



Philadelphia Chapter

Quaker City CLIMATE

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

Thursday,
January 8, 2009

Volume 44, No. 5
January 2009

Dinner Meeting

*"Reasoned Responses to Natural,
Accidental and Intentional Threats*

presented by

Mr. Lawrence G. Spielvogel, PE
ASHRAE Distinguished Lecturer

5:00 pm to 6:00 pm
Social Hour with a cash Bar

6:00 pm
Dinner

6:15 pm to 7:30 pm
Presentation

Free Parking in Rear of Restaurant

FOR RESERVATIONS

**All attendees should register online
through Cvent.**

**To register please visit our NEW web site at
<http://phila.ashraechapters.org/events/events.htm>**

LOCATION

Spaghetti Warehouse
1026 Spring Garden St
Philadelphia, Pennsylvania 19123
215-787-0784

Go to <http://www.meatballs.com/>
for more info
Free parking in rear of restaurant

RESERVATION NOTICE

Reservations must be made
no later than 12:00 Noon
on Wednesday, January 8, 2009.

COST

Philadelphia Chapter Members with
online reservation and prepayment
\$30

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

Non-Members with
online reservation and prepayment
\$40

Young Engineers with online
reservation and prepayment
\$20

Students with online reservation
and prepayment
\$10

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

Walk up fees
(based on availability)
\$45

From Our President

This month brings many new events for our chapter. I hope more of our members take advantage of all that ASHRAE membership offers. It really is the best value you can get to help improve your career.

We have our dinner meeting on Thursday January 8th. Larry Spielvogel will discuss risk and design for Reasoned Responses for Natural, Accidental and Intentional Threats. This should help you as an engineer evaluate your risk and help owner's understand their risk as to why newer designs must incorporate changes to meet these risks. Bring you questions as Larry is probably the best person in the country for HVAC engineers to ask about minimizing risk exposure.

We have the first sheetmetal trade offering testing, adjusting and balancing (TAB) seminar this month at the Local Union hall on Delaware Avenue on Saturday the 17th. Look for registration through our online service which you can reach at our webpage.

The Future Cities competition in which middle school students are introduced to engineering and design and mentored by volunteers from various engineering societies as part of engineers week will take place this month. Look for the results to be posted in our next newsletter.

We have some seminars coming up this month including one on insulation promoted by the Insulation industry trade group. Look for email updates for the exact date and time.

Finally we have the AHR Expo and ASHRAE Winter Meeting in Chicago from January 24th to the 28th. Our chapter has sponsored three students to attend. If you are planning to attend please book early. Costs are lower now and nearby hotels will get filled up.

Next month we have our meeting a week early on Thursday February 5th when we will host Mark Hughes of the Mayor's Office of Sustainability. There may also be a special guest joining us so stay tuned. It should be a very informative evening.

You as a member also have the opportunity for even greater improvement by volunteering for chapter activities with the board of governors or by joining a technical committee. You can help make the chapter better and help yourself in your career. If you have questions about what is involved or want to volunteer in any category please contact me.

We are also still looking for contributions to ASHRAE Research; your money goes to help improve the technology for a cleaner and more energy efficient environment for us and future generations.

Jeff Gilbeaux

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

January Speaker Biography



Mr. Lawrence G. Spielvogel, PE

Mr. Spielvogel is a Consulting Engineer in King of Prussia, Pennsylvania, a suburb of Philadelphia. He holds a B.S. in Mechanical Engineering from Drexel University and is a Registered Professional Engineer in 49 States. He is also a Chartered Engineer in England, a European Engineer in all 27 Common Market Countries, a Certified Plant Engineer, and has lectured and written extensively.

He is a Fellow of ASHRAE (American Society of Heating, Refrigerating, and Air Conditioning Engineers), an ASHRAE Distinguished Lecturer, and a winner of its Distinguished Service Award. He chaired the ANSI/ASHRAE/IESNA Standard 90.1 Project Committee from 1999 to 2002, which serves as the basis for most building energy codes and is the energy benchmark for Federal tax legislation, the US Green Building Council LEED® Program, and most other green building programs. He formerly served on and chaired the ASHRAE Advocacy Committee.

He is also a Fellow of CIBSE (Chartered Institution of Building Services Engineers) (England), a Fellow of the SLL (Society of Light and Lighting) (England), a Member of IESNA (Illuminating Engineering Society of North America), ASPE (American Society of Plumbing Engineers), NFPA (National Fire Protection Association), ICC (International Code Council), and many other Technical Societies.

