

Philadelphia Chapter

Thursday, March 12, 2009

Volume 44, No. 7 March 2009

Table Top Vendor Night

"Filtration for High Performance Buildings"

presented by

Brian Monk, PE
ASHRAE Distinguished Lecturer
Carrier Corporation

4:00 pm Tabletop Show

> 5:00pm Social Hour

> > 6:00 pm Dinner

6:30 pm Presentation

Free parking available on site

FOR RESERVATIONS

All attendees should register online through Cvent.

To register please vist our NEW web site at http://phila.ashraechapters.org/

LOCATION

Fisher's Tudor house 1858 Street Rd. Bensalem, PA. 19020 (215) 244-9777

For more information and directions Visithttp://www.fisherstudor.com/

RESERVATION NOTICE

Reservations must be made no later than 5:00 pm on Wednesday, March 11, 2009.

COST

Philadelphia Chapter Members with online reservation and prepayment \$30

ASHRAE Members who have not paid Philadelphia Chapter dues with online reservation and prepayment \$35

Non-Members with online reservation and prepayment \$40

Young Engineers with online reservation and prepayment \$20

Students with online reservation Free

Phone reservations to 610-971-2169 without online registration \$45

Walk up fees (based on availability) \$45

IOURNAL OF THE PHILADELPHIA CHAPTER OF THE AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS, INC CLIMATE **Juaker**

From Our President

I want to thank all the members who were able to attend our February dinner meeting with Mark Alan Hughes who is the Director of Sustainability for the City of Philadelphia. It was very informative to have a member of Mayor Nutter's cabinet give us insight on the direction of city planning. The presentation is available on our chapter website for those who couldn't make it.

This month we have our annual table top vendor show followed by a presentation on Filtration for High Performance Buildings We are honored to have, as our keynote speaker, Brian Monk, an ASHRAE Distinguished Lecturer. I hope you plan to join us at Fisher's Tudor House on the second Thursday in March.

Next month will be our physical plant tour of Urban Outfitters at the Philadelphia Naval Business Center followed by dinner.

Finally, I am looking for feedback from members on how we can improve our chapter and Society. Every year in August there is a regional meeting. There your chapter representatives can present any ideas that may improve society. The regional meeting will be held in Washington DC this year, hosted by the National Capitol chapter. The dates are August 13, 14 and 15. Philadelphia Chapter members are welcome to attend the technical conferences offered and any social events which may be planned. If you want to attend or just have some idea you think may help all ASHRAE members please let me know.

Jeff Gilbeaux

Jeff Gilbeaux, PE jeff@gilbeauxassociates.com 856-988-1890

March Speaker Biography

Brian Monk, P.Eng. is Manager, Sales / Marketing, at Carrier Corporation, Montreal, Canada, for RACAN Custom Air Handling Division. From 1998 to 2006, Mr. Monk was the Vice-President of Sales / Marketing for Dectron International Inc., specializing in the manufacturing of dehumidification / filtration systems for commercial and industrial environments. His primary responsibilities were to establish and maintain a sales distribution network throughout the Americas', Middle East and Europe. Previously, Mr. Monk was the Director of Engineering for Circul-Aire Inc., and had spent 10 years in the application and design of air filtration and energy recovery systems, for the building construction industry. His academic background comprises of a college degree in Applied Science (Building Systems Engineering Technology) from Vanier College of Montreal and a Bachelor of Building Engineering from Concordia University of Montreal. He is a Registered Professional Engineer with the Province of Quebec, Canada, and the Association of Professional Engineers and Geoscientists of British Columbia, Canada. Affiliations include AEE (Association of Energy Engineers), ASME (American Society of Mechanical Engineers), and ASHRAE (American Society of Heating, Refrigeration and Air Conditioning Engineers).

Mr. Monk is an ASHRAE Distinguished Lecturer, Member of Committee TC 2.3 Gaseous Air Contaminant Removal Equipment, and TG Blast, Chemical and Biological Remediation. He is also Part-Time Professor at Concordia University, Montreal, Canada, in the Faculty of Building, Civil and Environmental Engineering.

the "underclass" during the late 1980s: William Julius Wilson

March Speaker Topic

ANSI/ASHRAE Standard 62.1-2004, in its current form, employs two procedures to provide acceptable indoor air quality (IAQ) in buildings. These are the Ventilation Rate and Indoor Air Quality (IAQ) Procedures. This standard further endeavors to achieve the necessary balance between IAQ and energy consumption by specifying minimum ventilation rates and IAQ that will be acceptable to human occupants. Air Handling Unit design requires that proper selection of air filters be considered to not only maintain adequate IAQ, but minimize static pressure drop and therefore AHU operations cost.

