



Giga-Joule

Greenville Chapter

February, 2010

<http://www.ashrae4greenville.com/newsletter.php>

Meeting Announcement

The February meeting will be held on Thursday, February 11th at the Roper Mountain Science Center. The details are listed on the Programs Page. For more information, please contact our Programs Chairman, Manuel del Valle, by phone at 864-234-3802 or email at programs@ashrae4greenville.com

A Message from the President

The weather has been real wintery these past couple of weeks. Scattered snow has kept me inside and trying to stay warm. It is tiring me out. Thankfully we have spring golf tournament to look forward to! Please look to the end of the newsletter and on our website to get your teams together for April 15, 2010. We will have handouts at our next chapter meeting.

Also in April will we be having elections for the chairs serving the Greenville Chapter of ASHRAE. If you are interested in serving one of the chairs or would like to be on a committee, please tell one of the officers and we can get your name into the pot.

Please see the programs section for this month's presentation. BIM is something we all may have heard of but do not know too much about. Come to the meeting this month to learn more about it. I look forward to seeing you there.



Davin Sandhu
President

president@ashrae4greenville.com

Call or email me with any comments or suggestions. I am always open to new ways to improve the ASHRAE experience for our members

Chapter Programs



Manuel del Valle
Programs Chair
programs@ashrae4greenville.com

Last month Mr. Manuel A. del Valle, P.E. gave a presentation on the basics of duct design. He once again stepped in at the last minute to save the day since our original speaker could not make it. For those of you that were at the presentation, all I can say is that with a critic like him, it's no wonder why I left the design world. I thought it was a great refresher and well received by all. This month we will return to our regularly scheduled programming and we will be hosting Dennis Knight, P.E. Mr. Knight is an ASHRAE Distinguished Lecturer and will be presenting Building Information Modeling or BIM.

February Meeting

Program: Building Information Modeling (BIM)

Presenter: Dennis Knight, P.E.

Mr. Knight comes to us from Liollo Architecture in Charleston, SC where he serves as Director of Technical Support. He is also vice chair of ASHRAE's technical committee on integrated building design which is actively participating in the process of making BIM a preferred method of designing, constructing and operating buildings.

Mr. Knight has 35 years of experience providing engineering, design and construction related services within the building industry. At Liollo Mr. Knight utilized his extensive experience in the design and construction industries to assist the architectural and design professionals, project managers, business development department and corporate management within the firm as well as third party consultants and clients in the preparation of construction documents and contracts, code analysis and product research, preparation of LEED Documentation, and prepares design and construction cost estimates.

Prior to joining Liollo Architecture, Mr. Knight was an owner and managing member of a local engineering and construction company for 23 years. He strives to facilitate the integration of each element and discipline required in a project, with consideration of the life-cycle costs and benefits related to those elements, so that all the pieces and parts of a design work together in concert with each other and their surroundings.

Location: Roper Mountain Science Center (www.ropermountain.org)

NOTE: We will be in the science lab next week as opposed to the usual room. If you come in the main building go up the stairs and take a right.

Date: Thursday, February 11, 2010

Time: 11:15 a.m. Doors Open
11:30 a.m. Lunch Served
11:30 a.m. to 11:45 p.m. Chapter Business
11:45 a.m. to 1:00 p.m. Main Program

Cost: Lunch Program: \$10/chapter member \$15/non-chapter member (catered lunch)

Education Credit: This program qualifies for 1.0 PDH (including NC PE)

**Please RSVP to programs@ashrae4greenville.com
no later than Noon TUESDAY, February 11, 2010**

Membership Corner

ASHRAE Greenville would like to extend a warm welcome to our newest members and as always thank our returning members for their support throughout the year.

Next month (MARCH 2010) will be our second and final Membership Promotion Meetings for this year. During these meetings, we offer a **FREE LUNCH** to all New Members who join us with a completed application. We also offer **FREE LUNCH** to those Members who bring a guest with a completed ASHRAE Membership form. (NOTE: Forms will be available the day of the meeting or can be obtained by going to www.ASHRAE.org)



Invite, invite, invite – ASHRAE is open to any person associated with heating, ventilation, air conditioning or refrigeration through such disciplines as indoor air quality and energy conservation. We offer a few different types/grades of Membership – Member, Associate, Affiliate and don't forget Students. To find out more please join us for this meeting or any ASHRAE monthly meeting to learn how you can get a FREE Lunch at the March meeting held @ Roper Mountain Science Center. We are always looking for ideas on how to increase membership – We welcome any input throughout the year.

For questions and applications, contact me. membership@ashrae4greenville.com or (864) 444-0219

Greenville Chapter offers the following discounts to paid Chapter Members:

Discount Card

If you are a Society Member in good standing (society dues paid up) and have your Chapter Dues paid up, we will issue you a card at your first meeting of the year. Each time you pay for a meeting this card will be punched/notarized. When you have four (4) meetings paid for, the fifth is free.

