



Giga-Joule

November 2013

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

Meeting Announcement

The November meeting will be held on Thursday, November 14 at the Roper Mountain Science Center. For more information, please contact our Secretary, Ryan Tonnsen, at secretary@ashrae4greenville.com.

A Message from the President

We are pleased to welcome Mr. Steve Blinn to discuss Liquid Desiccant Technology for our November meeting. This meeting will be great for those who are curious about this technology or might be interested to know how it is applicable to HVAC systems in our region. See the schedule below for more details on these events and all our 2013-2014 meetings.

December 05, 2013 will be an important meeting for all Greenville Chapter members. We are having an evening meeting for our 50th anniversary Greenville Chapter of ASHRAE at the Hyatt in downtown Greenville, SC. Please plan to arrive at 5:30 for a buffet dinner followed by a 6:30 presentation by Thomas Werkema, Jr; the featured program is "Climate Change." Event Parking is available at the adjacent parking garage beside the Hyatt at 111 Main Street. Cash bar is available and spouses are welcome. The event cost is \$25.00 per person, cash and check are accepted. We hope to see you there!

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.

Daniel Lowe
Greenville ASHRAE President
lowed@cxconsultants.com



Membership

Ladies & Gentlemen,

Hello from ASHAE Membership! This month, I would like to focus on Y.E.A. (Young Engineers in ASHRAE). Did you know that we have 206 members in our chapter, and only 15 are young engineers (35 or below)? Y.E.A. members are vital to the growth and sustainment of our chapter and all of ASHRAE. That being said, I have a new challenge for each of you this month. Look around your office, workplace, or customers' offices, and try to find at least one potential Y.E.A. member, and invite them to our next meeting. You may even offer to buy their lunch! If you have any questions, or have someone that you would like me to follow up with, please don't hesitate to ask. Again, thank you for helping promote our chapter, and I look forward to seeing you at our next meeting!

Tigue Garick
Membership Promotion Chair
Greenville, SC
864-616-0592

November Meeting

Presenter: Steve Blinn

Program: "Liquid Desiccant Technology"

Location: Roper Mountain Science Center (www.ropermountain.org)
Date: Thursday, November 14, 2013
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. "Liquid Desiccant Technology" Program
Cost: Lunch Program: \$10/chapter member \$15/non-chapter member (catered lunch)
Education Credit: The Technical Programs qualify for 1.0 PDH (including NC PE).

**Please RSVP to lowed@cxconsultants.com
No later than Noon Tuesday, November 12, 2013**

History

October 1982 (Revised February 1993)

GREENVILLE CHAPTER (097) REGION IV - ASHRAE

1963 to 1993 by Benny Bootle
Opening comments by Devon Cortright

Below is the text of the History of the Greenville Chapter as written by Benny Bootle in 1993. Benny was updating a document he wrote in 1982 for the 25th anniversary of the chapter. I have added (parenthetical comments) to some of Benny's text. A history of the chapter from 1993 to 2013 will be published in the next Giga-Joule.

1963 - 1993
by Benny Bootle - 1983 & 1993 Historian

The Greenville Chapter of Region IV ASHRAE was chartered and began its operation during the 1963/64 fiscal year of ASHRAE.

This chapter is a spin-off from the South Carolina Chapter, which was originally chartered during the fiscal year of 1954/55.

Just for the record, the Charleston Chapter is a further spin-off of the South Carolina Chapter and received its charter during fiscal year 1971/72.

The members of the Greenville Chapter, who were originally members of the South Carolina Chapter met as a part of the South Carolina Chapter from 1954/55 through 1962/63.

During the initial stages of the South Carolina Chapter, the meetings would be held as follows: Columbia - Greenville - Columbia - Spartanburg - Columbia - Greenville - Columbia - Charleston. This gave four meetings per year in Columbia, two in Greenville, one in Spartanburg and one in Charleston. The meetings were on the third Monday night in September, October, November, January, February, March, April and May. It may be a coincidence, but both the South Carolina Chapter, who meets in Columbia and the Greenville Chapter, who meets in Greenville, still meet on the third Monday. (*Obviously this is no longer true. dc*)

Even though four of the eight meetings were held in Columbia, we were finding that by the early 60's there would be more people in attendance at a Columbia meeting from Greenville than there were from Columbia. A group of the Greenville members felt it would behoove both the Greenville and Columbia members for Greenville to file a petition to become a separate entity. The original petition consisted of 26+ names of the Greenville area and the chapter was originally chartered to start serving as the Greenville Chapter during fiscal year 1963/64.

