:

**ASHRAE – RP
C/O WILL THOMASON
103 SMITH HINES ROAD
GREENVILLE, SC 29607**

FOR THE GOLF, PLEASE MAKE A CHECK OUT TO GREENVILLE ASHRAE. IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT WILL THOMASON AT (864) 421-2949. DOOR PRIZES ARE NEEDED AND WELCOMED. WE ARE GOING TO BE PLAYING A CAPTAIN'S CHOICE FORMAT. BOX LUNCH AND DRINKS WILL BE PROVIDED. I LOOK FORWARD TO SEEING YOU OUT THERE. REMEMBER, THIS MONEY GOES TO RESEARCH PROMOTION FOR FUTURE PROJECTS THAT AFFECT EVERYONE.

WE ARE ALSO DOING SOMETHING NEW THIS YEAR TO RAISE MONEY. WE HAVE 4 LEVELS OF GIVING. THIS IS BASED ON 2 GOLF TOURNAMENTS PER YEAR.

PLATINUM SPONSOR (\$1000)

**2 HOLE SPONSORSHIPS (1 IN EACH TOURNEY)
2 TEAM SPONSORS (1 IN EACH TOURNEY)
YOUR AD IN THE GIGA-JOULE
YOUR AD ON THE WEBPAGE
PERSONAL RECOGNITION AT EVERY MEETING**

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**1 HOLE SPONSOR
PERSONAL RECOGNITION AT THE MEETING**

Membership Corner

Membership Promotion Meeting 2 of 2 for this year. For these meetings, we offer a free lunch to all New Members who join us with an application. We also offer free lunch to those who bring a guest who is signing up to join us in ASHRAE. We are still running our membership promotion contest which states for the first 5 members who sponsor 2 new candidates, we will cover the members annual membership dues. We have 3 members who have signed up a new member each. We are excited to see new faces and new members each month. We hope to see everyone at our meeting and meeting the new members they bring to join us.

For questions and applications, contact me. membership@ashrae4greenville.com or (704)664-4907

Chris Adams

Membership Chairman

membership@ashrae4greenville.com

Technology Transfer

In case you've ever needed a quick method to relate filter efficiency to the new MERV ratings; here are some websites which may help.

This first document one is to the CDC website for the Nat'l Inst. for Occupational Safety and Health (NIOSH) document called "Guidance for Filtration and Air-Cleaning Systems to Protect Building Environments from Air borne Chemical, Biological, or Radiological Attacks" dated 4/03.

<http://www.cdc.gov/niosh/docs/2003-136/2003-136.html> and this Table 1

Comparison of ASHRAE Standard 52.1 and 52.2 is taken from this document which calls out MERV Ratings for the 99.97-99.9999% filters

<http://www.cdc.gov/niosh/docs/2003-136/2003-136c.html#tab1>

Page 2 of this document

<http://www.progress-energy.com/custservice/flacig/resourcectr/EcurrentLinesMar2005.pdf> is another reference made to the higher efficiency filters in table format which I believe is Table E-1 Application Guidelines from 52.2 Appendix E - Cross-Reference and Application Guidelines which is referred to in the ASHRAE clarification discussed below.

And last but not least, this clarification by the SSPC 52.2 Committee members discusses one of the problems with the comparison table and what the SSPC 52.2 committee's response was to this issue.

http://www.ashrae.org/content/ASHRAE/ASHRAE/ArticleAltFormat/2003625104458_347.pdf In the "Comments" of this clarification lies the answer to why there are mis-interpretations regarding filter efficiencies, and an example of a MERV 6 efficiency comparison was used as an example...

"Table E-1 referenced...is an APPROXIMATE comparison of the results from the two methods of test and is not intended as an exact cross reference."

Historian

We will pay special emphasis to the history of the Greenville chapter at our February meeting. To encourage our more seasoned and wiser members to attend, the chapter will pay for the meals of all past presidents, life members and ASHRAE fellows. Come join us! Please remember to RSVP so we have an accurate head count.

At this chapter we will be issuing certificates to the following Greenville members:

| | | |
|--------------------|---|-----------------------|
| Franz Sparovic | - | Life Member |
| Kenneth T Holbert | - | Fifty-Year Member |
| Furman Capps | - | Life Member |
| Ronald W Miller | - | Life Member |
| Robert C. Richards | - | Life Associate Member |

Please try to attend if you are one of the above recipients. Congratulations to these members for achieving these milestones!

If you have an interesting story to tell about the old days, please don't hesitate to call or write me. We would like to include your story in this newsletter!

Can any of you remember the days when there was only one ASHRAE chapter in entire state of SC and the meetings rotated between Charleston, Columbia and Greenville/Spartanburg? Please share your stories about those golden days. Tell us about some of the first large air conditioning systems installed in the state. There is a lot all us can learn from the past. We hope to hear from some of you!

Paul Jenson

Historian

history@ashrae4greenville.com

Greenville Chapter ASHRAE

2004-2005 Chapter Officers

| Office | Officer | Company | Phone | Fax | email |
|--------------------|-----------------|--------------------------------|------------------|------------------|--|
| President | Eric Scott | Carrier Carolinas | 232-6633 x21 | 242-0292 | president@ashrae4greenville.com |
| Programs/ PE | Graham Fizer | York International | 627-9675 x120 | 627-0953 | programs@ashrae4greenville.com |
| Secretary | Scott Houston | Thermal Resource Sales | 250-2822 | 250-0585 | secretary@ashrae4greenville.com |
| Treasurer | Rodney Hinton | Palmetto Air Test & Balance | 877-6382 | 877-5490 | treasurer@ashrae4greenville.com |
| Membership | Chris Adams | Adams Companies Inc. | 704-664- 4907 | 704-664- 0846 | membership@ashrae4greenville.com |
| Research Prom. | Will Thomasson | James M. Pleasants | 232-0200 | 232-0025 | rp@ashrae4greenville.com |
| CTT | Devon Cortright | H2L | 233-8844 | 232-2679 | ctt@ashrae4greenville.com |
| Student Activities | | | | | sa@ashrae4greenville.com |
| Historian | Paul Jensen | Trane Upstate Carolina | 672-6130 | 672-6001 | history@ashrae4greenville.com |
| Webmaster | Karl Counts | Day & Zimmermann | 241-8335 | 241-6750 | webmaster@ashrae4greenville.com |

Tentative Meeting Dates for 2006-2007

| | | |
|-----------------|---|---|
| Tues 9/21/2006 | ERV Technology | Bruce Anderson, Micrometl |
| Tues 10/17/2006 | Controls Protocol & Integration | Jeff Swiderski, Carrier Controls |
| Tues 11/14/2006 | Indoor Air Quality & Mold; Legal Issues & Liability | Chris McDonald, Shook Hardy & Bacon |
| Tues 12/12/2006 | Acoustics | David Egan |
| Tues 1/16/2007 | Building Code Review | Code Official |
| Tues 2/20/2007 | Selecting VAV for Acceptable IAQ | Dan Int-Hout III, Chief Engineer, Krueger |
| Tues 3/15/2007 | Joint Meeting with Mechanical Contractors Association | David Hensley |
| Tues 3/20/2007 | Fan Selection, Installation and System Effect | Rad Ganesh PHD, PE; Twin City Fan |
| Tues 4/10/2007 | Mechanics of Refrigeration Cycle | Tom Shiflet, Greenville Tech |
| Thurs 4/19/2007 | Satellite Broadcast | |
| Tues 5/15/2007 | LEED | Jay Elridge, McQuay |

Greenville Chapter of ASHRAE



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Technology for a Better Environment