



QUAKER CITY CLIMATE

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Maggiano's

1201 Filbert Street
Philadelphia, Pa 19107
215-567-2020
For Directions

[Click Here](#)

Dinner Fees:

- Philadelphia Chapter Members with online reservation and pre-payment: \$30
- ASHRAE Members - Non-Chapter Members : \$40
- Non- ASHRAE Member : \$40
- Young Engineers (35 and under) with online reservation and pre-payment: \$25
- Students with online reservation: \$10.00

ASHRAE STANDARD 52.2-2007 AIR FILTRATION

Our next dinner meeting is scheduled for November 12, 2009 at Maggiano's.

To Register for the event [CLICK HERE](#). The event schedule is as follows:

- Social Hour: 5:00pm-6:00pm (Cash Bar)
- Dinner: 6:00pm
- Presentation: 6:30pm-7:30pm

The dinner meeting is being sponsored by General Aire Systems, Inc.

Speaker:

Mrs. Danja McMillan

Biography:

Danja has been serving the HVAC and air filtration industry for 20 years. She is a member of ASHRAE and during her time in Arizona was a member of the American Indoor Air Quality Council and a certified indoor air quality technician (CIAQT). She

has been the featured speaker for numerous ASHRAE/ASHE chapters across the country, speaking on ASHRAE Standard 52.2-2007, ASHRAE 62.1-2007, the latest in filtration guidelines and requirements. She was one of the featured IAQ panelists at AFEC-Denver, CO.

PRESIDENT'S MESSAGE:

I would like to thank all of the ASHRAE members who attended the SMCA Engineers Night to help them obtain a successful evening.

This month's dinner meeting night is donor recognition night and I would like to thank all of the donors for their contribution to ASHRAE research. We take special recognition of the following donors and would like to extend an invitation for them to attend the November meeting.

- Arkema INC.
- Coward Environmental Systems INC.
- Delval Equipment Corp.
- SMCA of Philadelphia and Vicinity

Please visit our web site to sign up to attend our dinner meetings or our C-Vent invitation. We are still offering for our November thru May dinner meetings the \$10.00 discount for any member that is unemployed and has their resume posted on our web site as indicated in our September newsletter.

Please review our CTTC and YEA articles for upcoming activities. Our planned YEA activity for October has been moved to November because of the World Series. GO PHILLIES.

Our chapter needs volunteers to assist our board members and committee chairs. Please contact any board member if you

are interested. Specific needs are for YEA, membership and student activities but all commitments are open for volunteers.

Our basic design school has started and our advanced school is getting ready to start. Anyone interested in attending the advanced school please contact Mike Witkowski

I hope to see you at our next meeting.

Bill Hart

chick300@aol.com

609-238-2585

INTRODUCTION

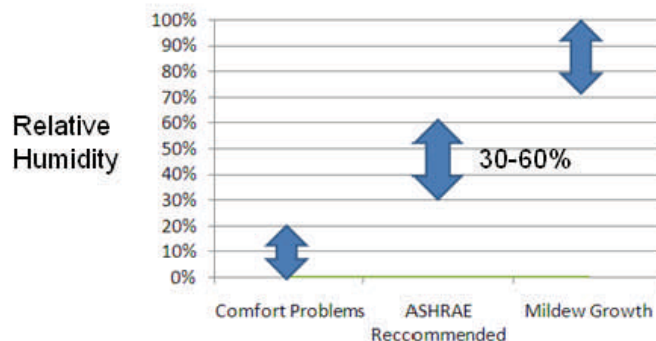
Many people outside of the HVAC industry judge an HVAC system's ability to provide a comfortable environment based solely on its ability to control dry bulb temperature. Most often ignore or place less importance on other aspects affecting comfort such as noise, humidity and ventilation levels.

Noise - Studies have shown that noise levels can significantly affect the learning environment. ANSI standard S12.60 for classroom acoustics requires a maximum background noise level of 35 dBa (about NC-27). As of this writing a number of state-wide organizations have adopted the full standard or modified/derivative versions of the sound standard. With the conventional HVAC systems typically used in schools today (fan-powered VAV, fan coils, unit ventilators) these noise level requirements can be difficult if not impractical to attain.

