



Giga-Joule

Greenville
Chapter of
ASHRAE

May 2005

Meeting Announcement

For May we have a meeting and a Clean Room Seminar on Tuesday, May 17th at the Roper Mountain Science Center. Your options are to join us for the full seminar or just for the program. The details are listed on the Programs Page. We are offering a discount for pre-registration so don't let the RSVP date slip up on you. For more information, please contact Programs Chairman, James Bryan, by phone at 864-298-2148, email at programs@ashrae4greenville.com

New Officers and Chairmen for 2005-2006

OFFICERS

President: James Bryan
President-Elect: Eric Scott
Treasurer: Devon Cortright
Secretary: Scott Houston
Historian: Paul Jensen
Governor: Karl Counts
Governor: Mark Schnetzka

CHAIRMEN

Programs: Eric Scott
Membership: Carol Suttles
Resource Promotion: Dennis O'Keefe
Chapter Tech Transfer: Jamie Porterfield
Newsletter Editor: Scott Houston
Webmaster: Karl Counts

A Message from the President

Karl Counts PE
Greenville
Chapter President



We are down to our last meeting of the ASHRAE 2004-2005 year. Your Greenville Chapter has really been strong this year and Programs Chairman, James Bryan, has done a fantastic job of lining up programs for you. When this year ends we will have heard from four ASHRAE Distinguished Lecturers, and two building inspectors. The Greenville Chapter will have sponsored two three-hour seminars, two facility tours, along with our normal slate of nine monthly meeting programs. I don't know if the Chapter has ever had so much activity before.

All of this couldn't happen without a stellar supporting cast. All of your officers and chairmen have really performed well this year and I hope you, our members, notice the fine results. If you have noticed and would like to be a more involved please contact me. Your officers and I have had a great time leading the Chapter this year and we want to let more of you share in the fun. Another great way to help out is to go out and Play Golf. Yes, I said go golfing. Get in touch with Dennis O'Keefe and support ASHRAE at Pebble Creek on May 6th. If you can spare it, pitch in buy sponsoring a hole, too.

If you have any questions or comments, please feel free to contact me.

Karl F Counts PE
Greenville ASHRAE President
president@ashrae4greenville.com

Chapter Programs

We had two good meetings in April relating to mold: the ASHRAE satellite broadcast and our regular chapter meeting follow-up presentation. I would like to thank Trane for stepping in and hosting the satellite broadcast. Also I would like to thank Len Damiano of Ebtron for his Moisture, Mold and Building Pressurization seminar with an average rating of 91.5.



A supplemental Giga-Joule will come out after our May meeting to provide more detail regarding our chapter hosting the annual Region IV Chapter Regional Conference (CRC) at the Embassy Suites on August 18, 19 and 20. Mark your calendars! We will have a golf tournament as well as the opportunity to earn 6 PDHs. Please RSVP as today!

**Speaker: ASHRAE Distinguished Lecturer, MANUEL A. DEL VALLE, P.E.
Director HVAC Design - Fluor Daniel, Greenville, South Carolina**

Manuel A. del Valle has 37 years of experience in HVAC design, specializing in pharmaceutical and biotech facilities in the United States 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 is currently 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 publication such as Pharmaceutical Engineering; Biopharm, Heating, Piping, & Air Conditioning; and CleanRooms Magazine.

Program 1: ISO 14644 and Its Relation to USA & EC GMPs for Aseptic Processing Facilities

- Describes the regulations that categorize cleanrooms (Old Fed. Std 209 and New ISO 14644)
- Shows USA and EC regulations that describe what type of and where cleanrooms are required and the acceptable viable particle counts for aseptic processing facilities
- Provide comparison table among ISO 14644 and USA & EC GMPs
- Covers 2003 European updates and 2003 USA draft updates to the guides for aseptic processing facilities
- Shows examples of AHU Boundary Line drawings, cleanroom classification drawings, air pressurization drawings, and Design Criteria drawings for Pharm/Bio Facilities

Program 2: Cleanrooms for Pharmaceutical /Biotech Facilities

- Defines "Cleanrooms" per ISO-14644-1
- Breaks down the definition and explains its components, such as exterior and interior sources of contamination
- Provides examples on how to remove particulate from cleanrooms
- Provides definition of terms typically used in cleanrooms for Pharm/Bio Facilities