Nationwide, HVAC designers have recently included more outside air, up to 60 cfm/person, to meet IAQ concerns through dilution. Complicating the dilution strategy are ASHRAE 90.1 guidelines calling for higher efficiency in building design. Recently, the use of outside air has taken on a more serious element, as designers are asked to protect buildings from potential "extraordinary circumstances" that could come in the form of chemical or biological contaminant released close to a building air intake system.

Learning Objectives:

- 1.Outline specific sections of ASHRAE Standard 62.1 as it applies to building filtration.
- 2.Identify various AHU design strategies that can comply with ASHRAE 90.1 as it pertains to building filtration.
- 3.Review the predominant filtration technologies that can be incorporated into central station AHU's to minimize Particulate, Chemical and Biological contaminants.
- 4. Evaluate methods of reducing life-cycle cost without sacrificing adequate air purification.
- 5.Explore air cleaning methods that compliment dilution and can serve as a means of saving energy and protecting the occupied space.

Students Visit Expo in Chicago

We would like to take the time to thank our chapter members for funding three of our student member's trip to the winter conference in Chicago. The students had a busy schedule attending several seminars designed for students. At the conclusion of the conference the students attended a meeting where each school had a chance to bring comments from their respective student branches. The Philadelphia area was well represented due to our chapters support. Representing Drexel University was Zach Smith, Temple University was Daniel Best, and Widener University was Marc Melchiorre. We would also like to express our appreciation for Gary Debes who personally introduced the students to (3) past presidents, the current president, the president elect, several members of the board and several of headquarters staff members. The students were truly taken in by the magnitude of the trip and will have great memories to share with their respective schools.



From left to right – Marc Melchiorre, Zach Smith, Terry Townsend, Dan Best.

PHILADELPHIA CHAPTER ASHRAE 2008 - 2009 PROGRAMS

For reservations and updates, check http://phila.ashraechapters.org/

Date	Location	Dinner Topic	Theme	Joint Meeting
Thurs Feb 5	Dave & Buster's	Philadephia's Green Initiative	Student Night	SMCA
Thurs Mar 12	Fisher's Tudor House	Filtration for High Performance Buildings	Tabletop Vendor Show / Membership	
Thurs Apr 9	Urban Outfitters	ASHRAE Scholarships & YEA	Tour	
Thurs May 14	Dave & Buster's	ASHRAE IAQ Guide	Past Presidents & History	
Monday June 1	Northampton Valley CC	Golf Outing		
Thurs June 11	Temple University	2009-2010 Planning Meeting	•	

We need your attendance!

If we are below our guaranteed level for attendees at our meetings, our treasury could be negatively effected.

Our programs are designed around the membership's input and we all need to support these meetings to maintain a strong/informed association.

We hope to see you at our next meeting.

Please come out and support our Chapter!

2008-2009

Philadelphia Area Directory of Associations, Consulting Firms and Manufacturers' Representatives On Sale Now -Just \$23.00 each!

Send your check to:
Philadelphia Chapter ASHRAE
994 Old Eagle School Road
Suite 1019
Wayne, PA 19087-1866

Corporate Sponsors Take Note....

Those with corporate sponsor tickets must still make reservations for our meetings through Cvent (see link on first page). Please note that those with sponsor tickets who do not make reservations are not guaranteed entrance until all reserved seating is filled. Those reservations with sponsor tickets must have them at the time of the dinner. If you don't have them, you will have to pay the walk up rate for dinner. We cannot make arrangement for delivery of sponsor tickets at a date after

What is 16-40-40?

Every ASHRAE Student Member Should Know Simply put, it's the best way for ASHRAE student members to continue receiving the many member benefits of ASHRAE after finishing college.

If you're about to graduate, the 16-40-40 program is designed for you to transfer your student membership for another year for only \$16. The second year is \$40. And the third year is \$40.

Bottom line: You get 3 years of valuable membership and save up to \$274. Save time, save money and continue receiving the professional benefits that will strenghten the beginning of your career.