***As a Reminder: ASHRAE Greenville Chapter Members - \$10.00 per meeting (includes lunch)
(Society & Chapter Dues Paid Up)***

Non-Chapter Members - \$15.00 per meeting (includes lunch)

Best Regards,
Dorothy Bertolini
Membership Chair – ASHRAE Greenville SC
membership@ashrae4greenville.com

Chapter Technology Transfer

So Long R-22

December 31, 2009 marked the end of the HCFC refrigerant R-22 in new equipment. The production of new R-22 for servicing existing equipment will be phased out over the next ten years; after that only recovered R-22 will be available. R-22 goes the way of the CFC refrigerants of R-11 and R-12 in the early 90's. Prior to phase out, R-12 sold for approximately \$1/lb and, per one web site, is currently at \$30/lb. (It should be noted that federal excise taxes were added to the price of both of these refrigerants to accelerate their phase out.) R-22 and its apparent replacement, R-410A, are currently at approximately \$8/lb. Who knows where the price of R-22 goes from here other than up? For reference R-134 is slightly less at about \$7/lb.

The next significant step in refrigerant phase out is the controversial disappearance of the HCFC refrigerant R-123 in 2015, a refrigerant whose major fault appears to be its choice of chemical family. R-123 has a 120 GWP (Global Warming Potential) and a 0.012 ODP (Ozone Depletion Potential) as compared to R-134's 1300 GWP and 0 ODP. In 2015 the production of new equipment with R-123 stops; after 2030 only recovered and recycled R-123 will be available.

An article in the December issue of the ASHRAE Journal by Don Gatley discusses the use of "Liquid Sub-Cooling Air Re-Heating" (LSCARH) reheat systems with R-410A. I have used the LSCARH reheat system successfully in the past, with R-22 equipment. The higher operating pressures with R-410A increase both the reheat and cooling effects of this "free" reheat method. It is worth investigating where a little reheat and a modest improvement in moisture removal is desired for humidity control.



Devon Cortright PE
Chapter Technology
Transfer Chairman
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Devon Cortright, P.E., LEED AP
Chairman Chapter Technologies Transfer, Greenville Region IV
ASHRAE Member Since 1982

**ASHRAE GOLF TOURNAMENT
APRIL 15, 2010 @ 12:00**



Warm weather is on the horizon and it is time to knock the rust off of the clubs. We will be having our ASHRAE Golf Tournament on Thursday, April 15, 2010 at the Verdae Greens Golf Club promoting Research Promotion for ASHRAE. There will be range balls, carts and golf included in the registration fee. It will be a 12:00 shotgun start followed by a “Low Country Boil” at the pavilion adjacent to the clubhouse. Please sign up early and get your teams together.

Sponsorship Sheet



Individual Golfer - \$65.00 _____
Team of 4 Golfers - \$260.00 _____
Hole Sponsorship - \$200.00 _____
Tee Sponsorship - \$200.00 _____
Long Drive Sponsor - \$200.00 _____
(2) Closet to the Pin - \$200.00 each _____
Lunch Sponsor - \$500.00 _____
Mulligans, 1 per golfer - \$10.00 _____

If you wish to make a donation to ASHRAE Research, please see someone on the Board for more information. If you would like to donate any door prizes, please contact someone on the Board or Will Thomason at 421-2949 or email wiltt@jmpco.com. I look forward to everyone coming out and supporting ASHRAE. See the website listed here for ASHRAE Research projects, goals and objectives that we will help fund thru our donations, www.ashrae.org/research

Tentative Event Dates for 2008-2009

Thursday 09/10/2009	September Chapter Meeting: Wastewater Treatment	Presenter: Victor Walker
Thursday 10/08/2009	October Chapter Meeting: SC Energy Office – ARRA (Stimulus Funding)	Presenter: Trish Jerman
Thursday 11/12/2009	November Chapter Meeting: Electrical Design Issues for the Mechanical Engineer	Presenter: Bob Bruns, PE
Thursday 12/10/2009	December Chapter Meeting: Chilled Beams @ Furman University	Presenter: Tom Rice
Thursday 01/14/2010	January Chapter Meeting: Ductwork Design: To do or not to do	Presenter: Manuel A. del Valle, PE*
Thursday 02/11/2010	February Chapter Meeting: Building Information Modeling	Presenter: Dennis Knight *
Wednesday 03/11/2010	March Chapter Meeting: Ethical Decision Making	Presenter: Barry Benator *
Thursday 04/08/2010	April Chapter Meeting: Hydronic Systems	Presenter: Chris Edmunds *
Thursday 04/15/10	ASHRAE Golf Tournament	
Wednesday 04/21/2010	ASHRAE Webcast: Comissioning for High Performance Buildings	
Thursday 05/14/2010	May Chapter Meeting: Variable Frequency Drives	Presenter: Greg Heartman



ASHRAE
Technology for a Better Environment

Region IV
Greenville Chapter