



Giga-Joule

Greenville Chapter

January, 2010

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

Meeting Announcement

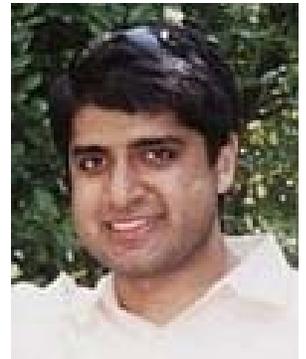
The January meeting will be held on Thursday, January 14th at the Roper Mountain Science Center. The details are listed on the Programs Page. For more information, please contact our Programs Chairman, Manuel del Valle, by phone at 864-234-3802 or email at programs@ashrae4greenville.com

A Message from the President

I hope everyone had a safe and enjoyable time during Christmas and New Years!! The first half of the 2009-2010 year has been very successful. Our visit out to Furman in December had ample attendance and was a very interesting topic. In 2010 let's look to carry forward our high attendance and relatable programs.

I look forward to seeing all you at our next meeting on January 14, 2009. There has been a quick change of plans due to our original speaker's having other priorities that he needs to attend to. Please see Manuel's section below for the new speaker's information.

This month we will continue having our meetings at the Roper Mountain Science Center. Our meetings will be eligible for professional development hours (PDH) and we pass out certificates for both South Carolina and North Carolina Licenses. The cost of lunch is \$10 for a chapter member and \$15 for everyone else.



Davin Sandhu
President

president@ashrae4greenville.com

Chapter Programs



Happy New Year!!! I hope everyone had a happy and safe holiday. Last month we had a great visit to the Furman University campus. I wish we would have had more time to get into the nuts and bolts of chilled beam systems, but we can only cover so much during an hour presentation. Regardless, I think that Tom Rice gave us some good insight regarding common applications for the chilled beam system.

Our January meeting has been changed from the original plan. We had scheduled Ward Lambert to speak about the legal aspects of our business, but unfortunately he has to be in court on the same day as the meeting. Luckily, Manuel A. del Valle has agreed, after some arm twisting, to step in and fill the vacancy. We discussed some of his available topics and decided on a practical lesson for our environment, rather than some of the specialized topics he has discussed at past meetings. He will be pulling out an older presentation that I think is practical and will be a great refresher for some of us. He will be covering some of the basics of duct layout/design. I hope to see you all at the meeting next week.

January Meeting

Program: Ductwork Design: "To do or not to do"

Presenter: Manuel A. del Valle, PE

Manuel A. del Valle recently retired as Director of HVAC Design at Fluor Daniel in Greenville, South Carolina after accumulating over 40 years of experience in HVAC design, specializing in pharmaceutical and biotech facilities in the United States, Europe and Puerto Rico. Manuel earned his Bachelor of Science in Mechanical Engineering from the College of Engineering at the University of Puerto Rico, Mayaguez Campus in 1965. He joined Daniel Construction Company International in 1969 as Field Mechanical Engineer in Puerto Rico. In 1971 Manuel became Manager HVAC Design at Scovil Engineers. Manuel came to Fluor Daniel Greenville in 1987 as Lead HVAC Engineer and served later as Manager HVAC in San Francisco, California. He then served as Director of HVAC Design in Fluor's Greenville office.

Manuel is a Registered Professional Engineer in Puerto Rico, South and North Carolina, Pennsylvania, New Mexico, California, Rhode Island and Colorado. He is a member of ASHRAE and the International Society for Pharmaceutical Engineering. He is a frequent speaker at conferences for associations such as ISPE, ASHRAE, Parenterals Drug Association, American Society of Mechanical Engineers, Barnett International, and the Institute of International Research. He has published a number of articles in trade publications such as Pharmaceutical Engineering; Biopharm, Heating, Piping, & Air Conditioning; and CleanRooms Magazine.

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

Date: Thursday, January 14, 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, January 12, 2010***

Membership Corner

On behalf of ASHRAE, Greenville SC Chapter ~ We would like to extend a very ***Merry Christmas*** and a ***Happy New Year to all.***

Thanks to all ASHRAE Greenville Members, visiting members and guests who attended the Chilled Beam Tour at Furman University this month...what a great turnout. A special thanks to the folks at Furman who helped to make this happen.

As the ASHRAE Membership Chair for the last two years I know that we are constantly looking for ways to boost our membership...Your participation is greatly appreciated. Bring a friend to a lunch meeting and let him/her know how ASHRAE Membership has benefited you. All mechanical engineers, mechanical contractors, facility managers, engineering students and anyone involved in any and all aspects of the HVACR industry are welcomed to join ASHRAE. Our second Membership Promotion Meeting is scheduled for March – We are soliciting ideas on how to promote ASHRAE Membership, retain current Membership and fund raising...Please feel free to contact me at membership@ashrae4greenville.com or 864-444-0219 or any of the other ASHRAE Board Members.



Reminder that Chapter Membership Dues will go up by \$5 starting January 1, 2010. This was a raise as voted on by the chapter in October's Meeting from \$25 per chapter member to \$30 per chapter paying member. Please see me if you have any questions or need to renew your Membership.

Also don't forget to pick up your Discount Card ~ and be sure to present your card at each meeting you attend. **Card Requirements:** 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.***

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

Chapter Technology Transfer

2006 International Mechanical Code Grease Duct

Prior to the enforcement of the 2006 International Mechanical Code, field applied fire rated wrap for grease duct was required to comply with UL 184. Installation was a single layer of material with a 3" wide overlap at the insulation seams. On January 1, 2009, UL 184 as it applies to fire rated wrap on grease duct was superseded by UL 2221 and ASTM E2336. What this alphabet soup of numbers means is that you are no longer allowed to wrap grease exhaust duct with a single layer of the ceramic fire wrap, it now requires two layers.

Naturally, I managed to learn this lesson on the fly on a design that had no extra space to begin with. The installing contractor was kind enough to "educate" me on some of the difficulties associated with the new requirements. Two layers of 1.5" thick insulation appears to add a total of 6" to the welded metal duct, but the installation technique required by the UL listing is that insulation seams must be lapped a minimum of 3". Revise the outside dimension of the grease duct to at least 7.5" larger than the metal duct - four layers of 1.5" insulation plus one overlap. Of course it gets worse if the first layer overlap and the second layer overlap happen to fall in the same location. Now my "teacher" explains that some clearance is need to physically install the wrap, the required banding, and joint tape. He requested 4" of free space above and another 4" below, but is settling for less.

The ceramic fire rated duct wrap is made by a number of manufacturers and is available in a style that is 2" thick, but still has to be installed in 2 layers with lapped joints.

And I thought the space I was given for the mechanical room was small!

The moral of the story is that be cautious with how much room you need for grease duct and your "teacher" may be some one you least suspect.



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

Tentative Event Dates for 2009-2010

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| 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 * |
| Wednesday 04/21/2010 | ASHRAE Webcast: Comissioning for High Performance Buildings | |
| Thursday 05/14/2010 | May Chapter Meeting: Variable Frequency Drives | Presenter: Greg Heartman |
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*ASHRAE Distinguished Lecturer



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Technology for a Better Environment

Region IV
Greenville Chapter