Humidity - Studies have also shown that mental performance is affected by humidity levels. Most classrooms are fully occupied for much of the day and as such are most often at their full design latent cooling load. Because classrooms are most typically perimeter zones, their sensible cooling demand will vary from the full cooling design load to no cooling load at all such as in the spring and fall. With conventional HVAC systems (VAV, fan coils, unit ventilators) this often leads to a loss of humidity control in the classroom. (For more information, refer to "Failing Grade for Many Schools. Report Card on Humidity Control" by Fischer and Bayer in the May 2003 ASHRAE Journal. Also of interest is the "Indoor Air Quality & Student Performance" publication issued by the US EPA in August 2003. There is an extensive listing additional resources/articles referenced at the end of this article.).

As an example, with a VAV system the supply air will be modulated down as the sensible cooling load decreases. While the design dry bulb temperature of the room will be maintained, the latent cooling capacity being provided will decline with the reduced supply airflows. As a result the relative humidity of the room may rise if insufficient latent cooling capacity is being provided by the supply air. With fan coils and unit ventilators a similar loss of humidity control can occur. As the valves serving the cooling coils cycle or modulate toward closed due to the lower sensible cooling demand, the supply air will not be sufficiently cooled/dehumidified resulting in a similar loss of humidity control.

The ASHRAE 62 Indoor Air Quality standard requires that relative humidity levels be controlled to below 60% for proper air quality. In addition to comfort concerns, higher humidity levels can foster microbial growth (bacteria, fungi, etc). Microbial growth can result in odors, allergens and even toxins. Microbial growth can occur when relative humidity levels are generally over 60-70%.



Ventilation - The issue of ventilation air rates and compliance with the requirements of the ASHRAE 62 can also be an issue with the more conventional systems. Using the previous VAV example, the ventilation air requirement will also likely not be met at part load conditions unless the air-side system is operating on a full economizer mode (much in doubt on temperate, yet humid days).

YOUNG ENGINEERS IN ASHRAE



Lucky Strike Lanes
1336 Chestnut Street
Chestnut Street between
Juniper and 13th
Philadelphia, Pennsylvania
19107
(215) 545-2471

For Directions Click [HERE](#)
[Lucky Strike Dress Code](#)

Philadelphia Chapter of ASHRAE invites all members under 35 to the second YEA Bowling Night! On Thursday November 19th, John F Scanlan Inc is sponsoring the YEA Fall Bowling Night. Come out at 6:00 pm to Lucky Strikes in Center City for a fun time of bowling, food and hanging out!

Agenda:

6:00-6:30 - Arrive at Lucky Strike to pick up shoes and get lanes
6:30 - Bowling Starts

Please register [HERE](#) for the Event

Contact Ashley Kenyon if you have any questions at
akenyon@klingstubbins.com



YEA Philadelphia has setup a Facebook group for you to join to keep you updated on all the latest information including YEA specific meetings and a forum for young engineers to discuss amongst one another.

The group is located [Here](#)

*Parking: If you park at Patriot Parking Garage at 1305 Walnut Street (near the Holiday Inn Express) and present your ticket to Lucky Strikes, they will validate it and you will only have to pay \$10.



CHAPTER TECHNOLOGY TRANSFER COMMITTEE

Milton W. Garland Commemorative Refrigeration Award for Project Excellence

ASHRAE offers two competition-based awards encouraging the design of innovative refrigeration system awards. The Milton W. Garland Commemorative Refrigeration Award for Project Excellence recognizes non-comfort refrigeration systems. The Refrigeration Comfort Cooling Award for Project Excellence is oriented toward comfort refrigeration systems.

The Philadelphia Chapter Technology Transfer Committee is currently accepting applications for both competitions for 2010.

The Garland Award competition is open for the design of mechanical refrigeration machinery for applications other than human comfort: e.g., food processing/preservation, industrial/manufacturing processes, life support in extreme environments, recreational facilities.