February Dinner Meeting Philadelphia's Green Initiative and Student Night with SMCA



From left to right are:

Zhongping Huang (Widener), Lucas Wickard (Widener), Steven Ridenour (Temple), SMCA Philadelphia President Patty Kryszczak, Luis Burgos (Temple), Zachery Smith (Drexel), and Mike Witkowski

Miss the previous meeting?

You can see the presenter's powerpoint presentation on our new website at http://phila.ashraechapters.org/storage/presentation.htm

Advanced School Notice

The Philadelphia Chapter is considering to offer an Advanced School which would build on the material in the basic school. The major component of the advanced school would be a project where the basic school information would be applied to design a complete HVAC system for a building. The course would run from October through April and meet once per week. The prerequiste knowledge of the basic school by training or experience would be needed in order to take the school.

Anyone interested in taking this school should contact Bob Finkboner at robert.finkboner@siemens.com

Chapter Technology Award Competition 2009

The purpose of the Technology Awards Program is to recognize members for innovative designs, communicate that technology to other members, and highlight achievements to other professionals.

The Chapter Technology Transfer Committee is asking for applications for the 2009 Chapter Level competition to be submitted by March 20, 2009. Awards for the Chapter Level competition will be given out during the May 14, 2009 Chapter Meeting for the following categories:

- Commercial Buildings, New and Existing
- Institutional Buildings, New and Existing
- Health Care Facilities, New and Existing
- Industrial Facilities or Processes, New and Existing
- Public Assembly Facilities, New and Existing
- Residential Buildings, New and Existing (Single Family and Multi-Family)
- Alternative or Renewable Energy Use

Entries will be judged on energy efficiency, indoor air quality and thermal comfort, innovation, operation and maintenance, cost effectiveness, environmental impact and quality of presentation.

The process for the ASHRAE Technology Awards starts right here at the Chapter level. Winners of the Chapter Competition will be sent to the Regional CTTC Chair for judging in the Regional Technology Award Competition. Regional winners will then be asked to submit a long form application for the Society Technology Award Competition. Society level awards will be given out at the Winter Meeting scheduled to be held January 23-27, 2010 in Orlando, Florida. Winners of the Society Competition will also be featured in the ASHRAE Journal.

For more information on the Technology Award Program, including application forms please visit the CTTC section of the chapter website at http://phila.ashraechapters.org/ ettc.htm

James Piscopo, PE CTTC Chair jpiscopo@aeceng.net

ASHRAE Philadelphia History

By Jared Johnson

I have spent time as the Chapter Historian reviewing the archives of the chapter and have found items of interest. I also spent some time speaking with some past presidents in order to gather some further chapter history not in boxes. The following is a brief summary on our chapter history:

- •Original Charter dates back to 1916 which was conferred to the Philadelphia Chapter of the American Society of Heating and Ventilating Engineers (ASHVE).
- •There were 36 original members under the guidance of Mr. J.D. Cassell and chapter meetings were held at the Kugler Restaurant on Chesnut Street until 1921.
- •In 1931 meetings were held 2nd Thursday of each month at the Engineers Club at 1317 Spruce Street at which there were close to 200 members (according to the 1931-32 year book).
- •In 1959 ASHVE combined with the American Society of Refrigeration Engineers (ASRE).
- •Climate started in 1965 and meetings were still held at the Engineer's Club.
- •I believe the first Past President Night was held in November of 1966.
- •It appears that our first golf outing was held in May 1967 at DuPont Country Club May for \$7.50.
- •The 1968 Region III conference was held at the Warwick Hotel in Philadelphia.
- •In 1969-1970 times were booming, there was close to 700 members. The first student chapter Charter was given to Temple University. Training programs were expanded and the tradition of Liberty Bell was started.

(Article Continued on page 7)

(Continued from page 6)

- •The ASHRAE Semi Annual meeting at the Bellevue Stratford and Philadelphia Civic Center was held in January 1971.
- •The Directory of Manufacturer's Reps began in 1974.
- •In 1977-1978 the chapter received Presidential Award of Excellence from Societytown Inn.
- •The 1980 Region III conference was held at Downingtown Inn.
- •In 1989 there were 860 area assigned members and 49 student members. The Educational Trust fund was established primarily in fact to the large chapter reserve fund. The average meeting attendance was 101 members.
- •In 1990 meetings moved to Williamson's and Colleen's.
- •The 1992 Region III conference was held at the Sheraton Society Hill.
- •In 1996-1997 there were 827 members, 51 student members. In conjunction with SMACNA, awarded first book grants to students. The ASHRAE winter meeting was held in Philadelphia.
- •The 2004 Region III conference was held at the Hyatt Waterfront with a welcome party aboard the Battleship New Jersey.

