



# Giga-Joule

March 2014

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

## NEW Meeting Location:

### M.T. Anderson Support Center

100 Blassingame Road  
Greenville, SC 29605

**I-85 SOUTH (WHITE HORSE ROAD):** Take I-85 S towards Atlanta to White Horse Road (Hwy 25) exit and turn right. Go to the first traffic light (McDonald's/Citco Station at the light), turn right. Go to the second left off Frontage Road (Connector Link), turn left.

**I-85 SOUTH (HWY 25):** Take I-85 S towards Atlanta to Greenwood (Hwy 25) exit. Get off at Hwy 25 North-Greenville exit. Turn right onto Augusta Road (Bus 25). Go one block and turn left onto James Street (Our Lady of the Rosary is on the right). Go to the stop sign, turn left on Frontage Road. Go to Connector Link and turn right.

**DOWNTOWN:** From Downtown Greenville, take Church Street (Hwy 29) to Augusta Road (Hwy 25). Turn left onto Augusta Road and head toward Greenwood. Go across Mauldin Road. At the next traffic light, turn right. This is Frontage Road. Stay on Frontage Road until you come to the Connector Link. Turn right.

<http://www.greenville.k12.sc.us/Schools/schoolmap.asp?schoolid=mta>

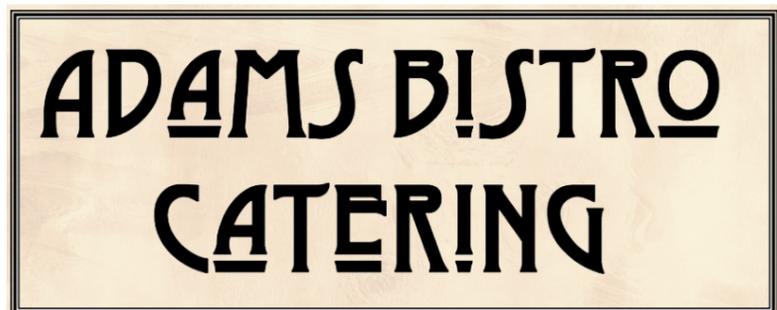


For more information, please contact our Secretary, Ryan Tonnsen, at [secretary@ashrae4greenville.com](mailto:secretary@ashrae4greenville.com).

## NEW Food Menu:

### March 2014 Meeting: No Charge if RSVP

The meeting price for all future meetings will be \$15.00 for Greenville chapter members; however there will be a discounted price if you pay in advance online; this incentive is offered so that we have a better estimate when ordering catering.



## *A Message from the President*

We're implementing some improvements to the ASHRAE of Greenville meeting experience! There's a new location and new caterer for this months' meeting. Your feedback is much appreciated.

We are always looking for new faces to participate on a committee or serve on the Board of Governors. If you would like to hear more information on what this would entail, please let me know.

We're having another ASHRAE meeting in Asheville! Please mark your calendar for 04/9/2014 to attend "Variable Volume Pumping" by David McDaniel. Mr. McDaniel will also be discussing this topic for the Greenville members the next day (4/10/14). More information will be available in the April GigaJoule but you can contact Mr. Kevin Brock ([Kevin.Brock@dnvgl.com](mailto:Kevin.Brock@dnvgl.com)) for details.

**Daniel Lowe**  
Greenville ASHRAE President  
[lowed@cxconsultants.com](mailto:lowed@cxconsultants.com)



## Membership

Greenville ASHRAE Members,

Greetings! A few things from Membership Promotion:

- 1) Thank you to everyone who took the time to fill out our membership survey last month. We will be reporting the findings at our next meeting.
- 2) Since we had to cancel our last meeting due to inclement weather, we will run the same "special" as last month. If you know of anyone that might be interesting in attending and/or joining our chapter, please don't hesitate to bring them. We will be drawing for a ***\$50.00 gift certificate to Best Buy this month.*** All you have to do to qualify is bring a guest to the meeting.
- 3) If you are interesting in joining the membership promotion committee, please email me at [tigueg@jmpco.com](mailto:tigueg@jmpco.com).

Thanks for everything you do for ASHRAE, and we look forward to seeing you at our next meeting.