Program 3: Airlocks for Pharm/Bio Facilities

- Presentation describes the need for airlocks in Pharm/Bio Facilities and the 4 types: Cascade/Pressure, Bubble/Pressure, Sink/Potent Compound Airlock
- Advantages and disadvantages of each type of airlock are described and where each is used in Pharm/Bio Facilities
- Mentions construction features of Cleanrooms
- Describes clean air classification of airlocks and recommended air changes per hour
- Provides air distribution schemes for airlocks
- Gives example of CFM calculations for pressurization of cleanrooms.
- Describes various means of controlling temperature and pressure in airlocks
- Describes air balancing for airlocks

Program 4: HVAC Systems for Pharm/Bio Facilities

- Shows typical flow diagrams of HVAC systems for class 100 and 10,000 (and less clean) Cleanrooms for Pharm/Bio Facilities
- Describes components of systems, such as AHUs, filters, and air distribution devices.
- Provides examples of layouts of MERs and catwalks to access reheat coils, dampers, and other accessories

Location: Roper Mountain Science Center - Auditorium
(See front page for directions)

Date: Wednesday, April 13, 2005

Schedule:	8:00 to 8:15 a.m.	Doors Open
	8:15 to 11:30 a.m.	Programs 1-3
	11:30 to 11:50 a.m.	Lunch served & lunch meeting participants arrive
	11:50 to 12:00 p.m.	Chapter business
	12:00 to 1:00 p.m.	Program 4

Cost: \$30/person at the door (includes a catered lunch) Guests are welcome!
\$25/person if check received by Friday May 13th

Education: The complete program qualifies for 4.0 PDHs

James Bryan PE,
Programs Chairman

Please RSVP to programs@ashrae4greenville.com no later than Thursday, May 12, 2005.
Receive discount if check received by Friday, May 13th. Make out your checks to:

ASHRAE – Greenville Chapter
c/o James Bryan
PO Box 10269
Greenville, SC 29603-0269

Membership Corner

GREAT NEWS! Our number of new members for this year is up to 12 and is a result of you promoting ASHRAE Membership. New members for this year include Jeff Caviness, Shawn Gilstorf, Matthew Brooks, William Reynolds, Ronald Cole, Frank Bridges, Jeff Vestal, Michael Wienold, Jeff Lindsey, Lawrence Pittman, Jeremy Galloway, and Robert Foldes.

Attendees at the "Mold in the Building Environment" Satellite Broadcast on April 13, 2005 were Joe McCarty, Barry Jones, Dennis O'Keefe, Joe Cain, Bill Knight, Warren Maddox, Robert Monaghan, Steve Abernathy, Karl F. Counts, W. Jeff Mitchell, Caroll Suttles, James Bryan, Walter Tuttle, Bill Reynolds, Shane Bulman, Eric Scott, Jeremy Galloway, Steve Bloomquist, Craig Dewitt, James T. McCarter, Robert L. Carter, John Bindewald, John McNamara, Phil Bisesi, Chris Jordan, Bill Sykes, Greg Crusco, Devon Cortright, Paul Jensen and Jay Hannah.

Attendees at the Chapter Meeting on April 19, 2005 were Lee Capps, Karl Counts, Jeff Vestal, Jamie Fry, Jeff Pope, Robert Simpson, Skip Lewis, John Adams, John McNamara, James Bryan, Curtis Hall, Jay McCutcheon, Rodney Hinton, Caroll Suttles, Bill Neal, , Bill Lenker, Devon Cortright, John Bindewald, Karl Grizio, Chip Allison, Mark Rosenfeld, Mark Schnetzka, Greg Kyser, Warren Maddox and Dennis O'Keefe.

Applications can be obtained at our regular meetings or call me at (864) 233-7966.

Caroll Suttles Membership Chairman

Technology, Energy, & Government Activities

Technology Awards

Know of an innovative project that may be award worthy? If so, submit it for an ASHRAE Technology Award. Contact me or visit: <http://www.ashrae.org/standcom/tegaward.htm> for forms and more information. Then proceed as follows:

- Complete the "Short Form" and use it as the cover page.
- Provide a system schematic/diagram not larger than 11" x 17" in size. In addition, attach a brief narrative (maximum of 2 pages). The narrative should include the gross and net building areas applicable to the project, a description of the major building areas (i.e., operating rooms, laboratories, computer rooms, industrial processes, offices, warehouses) and a brief discussion regarding the following five criteria (if a criterion is not applicable, state accordingly):
 - Energy Efficiency
 - Indoor Air Quality
 - Innovation
 - Operation & Maintenance
 - Cost Effectiveness
- Submit your schematic, brief narrative, and completed form to me for judging at the Chapter level.

