

APRIL  
2009 EDITION



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## **HAPPY 38<sup>TH</sup> ANNIVERSARY CHARLESTON CHAPTER!!** **CHARTERED APRIL 14, 1971**

# **“THE GEE CHEE”**

*THE OFFICIAL PUBLICATION OF THE REGION 4 CHARLESTON CHAPTER 113 AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR CONDITIONING ENGINEERS, INC.*

### **Happy 38<sup>th</sup> Anniversary!!**

As of this evening's meeting, April 14, 2009, the Charleston Chapter is 38 years old **to the day!** Our Chapter was chartered April 14, 1971. A brief history of your Chapter follows with a listing of those members who have served as President.

Congratulations!



**TONIGHT IS  
CHAPTER  
HISTORY NIGHT**

### **MEETING SCHEDULE**

**LOCATION: NORTH CHARLESTON  
RADISSON HOTEL**

**B.O.G MEETING: 5:00-5:30PM**

**“HAPPY HALF HOUR”: 5:30-6:00PM**

**TECH PROGRAM: 7:00-8:00PM**

**8:01.....SEE YOU NEXT MONTH!**

**COST: \$20 / PERSON + \$5 OPEN BAR**

### **THIS MONTH'S PRESENTATION BY:**

**ROBERT G. BAKER, CEO  
BBJ ENVIRONMENTAL SOLUTIONS**

### **This Month's Articles:**

- Happy Anniversary
- Presidential Message
- Chapter History
- Monthly Topic and Speaker
- The CTT Corner
- Member News
- Sponsorships and Investors
- The Wall of Honor
- Upcoming Events
- Get Involved

## **“ The Gee Chee”**

### **Presidential Message**

I just wanted everyone to know that Brian Keiser has jumped in with both feet and is doing a great job as secretary/news letter editor. I also wanted to remind all the officers to log into the ASHRAE website and update their PAOE points if necessary. The end of out year is looking really neat. This month we have a distinguished lecturer, talking Green Maintenance. Next month we have Rodney Hinton, who will tell us all the secrets of T & B companies. And finally in May we have our end of the year party. In addition, we have the always fun golf tournament at the end of April. Even though we have had quite a few struggles this year, I feel that we are a stronger chapter and we are finishing the year with a lot of excitement. Thanks to everybody for all the hard work and commitment. See you at the meeting on Tuesday.

Best Regards,

Rob Turner, P.E.  
Charleston Chapter President

### **Chapter History**

On September 10, 1894 the American Society of Heating and Ventilating Engineers (ASHVE) was established. On December 5, 1904 the American Society of Refrigeration Engineers (ASRE) was founded. In 1906 the term "Air Condition" was coined by a North Carolinian - Stuart Cramer. On January 29, 1959 ASRE and ASHAE merged to form the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE).

The Charleston Chapter of ASHRE was Chartered on April 14, 1971. Thirty – six members petitioned Society at that time. Of those original members, F.A. Bailey ('71), Clyde Poplin ('72), Tom Saunders ('73), Ivan Valdes ('74), Furman Cullum ('75), Bob Townsend ('76) and Mel Bundy ('79) served as Presidents of the Chapter. As of 2006, four Charter Members frequented meetings – Furman Cullum, Bob Townsend, George Rast, and Mel Bundy. The Chapter has a third generation member, Charles Hipp III, who served as President ('03). Today the current Charleston Chapter grew from the division of the South Carolina Chapter in Columbia SC and the Savannah Chapter in Savannah GA (now disestablished). The first Charleston Chapter President was F. A. Bailey III 1971 & 1972.

The Charleston Chapter has Charleston, SC (Charleston County) as its headquarters and encompasses the “Low Country” from the North Carolina/South Carolina line to and including Savannah GA. The Chapter nick name is the “Gee Chee” Chapter – a local pre-Civil War Gullah term.