It is interesting to note that the following Greenville Chapter members served as President of the South Carolina Chapter prior to the Greenville Chapter being formed and they are as follows:

1955/56	R.K. Rouse (<i>Deceased</i>)
1957/58	B.A. Leppard (<i>Deceased</i>)

1958/59	H.J. Haar (Deceased)
1960/61	T.O. Curlee, Jr. (Deceased)
1962/63	H.R. King

It is interesting to note that during the early years and up until the early 60's, the interstate system had not been completed. I can recall several trips in which four or five of the Greenville/ Spartanburg members would depart about noon on the third Monday of the month (once per year) to attend a Charleston Chapter meeting i.e. the Fort Sumter Hotel on the Battery or Francis Marion Hotel on King Street (both of which do not exist anymore).

The Columbia meetings were held in downtown Columbia hotels, which also do not exist anymore.

The Spartanburg annual meeting was held at the Cleveland Hotel on Morgan Square, which does not exist anymore.

The two annual meetings in Greenville were held at the Ottara Hotel (the present site of the Hyatt Regency) and the Greenville Hotel and sometimes the Poinsett Hotel. None of the above exist in the form of a hotel even though two of the buildings are still standing. *(The renovated Poinsett Hotel is now back in business. dc)*

The Greenville Chapter, during its 1992/93 year, will be completing its 30th year as an ASHRAE chapter. The following is a list of the past and present chapter presidents.

1963/64	George Morgan
1964/65	Jas. E. Waldrep
1965/66	Jasper C. Boles
1966/67	Benny T. Bootle
1967/68	Jim McCarter
1968/69	Bob Allen (Pres.) Truman Ellison (Acting Pres.)
1969/70	Jack Slattery
1970/71	Tom MacFee
1971/72	C. Evans Putman
1972/73	Frank Durham
1973/74	Fred Mappus
1974/75	Balus Chastain
1975/76	Dave Beeson
1976/77	Al Wills
1977/78	Forney Lowe (Res.) Al Wills (Acting Pres.)
1978/79	Ed Evans
1979/80	Ron Miller

1980/81	Bill Chisholm
1981/82	Chris Bueker
1982/83	David Scadlock
1983/84	Ray Chandler
1984/85	Chip Allison
1985/86	Porter Huskey
1986/87	Jon McKnight
1987/88	Forney Lowe
1988/89	Fred Stansell
1989/90	T, Minh Tran
1990/91	Ted Garrett
1991/92	Carrol Suttles
1992/93	Steve Ernest

The two listed as acting president filled slots for two former chapter presidents, who were transferred during their year.

The Greenville Chapter boundaries initially included some counties in the Northeast area of the state that were transferred to the S. Piedmont Chapter and a group of counties in Western North Carolina were, in turn, transferred to the Greenville Chapter.

The Greenville Chapter served as the host Chapter for the Region IV CRC during the years 1967/68, 1982/83 and 1990/91.

It should be noted that Region IV encompassed North Carolina, South Carolina, Georgia, Florida and Puerto Rico with up to sixteen (16) chapters prior to Regional Reorganization. The current Region IV, as of this writing, consists of three chapters in North Carolina, three in South Carolina and one in the State of Georgia (a total of seven). *(Still accurate in 2013. dc)*

The Greenville Chapter, as previously noted, meets on the third Monday, eight times a year, at The Holiday Inn on U.S. #25. They have met at this location for several years. They have met during the thirty year period at other locations such as the Colonial Court, Wade Hampton Blvd., Charcoal Steak House, U.S. #25 and Ye Olde Fire- place, 291 Bypass (South Pleasantburg Drive) and the Thunderbird Inn on 291 Bypass. The current meal price for the year is \$12.00 for a buffet. *(See follow up article for subsequent meeting locations. dc)* The writer *(Benny Bootle)* can remember meeting at Ye Olde Fireplace when steak was served family style (all you could eat) for \$3.50, i.e. this was when membership dues were \$2.00 annually and Society dues were in the \$20.00 range. You could also fly round trip to a Winter ASHRAE Exposition in Chicago or Philadelphia in the early days for less than \$100.00 complete with at least nine (9) stops in a DC3.

During the thirty year period, we find that from the original 26 who signed the petition, we are now assigned some 238+ area members. *(The Greenville Chapter currently has 206 area assigned members. dc)*

Since the inception of the Presidential Award of Excellence, the Greenville Chapter has received the PAOE fifteen times, plus a Star Award three times and a Special Citation Award two times.