Applicants will receive recognition and have the chance to advance to Regional & Society level competition.

Jamie Porterfield CTT (Chapter Technology Transfer) Chairman

Resource Promotion

The next fundraiser for ASHRAE Resource Promotion will be our Spring Golf Outing. We've decided to hold the event at the Pebble Creek Country Club in Greenville. Date hasn't been determined yet, but in keeping with past traditions, it will be held during the first week in May. This will be a major fundraising effort and I'm hoping to fill up the course with hole sponsors. Please don't wait for me to call you. If you or your company can sponsor the event let me know and keep early May open!



Date: May 6th, 2005, 8:30 AM

Location: Pebble Creek Country Club, Greenville.

Information: <http://www.pebblecreek-club.com/>

(864) 244-8872

The excitement is growing! The event you've all been waiting for, the Annual ASHRAE Greenville Chapter Spring Golf Outing is only about 4 weeks away! We've decided to hold the event at the Pebble Creek Club in Taylors, SC on Friday, May 6th at 8:30 am. \$60 fee includes range balls, greens fees, cart, lunch, beverages and all the fellowship you can stand! Driving range and registration desk to open at 7:30 am. A \$50 gift certificate will be given for the 1st place team, closest to the pin, and longest drive. This will be a major fundraising effort so I'm counting on our proud sponsors to fill up the course with sponsorship signs. Special thanks to Hahn Mason Air Systems, Knauf Insulation, GmbH, and Waldrop Heating & Air Conditioning for already committing/paid for hole sponsors. Please make sponsorship checks out directly to ASHRAE Resource Promotion. If you or your company can sponsor the event let me know.

Once again, I'm listing Corporate Sponsors to the Greenville Chapter for the last 5 years. I would ask that the membership help support those contractors, architects, engineers and vendors, past and present, which have supported Resource Promotion, by making your purchases through them. It would be great if all these companies were spring golf outing sponsors – Hahn Mason, Knauf and Waldrop already are, how about you?

Accuflo Services Incorporated
Carrier Building Systems & Services
Carrier Corporation
The Copy Spot, Inc.
Devita & Associates, Inc.
Duke Energy Corporation
Duke Power Co.
Energy Engineering, Inc.
Hahn Mason Air Systems
Hefco LLC
Invesys Building Systems
James M. Pleasants Co.
Johnson Controls Inc.
Trane
United Engineering Group
York International

Marshall Clarke Architects, Inc.
Leblanc Welch Inc.
Miller Engineering Inc.
Palmetto Air & Water Balance, Inc.
Peritus Engineers & Associates, Inc.
Leblanc Welch Inc.
Miller Engineering Inc.
Palmetto Air & Water Balance, Inc.
Peritus Engineers & Associates, Inc.
Piedmont Natural Gas
R. L. Kunz, Inc.
Sanders Brothers, Inc.
Sonopress
Waldrop Heating & Air Conditioning
Wade Crow Engineering

Individual sponsors for this year's 2004–2005 Resource Promotion campaign include:

Mr. Phillip W. Scoggins
Mr. Patrick R Leake
Mr. Robert W. Wiggins, Jr.
Mr. Karl Counts
Mr. Edwin W Evans

Mr. Robert Speer
Mr. Paul E. Jensen
Mr. William D. Knight, Jr.
Mr. Dennis O'Keefe
Mr. James E. Reeves, Jr.

If anyone has any ideas on fundraising events that we could apply to this Chapter please see me after the meeting. Thanks!

Dennis O'Keefe
Resource Promotion Committee Chairman

Technical Issues

Results of the International Code Hearing in Cincinnati

The proposed changes to the International Building Code and the results of the hearings held in Cincinnati, Ohio February 22 through March 4 are available on the International Building Code Council website [<http://www.iccsafe.org/cs/codes/2004-05cycle/index.html>]. I have perused the results of the hearings and made the observations below on a small portion of the proposals. The proposed changes that were approved in Cincinnati still have another hurdle to pass with the Final Action Hearings that occur September 28 through October 2, 2005. Written comments on the public hearings must be submitted by June 16. Forms for submitting public comments are available through a link on the above referenced website. The proposed changes that are approved during the Final Action Hearings will be incorporated in the 2006 edition of the building codes.