Tigue Garick  
*Membership Promotion Chair*  
**Greenville ASHRAE**  
C: 864-616-0592



# March Meeting

**Presenter: Rodney R. Hinton, CxA, CPMP, BEAP, TBE, LEED AP**

Mr. Hinton has 31 years of experience in the design, installation, testing, supervision, budgeting and scheduling of HVAC and general mechanical systems for all types of facilities. Rodney has over 23 years experience in the Testing, Adjusting, Balancing and Commissioning of HVAC systems and is a certified to perform Commissioning and TAB by ASHRAE, AABC, ACG and NEBB. Mr. Hinton has managed the commissioning process for all types of projects including pharmaceutical clean rooms, hospitals, automotive, manufacturing, educational, military, and commercial office buildings. Rodney has also been a speaker at numerous ASHRAE meetings concerning the Testing, Adjusting, Balancing and Commissioning process and procedures and Building Envelope Leakage Testing.

**Programs: Controlling Outside Air in VAV Systems – 1 PDH**

**Location:** M.T. Anderson Support Center

**Date:** Thursday, March 13, 2014

**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. Program

**Door Prize:** If you bring a guest, you are eligible to win a \$50 Best Buy gift card!

**Promotional Cost:** If you RSVP by 12:00 PM Tuesday, 3/11/14 then there is NO CHARGE

**Cost:** Lunch Program: \$15/chapter member \$20/non-chapter member (catered lunch)

**Education Credit:** The Technical Programs qualify for 1.0 PDH (including NC PE) for each program attended.

**Please RSVP to [lowed@cxconsultants.com](mailto:lowed@cxconsultants.com)  
No later than Noon Tuesday, March 11, 2014**

# Chapter Technology Transfer

Unfortunately, Greenville's winter storm forced us to cancel our February Speaker, Doug Reindl who was going to speak on Ammonia Refrigerant Systems and Refrigerant Safety: Standard 15. Dr. Reindl will present these topics for us on December 11, 2014.



*Myrna Dayan, PE  
CTTC, Greenville  
Region IV  
nyrna@mail.ashrae*

## Free ASHRAE Webcast:

A graphic for a webcast. On the left is a red tag with a white string, featuring the text 'FREE ASHRAE Webcast' and a white icon of a house with a leaf. To the right, the text reads 'Buildings in Balance: IEQ and Energy Efficiency' in a large, bold font. Below that, it says 'April 17, 2014 | 1:00PM-4:00PM EDT'. The background is a light green and white pattern of architectural elements.

## Technology Awards – Extended until March 30!

ASHRAE Technology Awards recognize local members at the chapter level for outstanding design and innovations for effective energy utilization. The deadline for the Greenville Chapter will be March 30<sup>th</sup>, 2014

Technology Awards Categories include:

- Commercial Buildings (New & Existing)
- Institutional Buildings
  - Education Facilities (New & Existing)
  - Other Institutional (New & Existing)
- Health Care Facilities (New & Existing)
- Industrial Facilities or Processes (New & Existing)
- Public Assembly Facilities (New & Existing)
- Residential Buildings (New & Existing)

Winning entries in each category will compete at the Regional Competition for a chance to compete at Society level. The publicity could be a great marketing opportunity for you, your firm and your client. More information is available on the ASHRAE website at <http://www.ashrae.org/membership--conferences/honors--awards/technology-awards-program>. The short form may be used for the Chapter competition. We look forward to your entries!

In addition, there are Refrigeration Awards available in both non-comfort cooling and comfort cooling refrigeration applications, which highlight innovation and/or new technologies. The deadline for submission to the Society Refrigeration committee is May 1st. Further information on the Refrigeration Awards can be found on the ASHRAE website at:

<http://www.ashrae.org/society-groups/committees/refrigeration-committee>

## New ASHRAE 90.1-2013 Standard Achieves 6-10% Savings over previous version

The ASHRAE 90.1 2013 revision published in October 2013, will result in buildings that could achieve six to eight percent more efficiency than buildings built to the 2010 standard according to the analysis done by Pacific Northwest National Laboratories.

ANSI/ASHRAE/IES Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings, provides minimum requirements for the energy-efficient design of buildings except low-rise residential buildings.