Charleston Chapter has had the fortune to charter two sections and two student chapters, all currently active. The Student Chapter at the Savannah School of Art and Design, Savannah GA, was Chartered in 2003. The Student Chapter at College of Charleston, Charleston SC, was Chartered in 1993. The Myrtle Beach Section of ASHRAE, Myrtle Beach SC, was Chartered April 8, 1997. The Savannah Section of ASHRAE, Savannah GA, was Chartered April 7, 1995.

A gala 25<sup>th</sup> Anniversary Celebration of the Chapter was held April 8, 1997 on the deck of the U.S. Navy Aircraft Carrier, the U. S. Yorktown. The Charleston Chapter has maintained a "Historian Archive" since 1971 and at present it remains with the Historian.

ASHRAE's success as the world's leader in the HVAC & R industry is the direct result of leadership, continued involvement, unselfish volunteerism, and the dedication of all the society's membership including our Charleston Chapter.

## **“ The Gee Chee”**

### **ASHRAE Charleston Chapter** **Past Presidents Recognition** **April 14, 2009**

The Members of the Charleston Chapter salute all of our Past Presidents in appreciation for their unselfish service to the Chapter. A listing of those members who have served as President follows. Thank You!

#### Chapter Presidents Charleston Chapter of ASHRAE Chapter Chartered on April 14, 1971

1970-1971	F.A. Bailey, III (acting)
1971-1972	F.A. Bailey III
1972-1973	Clyde B. Poplin, Jr.
1973-1974	Thomas Saunders
1974-1975	Ivan S. Valdes
1975-1976	Furman R. Cullum
1976-1977	Robert Townsend
1977-1978	George B. Rast
1978-1979	R. Al. Jones
1979-1980	Melvin D. Bundy
1981-1982	John C. Powell
1982-1983	John C. Clayton
1983-1984	James M. Bailey
1984-1985	Bill Strunk
1985-1986	Dave Astle
1986-1987	Danny McKay
1987-1988	Edgar A. Fripp
1988-1989	M. Dennis Knight
1989-1990	Larry Michel
1990-1991	F. Joseph Fisher
1991-1992	Brandt Williams
1992-1993	Dave Phelps
1993-1994	Rudy Cullum
1994-1995	Bill Knight
1995-1996	Ron Runyon
1996-1997	Ron Runyon
1997-1998	Don Tate
1998-1999	Dick Trent
1999-2000	Michael Weeks
2000-2001	M. Dennis Knight
2001-2002	David Tomayko
2002-2003	Steve Marek
2003-2004	Charles Hipp III
2004-2005	Chris Crane
2005-2006	Bo Nutting
2006-2007	Bo Nutting
2007-2008	Phil Garc'es
2008-	Rob Turner

## “ The Gee Chee”

### Monthly Topic and Speaker

This month's topic is “Green maintenance needed to KEEP HVAC Green” presented by Mr. Robert Baker, ASHRAE Distinguished Lecturer.



#### Green Maintenance Needed to Keep HVAC Systems Green

We are expending considerable effort to assure that today's HVAC systems operate efficiently, provide an optimal indoor environment and support our overall goals of environmental responsibility and sustainability. This talk demonstrates the importance of a strong maintenance program to assuring that these “green” systems continue to provide the performance that was the design objective. This talk is filled with real world examples of both successful and lacking maintenance approaches and techniques. It illustrates both the cost and rewards associated with various levels of maintenance.

#### Mr. Robert Baker's Bio:

Mr. Baker is CEO of BBJ Environmental Solutions which manufactures a wide assortment of cleaning and antimicrobial products that improve the hygiene of building interiors, prevent growth and amplification of harmful organisms and help to maintain energy and heat transfer efficiency of Heating Ventilation and Air-conditioning (HVAC) Systems. Mr. Baker also consults with building owners and their service providers on maintenance strategy and management. He has over 25 years of experience in all facets of building operation and maintenance and provides training, building operational support, expert witness and prepares technical reports on both HVAC maintenance and energy efficiency. Bob works throughout the Americas and Asia.