The two proposed changes allowing ASHRAE Standard 62 to be used for determining ventilation requirements were denied. There are comments from the review committee that allow ASHRAE Standard 62 to be submitted to the local authority under alternate means and methods. The proposal to allow auditoriums, music rooms, and classrooms to use 7.5 CFM per person for outside ventilation was also denied.

Approved were proposed revisions to sections 1305.2.3 and 1305.1.4 to require easier equipment access for attic and under floor installations.

A proposal was approved to revise Table 403.3 to increase the outside air ventilation rate in nail salons.

The mechanical committee also approved a change requiring clothes dryer exhaust to be at least 10 feet from an air-conditioning condensing unit, however; the residential committee denied the same change. Looks like some negotiating is in order.

It appears that the allowable length of dryer duct will increase from the current 25 feet to 35 feet. (504.6.1)

Also approved was a revision requiring Type I kitchen exhaust hoods (grease exhaust) to be interlocked with the cooking equipment such the exhaust fans will automatically start when the cooking equipment is activated. (507.2.1.1)

Have you checked the ICC website for errata? They make mistakes and publish corrections on the website. I suggest that you check the website about once every 6 months, print the results and put them in the front of your code books.

Devon Cortright PE
Treasurer

Greenville Chapter ASHRAE

2004-2005 Chapter Officers

Office	Officer	Company	Phone	Fax	email
President	Karl Counts	Day & Zimmermann	241-8335	241-6750	president@ashrae4greenville.com
Programs/ VP	James Bryan	O'Neal, Inc.	298-2148	298-6330	programs@ashrae4greenville.com
Secretary	Karl Counts	Day & Zimmermann	241-8335	241-6750	president@ashrae4greenville.com
Treasurer	Devon Cortright	H2L	233-8844	232-2679	dcortright@h2l.com
Membership	Caroll Suttles	Piedmont Natural Gas	235-5844 x3055	233-6104	membership@ashrae4greenville.com
Resource Prom.	Dennis O'Keefe	Piedmont Natural Gas	250-2822	250-0585	resourceprom@ashrae4greenville.com
CTT	Jamie Porterfield	Waldrop Heating & Air	578-7252		ctt@ashrae4greenville.com
Historian	Steve Abernathy	Piedmont Natural Gas	235-5844 x3054	233-6104	history@ashrae4greenville.com
Webmaster	Karl Counts	Day & Zimmermann	241-8335	241-6750	president@ashrae4greenville.com

Tentative Meeting Dates for 2004-2005

Mon 9/27/2004	Constant Volume Zoning Applications and Design	Jeff Swiderski, Carrier Controls
Tues 10/19/2004	Water-Cooled Vert. Self-Contained DX Applications Facility Tour: Poinsett Plaza (by Doug Black)	Paul Jensen, Trane Company
Tues 11/23/2004	10 Important Changes to the 2003 IMC	Tony Longino, Chief Mechanical Inspector
Tues 12/14/2003	Is It Raining In Your Boiler?	Chris Edmondson PE, James M Pleasants
Tues 1/18/2004	Application of ASHRAE Standard 15	Tom Watson PE, McQuay International
Tues 2/15/2004	HVAC Insulation, One Key to a Healthy Building	Glenn Brower, Knauf Insulation
Tues 3/8/2004	Joint Meeting with Mechanical Contractors Asso.	Frank Wilson, Bldg Codes Inspector
Tues 3/15/2004	Ammonia Refrigeration Design and Application	Kyle Herman, Sara Lee (w/Facility Tour)
Wed 4/13/2004	ASHRAE Satellite Broadcast on Mold	ASHRAE
Tues 4/19/2004	Presurization for Mold Prevention	Len Damiano, Ebtron
Tues 5/17/2004	Cleanrooms for Pharmaceutical/Biological Facilities	Manuel Del Valle PE, Fluor

Greenville Chapter of ASHRAE



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Technology for a Better Environment