The Illuminating Engineering Society of North America (IES) developed lighting energy efficiency provisions in the 2013 standard through modified LPDs and additional daylighting and controls strategies.

Sixteen different building prototypes were modeled in 17 different climate locations for a total of 272 building types and climate zone combinations.

The energy reduction was achieved through 33 addenda related to major changes to requirements regarding building envelope, lighting, mechanical and the energy cost budget. The major changes are: Building Envelope. Opaque elements and fenestration requirements have been revised to increase rigor while maintaining a reasonable level of cost-effectiveness. Opaque and fenestration assemblies in Tables 5.5-1 through 5.5-8 are revised in most climates. These changes include:

- Criteria requiring double glazed fenestration in many climates
- Minimum visible transmittance/solar heat gain coefficient (VT/SHGC) ratio to enable good daylighting with minimum solar gain, while not restricting triple- and quadruple-glazing.
- Simplification of the skylighting criteria.

Lighting: These changes include improvements to daylighting and daylighting controls, space-by-space lighting power density limits, thresholds for top-lighting and revised controls requirements and format.

Mechanical: Equipment efficiencies are increased for heat pumps, packaged terminal air conditioners, single package vertical heat pumps, air conditioners and evaporative condensers. Also, fan efficiency requirements are introduced for the first time. Additional provisions address commercial refrigeration equipment, improved controls on heat rejection and boiler equipment, requirements for expanded use of energy recovery, small motor efficiencies and fan power control and credits. Control revision requirements have been added to the standard such as direct digital controls in many applications.

Another important change for the 2013 standard is the first alternate compliance path in Chapter 6. Section 6.6 was added to the 2010 edition to provide a location for alternate methods of compliance with the standard. The first such alternate path has been developed for computer room systems and was formulated with the assistance of ASHRAE technical committee 9.9, Mission Critical Facilities, Data Centers, Technology Spaces and Electronic Equipment. This path uses the Power Usage Effectiveness (PUE) metric established by the datacom industry. This alternate efficiency path format provides a framework that could be considered for other energy using facets of buildings not easily covered in the prescriptive provisions of the standard.

[Summarized from <https://www.ashrae.org/news/2014/ashrae-ies-energy-standard-gains-30-percent-savings-over-2004-standard>]

## Event Dates for 2013-2014

Thursday 09/12/2013	Meet and Greet MEMBERSHIP PROMOTION MEETING	
Wednesday 10/09/13	ASHEVILLE Meeting @ Lenoir-Rhyne University Center for Graduate Studies of Asheville 36 Montford Ave., Asheville noon-1:30pm ASHRAE 90.1 - 2010 Waterside Economizer Standards	Presenter: James C. ("Chris") Edmondson, Jr. Distinguished Lecturer
Thursday 10/10/2013	ASHRAE 90.1 - 2010 Waterside Economizer Standards	Presenter: James C. ("Chris") Edmondson, Jr. Distinguished Lecturer
Thursday 11/14/2013	Liquid Desiccant Technology	Presenter: Steve Blinn
Thursday 12/05/2013	<b>ASHRAE Greenville 50<sup>th</sup> Anniversary Party</b> <b>Greenville Hyatt</b> <b>5pm-12am</b> <b>Featured Program: Climate Change</b>	Presenter: Thomas E. Werkema, Jr Distinguished Lecturer
Thursday 01/09/2014	Thermally Active Structures for Green Buildings Joint meeting with USGBC	Presenter: Daniel Nall, PE Distinguished Lecturer
<del>Thursday 02/13/2014</del>	<del>Ammonia Refrigeration Systems (Cancelled due to winter storm)</del>	<del>Presenter: Doug Reindl, Ph.D Distinguished Lecturer</del>
Thursday 03/13/2014	Controlling Outside Air in VAV Systems	Presenter: Rodney R. Hinton
Thursday 04/10/2014	Variable Volume Pumping	Presenter: David McDaniel
Thursday 05/08/2014	Integrated Building Design	Presenter: Charles E. ("Chuck") Gulledge III, PE Distinguished Lecturer



Unless otherwise stated meetings are:  
 2<sup>nd</sup> Thursday of the Month  
 11:30am – 1pm  
 M.T. Anderson Support Center  
 100 Blessingame Rd.  
 Greenville, SC 29605