Go Green Expo Comes To Philly

Business-to-Business Expo Friday, March 13th • 10am - 5pm

Business-to-Business & Business-to-Consumer Expo Saturday, March 14th • 10am - 6pm Sunday, March 15th • 10am - 5pm

The Pennsylvania Convention Center 1101 Arch Street Philadelphia, PA 19107 www.PAconvention.com

Pennsylvania Convention Center Green Initiatives: The Pennsylvania Convention Center is committed to reducing the environmental impact of their operations and services by becoming environmentally responsible in providing the following: low environmental impact cleaning policies; waste reduction/recycling programs; sustainable cutlery, hot/cold beverage cups, napkins and plates made of 100% decomposable and biodegradable materials; restroom paper products made from recycled products and more.

For more information visit http://www.gogreenexpo.com/events/index. php?evid=4

Delaware Golf Outing

The ASHRAE Delaware Chapter is having a Golf outing on April 27th. If interested contact Frank McFadden, Bob Shunke or Doug Edwards.

Please visit website for contact information: http://delaware.ashraechapters.org/ ASHRAE%20Delaware%20Chapter.htm

PROFESSIONAL ENERGY CODE SEMINAR ANSI/ASHRAE/IESNA STANDARD 90.1-2004

ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS

ONE-DAY SEMINAR SPONSORED BY

THE New York CHAPTER OF ASHRAE



Tuesday, March 24, 2009

Location
Ted Weiss Federal Building
290 Broadway
30th Floor
New York, NY 10007

Parking is available on Worth Street near Worth and Broadway Subway Lines 4,5,6,A,E are nearby

OBJECTIVE

As states and local governments adopt ANSI/ASHRAE/IESNA Standard 90.1, "Energy Standard for Buildings Except Low Rise Residential Buildings" and building owners require compliance, ASHRAE is responding to requests to provide in-depth training on the Standard. New Jersey requires compliance with the Standard. Pennsylvania has adopted the 2006 International Energy Conservation Code (IECC) as part of the mandatory statewide Uniform Construction Code (Act 45), which includes an option for compliance with the Standard. New York is proposing an option in their Code for the Standard. Most other states adopt and enforce the IECC.

The Standard sets the minimum requirements for energy use in buildings except low-rise residential buildings and the methodology to attain these goals. It differs from past Standards as it addresses not only new construction but also additions and renovations to existing facilities. This Standard is also the sole mandatory minimum energy benchmark for the US Green Building Council Leadership in Energy and Environmental Design (LEED-NC®) program and for the Federal tax deductions available under the 2005 Energy Policy Act (EPACT).

WHO SHOULD ATTEND

Architects, Engineers, Building Owners, Code Officials, Building Managers, Contractors, Equipment Manufacturers and their Representatives, Students, and other parties involved with construction, renovation, and operation of facilities. Continuing education certificates and credits will be offered, including those for AIA and Florida professional licenses.

REGISTRATION Attention: Lou Rugulo Phone: 732-967-0591 Email: lrugulo@amicusenergy.com Fax: 732-967-0595

Email Lou Rugulo with the following information:

NAME, COMPANY, ADDRESS, PHONE#, FAX #, EMAIL, and if the books are not wanted.

Checks to be made out to: NEW YORK CHAPTER ASHRAE. Sorry, we do not accept credit cards.

Mail checks to: ASHRAE, c/o Lou Rugulo, 11 University Road, East Brunswick, NJ 08816

REGISTRATION FEES

The fee for the seminar is \$175 with the Standard and User's Manual, or \$70 without Standard and User's Manual. Full Time Students and Full Time Code Officials receiving books are invited at a discounted fee of \$120 with the Standard and User's Manual, or \$40 without the books. The Registration Fee includes:

- Instruction on the application of the Standard to be presented by eminent industry professionals.
- Copies of both Standard 90.1-2004 and the associated User's Manual. If purchased independently the cost for these two books alone would be \$203.00 for non-ASHRAE members and \$162.00 for ASHRAE members.
- Lunch and Breaks

