



# Giga-Joule

Greenville Chapter

November, 2011

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

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## *Meeting Announcement*

The October meeting will be held on Thursday, November 10th at the Roper Mountain Science Center. The details are listed on the Programs Page. For more information, please contact our Secretary, Ryan Tonnsen, at [secretary@ashrae4greenville.com](mailto:secretary@ashrae4greenville.com)

## *A Message from the President*

Thanks to our speaker David Graham for making the trip to Greenville to give us a good presentation on Water Treatment. The evaluations scored well for the most part besides for a few minor marks for commercialism.

The food last month was BBQ, and everyone seemed very pleased. We are going to stick with our current Caterer for the remainder of the year..

We are very excited about our Student Chapter Meeting at Clemson this **Thursday, November 3<sup>rd</sup>**, at the Fluor Daniel Building, Room 132. Ron Jarnigan (ASHRAE Society President) will be our Honorary Speaker and will be handing over the Clemson Student Chapter Charter and Banner. His topic will be about the renovation of the ASHRAE Headquarters building, which received LEED Platinum Certification. The reception begins at 6:30 in the lobby with Hors d'Oeuvres. We will be seated at 7:00 and the meeting will begin. A big thanks to Commissioning Consultants, LLP for sponsoring this event!

**We encourage Chapter Members to attend this meeting and support our new Student Chapter!**

The golf tournament (originally scheduled to be on October 14<sup>th</sup>), is now being pushed back to November 11<sup>th</sup>, which is the day after our next Chapter Meeting. We will still be at Green Valley. Get your teams together and let's make a great turnout for this year's Golf Tournament. See below for Ryan's message for more details and remember that the Golf Tournament benefits Research Promotion.

One last reminder – our Chapter Meeting costs are \$15 for non-members and \$10 for members. This goes for whether or not you participate in the meal. There are other costs our Chapter incurs besides the food that we need to make up (for instance, renting out the Roper Mountain Science Center). So please be prepared to pay the meeting fee even if you don't plan on eating. Thanks in advance for your cooperation on this.

**Grant Wiegmann**  
**Chapter President**  
[president@ashrae4greenville.com](mailto:president@ashrae4greenville.com)



## *Membership Corner*

### **MEMBERSHIP PROMOTION MEETING – THURSDAY NOVEMBER 10TH**

**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.

Please join us for our First of two **Membership Promotion Meetings** on Thursday November 10, 2011 at the Roper Mountain Science Center. You are encouraged to bring a friend along with a completed ASHRAE Membership application including payment to the meeting. You will then be our GUEST (**Greenville Chapter of ASHRAE**) for the afternoon. Existing Members who recruit a potential new member, again, with completed Membership form and payment YOU will also be entitled to attend this meeting FREE of charge.



**(NOTE: Forms are available by going to [www.ASHRAE.org](http://www.ASHRAE.org) or the day of the meeting)**

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.

Note to existing members – please update your bios on the at [www.ashrae.org](http://www.ashrae.org)

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](mailto:membership@ashrae4greenville.com) or (864) 444-0219

Best Regards,

**Dorothy Bertolini**

**Membership Chair – ASHRAE Greenville SC**

[membership@ashrae4greenville.com](mailto:membership@ashrae4greenville.com)

## *Chapter Programs*

As mentioned above, we are handling the Programs Chair by committee until we come up with a chairman.

This month's technical presentation is "Variable Volume Kitchen Application/Design." Please RSVP so that we can make arrangements to have the appropriate amount of food available.

### *November Meeting*

**Program: Variable Volume Kitchen Application/Design**



**Brian Rivet**  
**Product Manager – Kitchen Systems**  
**Greenheck Fan Corporation**

Brian is the Product Manager of Kitchen Ventilation Systems at Greenheck Fan Corporation. He holds a B.S. in Mechanical Engineering and a Masters of Business Administration. Brian has been working in kitchen ventilation systems industry for more than 7 years on both on new construction and existing building applications. His experience and work has focused on effective and efficient kitchen ventilation system design, product application and new product development. Brian has published several industry articles in Consulting-Specifying Engineer, Restaurant Facility Business and AMCA InMotion magazines and is an NFPA member.

**Location:** Roper Mountain Science Center ([www.ropermountain.org](http://www.ropermountain.org))

**Date:** Thursday, November 10, 2011

**Time:** 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:** 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 [secretary@ASHRAE4greenville.com](mailto:secretary@ASHRAE4greenville.com)  
No later than Noon Tuesday, November 8, 2011**

# *Chapter Technology Transfer*

## SCDHEC Regulations

What does one use as a guideline when designing HVAC and/or plumbing for a health care facility? Most of us pull out the ASHRAE handbook or guidelines. This is a good start, but it is not enough. In South Carolina the licensing of health care facilities, restaurants, and a number of other facilities – including tattoo parlors – are governed by the South Carolina Department of Health and Environmental Control (SCDHEC). The SCDHEC regulations associated with HVAC and plumbing frequently mimic the generally accepted industry standards, such as ASHRAE, but not always. A list of health regulations with download links is available at

<http://www.scdhec.gov/health/hrreg.htm>

## Heat Pump Water Heaters

The client on a recent project expressed some interest in “green” ideas. This medium size stand alone office building seemed like a place to explore the use of a heat pump water heater, also referred to as a hybrid water heater. A hybrid water heater uses a refrigeration cycle to pull heat out of the air and heat water in a storage tank. The tank is also equipped with electric resistance elements as a back-up and to supplement the heat pump during high demand periods. The hybrid uses approximately ½ the energy of a conventional electric water heater. A by-product of the process is cool air. On the surface this sounds great, but there is always a catch. Apparently these hybrid water heaters put out enough cool air that one should be careful about where they are installed. Rheem recommends a minimum of 1000 cubic feet of air and a minimum space temperature of 40 deg. F. State recommends 760 cubic feet of air and an ambient temperature range of 45 to 109 deg. F. The cool air by product sounds during the summer, but what do you do with it in the winter? Still worth considering, but be aware of the limitations.

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



**Devon Cortright PE**  
**Chapter Technology**  
**Transfer Chairman**  
[ctt@ashrae4greenville.com](mailto:ctt@ashrae4greenville.com)

## Tentative Event Dates for 2011-2012

Thursday 09/08/2011	September Chapter Meeting: Fabric Duct Design	Presenter: Chris Pavlatos
Thursday 10/13/2011	October Chapter Meeting: Water Treatment for Cooling Tower, Hot Water and Chilled Water Systems	Presenter: David Graham
Friday 10/14/2011	ASHRAE Golf Tournament	Green Valley Country Club
Thursday 11/10/2011	November Chapter Meeting: Variable Volume Kitchen Application/Design	Presenter: Brian Rivet
Thursday 12/08/2011	December Chapter Meeting: Wireless Communications	Presenter: JCI
Thursday 01/12/2012	January Chapter Meeting: IAQ Method of 62.1	Presenter: Charles Waddell
Thursday 02/9/2012	February Chapter Meeting: Flow and Energy Meters	Presenter: David Pleasants
Thursday 03/8/2012	March Chapter Meeting: Smoke Evacuation Systems	Presenter: George McCall
Thursday 04/12/2012	April Chapter Meeting:	Presenter:
?	ASHRAE Golf Tournament	
Thursday 05/10/2012	May Chapter Meeting: Retro-commissioning	Presenter: Roy H Bohanon ASHRAE Distinguished Lecturer



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Technology for a Better Environment

**Region IV**  
**Greenville Chapter**