He is an enthusiastic contributor to our industry through several organizations. He is past President of the Indoor Air Quality Association (IAQA). He sits on four ASHRAE Standards and Technical Committees, has written numerous papers & articles and is a regular ASHRAE presenter. He is chair of the ASHRAE/ACCA HVAC Inspection and Maintenance Standards Project Committee (SSPC180) and the Indoor Air Quality committee of the Consumer Specialty Products Association (CSPA). He previously chaired the IICRC S 520 Standard Committee and served on the HVAC Hygiene Standards committees of both ACCA and NADCA. He has been awarded the ASHRAE Distinguished Service Award and is a member of the ASHRAE Standards Committee.

An avid researcher, Bob holds both product and method patents in HVAC/R system cleaning technology and received the IAQA award for product technology for the year 2001. His current research interest is the impact of maintenance of HVAC systems on air quality, system life and energy efficiency.

Bob's undergraduate degree is from Oklahoma State University with an MBA through the Gulf Oil program at Harvard University.

## **“ The Gee Chee”**

### **The CTT Corner**

At our April meeting our own Dennis Knight, a LEED Accredited Professional, gave an outstanding presentation: “Modeling Reality in the Built Environment.” Dennis gave us an oversight on a huge amount of material regarding simulation and LEED certification for buildings.

Dennis told us that the Charleston Chapter outperforms most of the world and all attendees at the national conferences recognize the Charleston Chapter. The software available includes Trane Trace, Carrier HAP, and eQUEST.

Dennis covered the four compliance paths available for credit points.

Option 1 was covered last. It is the best option and was covered in the most detail.

Option 4: Advanced Buildings Benchmark Version 1.1

May not be used if the project is registered after June 26, 2007. Must fully comply with all criteria for the applicable climate zone.

Option 3: Advanced Buildings Core Performance Guide.

Building must be less than 100,000 SF. Not allowed for health care, warehouses, or laboratories. Complete compliance required for Section 1 (Design Process Strategies) and Section 2 (Core Performance Requirements)

Option 2: ASHRAE Advanced Energy Design Guide.

Building must be less than 20,000 SF, must be office occupancy, and must fully comply with all criteria for the applicable climate zone.

Option 1: Whole building simulation.

Get used to this and you won't have to bother with the prescriptive requirements of the other options. This must be performed in accordance with appendix G of ASHRAE 90.1. The performance rating method (PRM) is used to demonstrate performance beyond ASHRAE 90.1-2004. The energy cost budget (ECB) is used only to demonstrate compliance with ASHRAE 90.1-2004. The state and schools require ECB to demonstrate compliance with ASHRAE 90.1-2004.

PRM includes the total energy consumption for all end uses.

PRM gives credit for favorable building orientation. This is not required by code but helps with LEED points. Credit is given for Automatic shade opening and closing; occupancy sensors; photovoltaic systems; energy efficient fan systems and natural ventilation. LEED allows PRM to demonstrate compliance with ASHRAE 90.1-2004. Code officials do not accept PRM as proof of compliance with ASHRAE 90.1-2004.

ECB is focused on minimum code compliance. PRM is flexible, comprehensive, and offers more credit for different strategies.

Although energy modeling is useful it does not guarantee how many points will be awarded by LEED officials nor does it guarantee what the building energy bill will be. You can't guarantee the level of certification until you actually get the certificate.

Four building orientations must be simulated and averaged. Then the simulation must be run with the actual proposed orientation.

The simulation must be done with a program approved by the Department of Energy.

The US Green Buildings Council (USGBC) will submit questions to the designer. If the replies do not adequately answer the questions, the USGBC will charge for the additional effort to get an adequate explanation.

A building owner in Hong Kong bought software and set up an office for the team to work with BIM. This resulted in a savings of 30 million dollars.

Automated Code Compliance checking is available for ASHRAE 90.1. A program is being developed for IBC chapter 10 (Egress).