SEMINAR SCHEDULE

REGISTRATION – 8:30 AM Introduction of presenters

BREAK - 10:15 AM

2ND MORNING SESSION – 10:30 AM **Building Envelope compliance**

LUNCH - 12:00PM

1ST AFTERNOON SESSION - 12:45 PM *HVAC compliance*

Service Water Heating compliance

BREAK - 2:45 PM

2ND AFTERNOON SESSION - 3:00 PM *Power compliance and Lighting compliance*

Users Manual and ASHRAE Services

FINISH - 5:00 PM Concluding remarks

SPEAKERS

Lawrence G. Spielvogel, PE

He is an ASHRAE Fellow and Distinguished Lecturer. Mr. Spielvogel previously served on and chaired the ASHRAE Homeland Security and Advocacy Committees, the ANSI/ASHRAE/IESNA Standard 90.1 Project Committee, ASHRAE Standard 105 on Building Energy Performance, the Standard 90 Panel on HVAC Systems, and ASHRAE technical committees on energy utilization, computer applications, and service water heating. He is also a Fellow of CIBSE (Chartered Institution of Building Services Engineers) (England), a Fellow of SLL (Society of Light and Lighting) (England), and a member of many other technical societies.

Lou Rugulo, P.E., CEM

Mr. Rugulo has over 18 years experience as a project manager and energy engineer, specializing in the development and implementation of demand-side management solutions for major clients as well as assisting clients in taking advantage of the various energy incentive programs available in the area, including financing, rebate and grant programs. Mr. Rugulo's experience encompasses design, retrofit, and troubleshooting of HVAC systems in a variety of applications such as residential, commercial, laboratory, clean room, industrial and aircraft settings. Mr. Rugulo has a B.S. in Mechanical Engineering, is a licensed Professional Engineer, and is an Adjunct Professor at Stevens Institute of Technology.

Larry Kouma

Mr. Kouma is a Senior Product Manager at Johnson Controls and has been working in the HVAC industry for more than 15 years. He has experience with hydronic system design including product and application support for steam and chilled water systems. He currently leads a team responsible for R&D direction, product planning and engineering, application support, and system integration for large chilled water equipment. He is a current voting member of the SSPC 90.1 Committee, including active membership on the Mechanical Subcommittee. He has a BS in Mechanical Engineering and an MBA in Finance.

Carl M. Watson, PE, LC

A member of IESNA for over 25 years and a registered engineer, he is an award winning lighting designer, author, and electrical engineer. He has BS in EE and an MBA from Drexel University. He is also a member of IEEE and NSPE and is Lighting Certified by the National Council on Qualifications for the Lighting Professions. He specializes in developing and implementing very effective energy management solutions that optimize aesthetics, efficiency, and maintainability. Past projects have included lighting design, power quality and energy studies for office buildings, health care facilities, banks, schools, churches, multi-family residential, parking, and municipal facilities.

Special Guest Speaker - Cyrus Nasseri

Mr. Nasseri is head of the Design, Operation, Maintenance, and Procurement Program in the Federal Energy Management Program at the U.S. Department of Energy. He is in charge of implementing Laws and rulemaking for energy efficiency for all Federal buildings.

ATTENDANCE IS LIMITED - PLEASE RESPOND BEFORE March 12, 2009

AFFILIATE MEMBERSHIP GRADE

For an Annual Dues of \$40, Applicants under Age 30 can Join ASHRAE at this introductory membership level. Membership tenure in this grade is limited to three (3) years.

Affiliate Members Benefits Affiliate Members receive monthly issues of the ASHRAE Journal and Insights Newsletter. The annual handbook is not a benefit of this grade.

Qualifications

An Affiliate Member shall have the same qualifications as an Associate Member. They are:

- 1. Experience in technical matters or in design, operation, or maintenance in heating, refrigerating, air conditioning, or ventilating fields.
- 2. An interest in the in the advancement of the Society's aims.
- 3. Possess sufficient qualifications to cooperate with heating, refrigerating, air conditioning, or ventilating engineers in the advancement of relating to heating, refrigerating, air conditioning, or ventilating engineering and its application.

Limitations

- You do not receive ASHRAE Handbook with membership. You do not receive ASHRAE Insights. You get a one-time discount (20% off) on all Handbook items.
- You can serve on Chapter committees, but cannot hold office or vote at Chapter, Regional or Society level.