The Refrigeration Comfort Cooling Award competition is open for the design of mechanical refrigeration machinery for human comfort applications.

Both submissions must be made within 36 months of the initial operating date of the system, and will be judged on the

following criteria:

- Complexity of Problem
- Solution Concept
- Architectural Integration
- Originality
- Achievement of Performance Criteria
- Energy Effectiveness
- Budget Compliance
- Ease of Maintenance

Additional information can be obtained from Mark Maguire (mmaguire@klingsubbins.com), Chapter Transfer Technology Chair, or by visiting the chapter Website:

<http://www.ashrae.org/members/page/797>.

Chapter Technology Award Competition 2010

The Technology Award Program recognizes members for innovative designs, communicate that technology to other members, and highlight achievements to other professionals.

The Chapter Technology Transfer Committee will be accepting applications for the 2010 Chapter Level competition in March 2010 in 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. Chapter Competition winners will be judged in the Regional Technology Award Competition. Regional winners will then submit a long form application for the Society Technology Award Competition. 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 <http://www.ashrae-phila.org/storage/cttc.htm>

Mark M. Maguire, PE
Chapter Chair – Technology Transfer
mmaguire@klingsubbins.com

BACK BY POPULAR DEMAND!

ASHRAE

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND
AIR-CONDITIONING ENGINEERS, INC. PHILADELPHIA CHAPTER

ADVANCED HVAC SYSTEM DESIGN COURSE

Through this challenging course, students will use architectural building backgrounds to develop a complete HVAC system. Design concepts will encompass air systems, chilled and hot water hydronic systems and equipment selections such as chillers, boilers and unitary rooftop. The schedule is a demanding one-year, 28-night course culminating in a student generated total system design. Additionally, there are plenty of out-of-class assignments to help students manage their workload.

**This course is a fantastic opportunity to develop
the tools necessary to further an HVAC Career.**

2009-2010 Course Subjects Include:

Code Evaluation
Load Calculation
System Evaluation & Selection
Equipment Selection
Layout
Controls
Specifications

All books and reference materials will be supplied. Classes will meet one evening each week, beginning in early September and continuing until the end of April. The location and tuition fee are still to be determined.

If you are interested in possibly enrolling in this course and would like to receive further information, please contact:

Hope Silverman
Philadelphia Chapter of ASHRAE
Phone 610-971-2169
hope@mmco1.com

PHILADELPHIA CHAPTER PROGRAMS CALENDAR 2009-2010

Date	Location	Topic	Theme	Joint Meeting
10/8/2009	The Rittenhouse	Joint Meeting with SMCA		SMCA
11/12/2009	Maggiano's Center City	Standard 52-2007	Donor recognition and Research Promotion	
12/10/2009	Union League (Breakfast Meeting)	Building Information Modeling		
1/14/2010	Maggiano's Center City	Philly Sustainability / Clinton Climate Initiative / 90.1-2007	Sustainability	
2/11/2010	Dave & Busters	Energy Management in Existing Buildings	Student Night & Membership Promotion	SMCA
3/11/2010	Crown Plaza - King of Prussia	LEED Measurement & Verification	Trade Show	
4/14/2010	Union League (Breakfast Meeting)	Standard 189.1 High Performance Buildings	Sustainability	
5/13/2010	Maggiano's Center City	BIM and CFD	Past President's Night	
6/4/2010	Northampton Valley CC	Golf Outing		
Mid June 2010	Temple University	2010-2011 Planning Meeting		

ASHRAE CERTIFICATIONS

ASHRAE offers certification programs in five areas:

- Healthcare Facility Design
- High-Performance Building Design
- Operations and Performance Management
- Commissioning Process Management
- Building Energy Modeling (coming in March 2010).

An ASHRAE certification lets employers and clients know that the certification earner has mastered a significant body of knowledge in

a specific aspect of HVAC&R design. A firm that employs ASHRAE certification earners demonstrates a corporate commitment to the professional development of its employees and a dedication to providing the best possible resources for building design projects.