## **“ The Gee Chee”**

Clash detection is available (Project Navigator). This can be used if the project is designed in 3D. Hard clash indicates that objects run into each other. Soft clash, for example, indicates that an electric panel is too close to a water source.

At a GM plant 4,000 clashes were detected saving millions of dollars in change orders. Some designers get everybody into a hotel room for a week and establish major duct routes, etc to minimize problems which will later be found by clash detection.

### **Member News**

If you have recently moved to the Charleston area and wish to transfer your membership, please contact our Membership Chair, **Charles Hipp**, or make the change online at [www.ashrae.org](http://www.ashrae.org).

### **Sponsorships and Investors**

#### **2008-2009 ASHRAE RESEARCH INVESTORS**

The Chapman Company  
James M. Pleasants Co.  
Triad Mechanical  
Smith & Vandenbulck  
Santee Cooper  
Epting Distributors



### **The Wall of Honor**

#### **Individual Donations of \$100.00 or More**

Rob Turner  
Steve Marek  
Ron Runyon  
Dr. Emad Afifi  
Lee Abernathy  
Jim Auten

Dennis Knight  
Randy Jones  
Dave Tomayko  
Dan Cartin  
Pete Conroy  
Louis Schweers



Much of ASHRAE Research funding comes in through individual donations, so please give.

**CAN WE PUT YOUR NAME HERE?**

## “ The Gee Chee”

### Upcoming Events

- **CHARLESTON CHAPTER’S  
“SPRING RESEARCH PROMOTION”  
GOLF TOURNAMENT**

FRIDAY , May 1, 2009  
1:00 PM  
CHARLESTON NATIONAL  
MT. PLEASANT, S.C.

\$75.00 includes GOLF, CART, BOX LUNCH,  
BEVERAGES, and PRIZES!!!!  
Raffle contest for CASH PRIZE.



- **CRC 2009 IS COMING TO THE FLORIDA WEST COAST CHAPTER!**

This August, the FWC Chapter will be hosting the Chapters Region Conference for two regions – Region IV and XII. This will be quite the event. ASHRAE members and Society dignitaries will come from all over Florida, Georgia, North Carolina, South Carolina, Puerto Rico, Argentina, Brazil and other areas of Central and South America.

CRC 2009 will take place **August 6-8, 2009**, but our local chapter will be hosting events throughout the week including fishing charter, golf scramble, technical seminars and much more. The conference will be held at the Tradewinds Beach Resort in lovely St. Pete Beach.

If you are interested in volunteering and being part of the fun, we welcome you. Please feel free to contact me at 813-731-2203 ([jisenbec@admin.usf.edu](mailto:jisenbec@admin.usf.edu)) for more details.

We are also looking for sponsorships. This will be an ideal opportunity to get your name out to over 200 ASHRAE participants! Please contact Debie Horsey 813-748-9406 ([dhorsey@carrollair.com](mailto:dhorsey@carrollair.com)) if you are interested. [ashraecrc2009-region4-12.org](http://ashraecrc2009-region4-12.org)

- **ASHRAE TECHNOLOGY AWARDS**

All submission must be submitted to Gene Brown. Please see Gene for details on submission requirements and deadlines.

- **ASHRAE SATELLITE BROADCAST/WEBCAST**

**“CLEAN, LEAN, AND GREEN, IAQ FOR SUSTAINABLE BUILDINGS”**

April 22, 2009  
1:00 – 4:00PM edt.

Log onto [www.ASHRAE.org](http://www.ASHRAE.org) to register.

- **ASHRAE CHAPTER MEETINGS:**

#### MAY

Tuesday, May 12, 2008

“Test and Balance Procedures and tactics, Rodney Hinton, Palmetto Air Balance”  
**Student Activities Emphasis Night**

#### JUNE

DATE AND LOCATION OF CHAPTER SOCIAL TBD

# “ The Gee Chee”

## GET INVOLVED

CONTACT ONE OF OUR COMMITTEE CHAIRS TO SEE HOW YOU CAN MAKE A DIFFERENCE

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