During this period (1963 to 1993), Region IV, of which Greenville is a part, has provided the Society with three Presidents, namely David Rickelton, Jack Chaddock and Barney Burroughs. The Greenville Chapter has provided the Region with three Regional Vice-Chairmen and one Regional Chairman plus alternate and member for the Society Nominating Committee plus Society Committee Members under Research Promotion, Meetings and Arrangements, Admissions and Advancements Refrigeration and Administrative Council Committee. All historical records, including the original charter, are maintained at 3 N. Kings Road, Greenville, South Carolina 29605. *(Unfortunately a significant number of historical documents have been misplaced. Those currently available are at H2L, 116 S. Pleasantburg Drive, Greenville. dc)*



Chapter Technology Transfer

It's Free! ASHRAE Free Resources

Did you know about all these great resources available on the ASHRAE website?

<https://www.ashrae.org/resources--publications/free-resources>

ASHRAExCHANGE



Providing an online platform for real-time information exchange for design, construction, operation and support of the built environment.

Free Software

ASHRAE: Service Life and Maintenance Cost Database

The purpose of this database is to provide current information on service life and maintenance costs of typical HVAC equipment. Engineers depend on accurate owning and operating data to make decisions involving the life cycle and functionality of buildings. However, lack of sufficient up-to-date data makes it difficult to provide a solid basis for those decisions. Previous efforts to collect data through traditional survey methods have produced less than acceptable results.

Back-of-the-Envelope Calculator

Free tool shows energy interactions in buildings. Energy consumption in buildings is a complicated set of interactions among building components. When it comes to understanding energy efficiency opportunities, it's useful to see how changing one component affects the whole. Energy engineers at the Energy Center of Wisconsin developed the Back-of-the-Envelope Calculator to provide greater initial insight into the energy usage and environmental impacts of a proposed commercial building project. The calculator is available for free download and lets you see real-time energy connections among building components, isolate the effects of a change to a single energy parameter or produce concept-level energy estimates. Not only can you see real-time energy connections, but you can calculate total CO₂ emissions for a building from both electricity and gas consumption. The recently upgraded Back-of-the-Envelope Calculator is more versatile as well. It can now be used to analyze multiple-story buildings, instead of just a single-story building.

CONTAM

The National Institute of Standards and Technology (NIST) recently announced that an enhanced version of its CONTAM indoor air quality modeling software is now available. CONTAM is the popular NIST tool that predicts airflows and contaminant concentrations in multizone building systems. CONTAM is based on a graphic interface that allows the user to draw floor plans on a "sketchpad" and employ "icons" to represent airflow paths, ventilation system components, and contaminant sources. CONTAM has been used by NIST and others around the world to study the indoor air quality impacts of heating, ventilation, and air-conditioning systems in single-family residential buildings, ventilation in large mechanically ventilated office buildings, radon entry and transport in large residential, office, and school buildings, and the design and analysis of smoke management systems.

Free software models hybrid geothermal systems

An easy-to-use, but sophisticated method of analyzing various hybrid geothermal configurations is one piece that has been missing from the world of geothermal analysis tools. This new HyGCHP (Hybrid ground coupled heat pump) modeling tool, fills a gap for engineers and designers by modeling hybrid systems that can lower the up-front costs of geothermal. The tool is based on a study by The Energy Center of Wisconsin with assistance from the University of Wisconsin Solar Energy Laboratory, funded by the U.S. Department of Energy, Alliant Energy, and Madison Gas and Electric.

The EPA Power Profiler

This tool will generate a report about the electricity you use. It takes about five minutes to run and will provide you with details about specific air emissions impacts associated with your electricity use (including average annual pounds of CO₂/MWh).

Technology Awards

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 1st, 2013.

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>



Myrna Dayan

Chapter Technologies Transfer Chair, Greenville Region IV

myrna@mail.ashrae.org

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	ASHRAE Greenville 50th Anniversary Party Greenville Hyatt 5pm-12am Featured Program: Climate Change	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
Thursday 02/13/2014	Ammonia Refrigeration Systems	Presenter: Doug Reindl, Ph.D Distinguished Lecturer
Thursday 03/13/2014	<i>Tentative</i> The Art and Science of Building Enclosure Commissioning	Presenter: Fiona Aldous
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:
 2nd Thursday of the Month
 11:30am – 1pm
 Wilkins Conference Center
 Roper Mountain Science Center