Contact For Receiving Application

Go to <u>www.ashrae.org</u> and click on "Join" in the upper right corner. This will take you to a page describing each membership grade, its benefits and qualifications, and a link to membership application forms.

MEMBERSHIP ADVANCEMENT!

Any Associate Member meeting the following requirement can apply for Advancement to the more entitling Member grade. By ASHRAE society definition:

A *member* shall have the equivalent of *twelve society-approved years of experience* composed of an approved combination of: (a) completed education beyond high school, (b) work experience, and (c) professional engineering or related registration or license issued by a legally authorized body.

All technical and scientific education shall be based on curricula approved by the Board of Directors.

Approved engineering curricula shall be equivalent to the accredited by the Accreditation Board of Engineering and Technology in the United States of America or the Canadian Engineering Accreditation Board. Scientific education in fields other than engineering shall be from a college or university course of study that has been accredited by an organization charged with monitoring standards of performance. Society approved years of experience shall be credited as follows:

One and one-half years of credit for each year of completed education for graduates of approved technical curricula. One year of credit for each year of education for non-graduates who have completed a least two years of approved technical curricula. One year of credit for each year of completed education for graduates of colleges or universities which do not have accreditations. Those holding associated degrees from technical institutions shall also be credited for one year for each year of education.

One year for each year of qualifying work experiences in the performance of duties in work related to ASHRAE fields of interest and shall have included research, teaching, design, contracting, engineering sales or engineering management.

Three years of credit for professional registration of license issued by a legally authorized body in engineering or related fields, the requirements of which as to education, examination, and active practice are satisfactory to the Board of Directors.

More information is available on the ASHRAE website (www.ASHRAE.org) under menu items Membership Resources...Manage Your Membership, the above definition is extracted from such application information in PDF file format. The application can also be filled interactively online. ASHRAE sends members who upgrade a \$20 gift certificate usable at the ASHRAE bookstore or towards ASHRAE membership renewal.

Member Services

Members who would like stay on top of the latest news from ASHRAE may join the News Release List Serve at http://www.ashrae.org/template/AboutLinkLanding/category/1584.

If you or your company are hiring, please take a moment to review the resumés of chapter members and students which have been posted on the chapter website at www. ashrae-phila.org/resumes.html. We will also **post your job opening** for one month. Send it to hope@mmco1.com.

Any member who wishes to have their resumé posted on our website, or who would like to update it, can email it in a pdf format to hope@mmco1.com It will be posted for one month and may be renewed after that time.

Check

http://phila.ashraechapters.org/ for further information on the Philadelphia Chapter!

Please take note of our new web address

Welcome New Chapter Members! **New Members for the Month of February**

New Members

Mr Iain Raymond Siery - Associate Mr Gerald Timothy PE - Associate Mr Joshua Michael Henry -Associate Mr Larry Waddell - Associate Mrs Sadhna Singh - Associate Mr Michael Kelly – Member Mr William M. Harris - Member Mr Dave Nichols – Member

New Students

Ms Nicole Dubowski – Student Mr Kenneth Dean Strupczewski – Student Mr Kevin Michael Carfagno – Student Mr Mark P Hunsicker - Student

Inside This Issue	Page	
Meeting Announcement		1
President's Message		2
Speaker's Bio and Topic	2-	-3
Students Visit Expo in Chicago		3
Chapter Event Schedule		4
Previous Month's Meeting Recap		5
Chapter Technfology Award Competition		6
ASHRAE Philadelphia History		6
ASHRAE New York 90.1 Seminar	8	8-9
Membership Grade Announcements		10
Regional Event Information		10

This is your newsletter. We welcome your input and comments.

The Quaker City Climate is published eight times annually by

The Philadelphia Chapter of the American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc. 994 Old Eagle School Road, Suite 1019 Wayne, PA 19087-1866 610.971.2169 fax 610.971.4859

http://phila.ashraechapters.org/

Republication of material contained herein is expressly forbidden without official Chapter authorization. The Chapter does not speak or act for the Society. Any member with material to submit for inclusion in the Climate can send the information to:

> **Matthew Trinsey** Clive Samuels & Associates, Inc. 1 Independence Way Princeton, NJ 08540 (P) 609-627-7983 (F) 609-520-0974 matthew.trinsey@emerson.com

Material can include letters to the editor, member news, upcoming events, comments on chapter programs or issues, etc.