Each category has eligibility standards, which are a combination of educational and experience criteria. After filing an eligibility request and being approved by ASHRAE, a candidate takes an electronically-administered exam at an Applied Measurement Professionals (AMP) testing center. After passing the 2 to 2½ hour test (depending on the

category), the candidate can then claim to be ASHRAE-certified in that area.

ASHRAE offers a recertification process, including an ethics statement and a continuing education requirement. Additional information, including a candidate guidebook, is at ashrae.org/certification.

Mark M. Maguire, PE

Chapter Chair –

Technology Transfer

mmaguire@klingsstubbins.com

The Philadelphia
Chapter of the
American Society of
Heating, Refrigerating
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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:

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Clive Samuels & Associates, Inc.
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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.

SESSIONS TO BOOST EFFICIENCY, SUSTAINABILITY OF CONTRACTOR PROJECTS FEATURED AT AHR EXPO

ATLANTA – Two sessions to assist contractors in construction management and high-performance building are being offered by ASHRAE at the AHR Expo.

“The bottom line is that we’re all striving to deliver excellent service for our clients and to do that more effectively,” Billy Austin, chair of ASHRAE’s task group on contractors and design build firms that is sponsoring the sessions, said. “These ASHRAE sessions will bring together all members of the building team to learn new skills and to explore ways to work more closely together. With contractors representing 25 percent of Expo attendees, ASHRAE seeks to bring their knowledge and expertise into these sessions as well as to help shape the Society’s future activities in contracting and design/build.”

The sessions, which require no conference badge or fee for AHR Expo attendees, are Construction Management, 2-3 p.m., Monday, Jan. 25, and Cost/Benefit Analysis Methodology and Tools Needed by Owners, 2-3 p.m., Tuesday, Jan. 26.

Both take place at the Orange County Convention Center, site of the 2010 AHR Expo, Jan. 25-27, Orlando. The ASHRAE 2010 Winter

Conference takes place Jan. 23-27, Rosen Shingle Creek hotel, Orlando. For more information, visit www.ashrae.org/Orlando.

Construction Management addresses two key contractor-related topics to help improve the quality of their work: whether systems commissioning will improve the contractors’ ability to perform well and preconstruction management basics for mechanical engineers and contractors on design-build/design-assist projects.

Cost/Benefit Analysis Methodology and Tools Needed by Owners provides an understanding of high-performance building cost-benefit analysis with a focus on the LEED rating system. Several topics are addressed, including cost/benefit project setup, fiscal metrics, constraints and length of analysis.

ASHRAE, founded in 1894, is an international organization of some 50,000 persons. ASHRAE fulfills its mission of advancing heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education.

MEMBERSHIP PROMOTION

New Members 10/26/2009

Mr. Chris Gale - Associate
Mr. Patrick Kilpatrick - Associate
Mr. Donald Milan Bravo - Associate
Mr. Edward J Retzbach - Member
Mr. Jame Bing Cheng - Member

Mr. Jeremy L Schwarz - Student
Mr. Mohamed Naweed Hamit - Student
Mr. Gary James Haffely - Student
Mr. Adams Edwin Rackes - Student
Mr. Kevin Edstrom - Student
Mr. Peter Edwards - Student
Miss Lauren Margaret Giardiello - Student
Mr. Nicholas Bryon Scheib - Student
Mr. Gary Geary - Student
Mr. Nicklas Lupisella - Student
Mr. Andrew Packer - Student

ASHRAE is no longer accepting applications for grade advancement. To advance from associate to member, a member must update their ASHRAE bio online, and notify membership@ashrae.org they have an updated bio and wish to be considered for grade advancement. Tips for updating bios:

- I. Go to www.ashrae.org
- II. Login
- III. In Member Central, Click “Update Your Bio”
- IV. Go through each of the small blue tabs to enter demographics, contact information, education, professional registration, etc. It’s very easy!

Bob Finkboner
Membership Promotion Chair