From 2001 to 2006, Mr. Spielvogel served on the U. S. National Academy of Sciences and ASHRAE committees that studied threats from terrorism and recommended methods of dealing with them, and chaired the ASHRAE Committee on Homeland Security from 2003 to 2006.

His practice is limited to consulting on energy management, procurement, and problem solving in buildings, and he has been a consultant on many major buildings around the country and the world.

January Speaker Topic

This presentation is based on the 2003 ASHRAE report “Risk Management Guidance for Health, Safety, and Environmental Security Under Extraordinary Incidents” and the forthcoming ASHRAE Guideline 29 on “Risk Management of Public Health and Safety in Buildings,” and addresses risk management strategies for protecting buildings and their occupants from intentional, accidental, or natural events. The focus is on health, comfort, sanitation, and environmental security issues involving air, water, and food technologies, and the steps, if any, that should be taken if the risk of intentional attack is deemed sufficiently high, as well as minimizing risks from natural and accidental incidents.

PHILADELPHIA CHAPTER ASHRAE 2008 - 2009 PROGRAMS

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

Date	Location	Dinner Topic	Theme	Joint Meeting
Thurs Jan 8	Spaghetti Warehouse	Reasoned Responses to Natural, Accidental and International Threats		
Thurs Feb 5	Dave & Buster's	Philadelphia's Green Initiative	Student Night	SMCA
Thurs Mar 12	Fisher's Tudor House	Air and Gas Filtration	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!

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 the event.

December Breakfast Meeting Condenser Water Heat Recovery



Miss the previous meeting?

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



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
993 Old Eagle School Road
Suite 1019
Wayne, PA 19087-1866

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 prerequisite knowledge of the basic school by training or experience would be needed in order to take the school. The cost of the school would \$1000. 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 6, 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/cttc.htm>

James Piscopo, PE
CTTC Chair
jpiscopo@aeceng.net

Society News

Reps. Brady and Schwartz Join High-Performance Building Caucus

Congressman Robert Brady who represents the first district and Allyson Schwartz who represents the thirteenth district of Pennsylvania have joined the newly created High-Performance Building Congressional Caucus. The High-Performance Buildings Caucus of the U.S. Congress was formed to heighten awareness and inform policymakers about the major impact buildings have on our health, safety and welfare and the opportunities to design, construct and operate high-performance buildings that reflect our concern for these impacts. Fundamental to these concerns include protecting life and property, developing novel building technologies, facilitating and enhancing U.S. economic competitiveness, increasing energy efficiency in the built-environment, assuring buildings have minimal climate change impacts and are able to respond to changes in the environment, and supporting the development of private sector standards, codes and guidelines that address these concerns. ASHRAE serves as the chair of the executive committee of the coalition of private sector organizations that support the work of the caucus. More information on the caucus is available at <http://www.hpbccc.org>.

Insulation Seminar Invitation

The National Insulation Association (NIA) is pleased to extend an invitation to the ASHRAE Chapter Members to attend an insulation seminar on February 5, 2009 in Philadelphia. The seminar is entitled The Proven But Forgotten Technology, brochure attached. The seminar will focus upon three primary areas, Mechanical Insulation, HVAC & Building Insulation and Life Safety and Fire Protection Applications. All three areas are important to ASHRAE members.

NIA entered into an educational alliance with ASHRAE in 2007 to collaborate on educational programs and initiatives that would be of benefit to our respective members. As a direct result of that alliance NIA is pleased to offer this opportunity to ASHRAE Chapters.

Should you have any questions please do not hesitate to contact me directly or the NIA offices at 703-464-6422 or e-mail at events@insulation.org.

FUTURE CITY COMPETITION

OVERVIEW & SCHEDULE

Competition Structure

Registration for the competition starts in May and continues throughout the summer and fall to mid- October. The competition begins on the first school day in September and continues to the end of January, culminating in an all day judging event where the students experience the opportunity to deliver an engineering presentation. The competition has four phases:

Computerized design using SimCity 3000TM Special Edition provided by Maxis

Physical scale-model of a section of the city

Essay on an engineering problem and an write and abstract about your city

Team presentation

Phase 1: Design City - September to November

The team designs its City of the Future using SimCity 3000TM software provided by Maxis. The teams are required by the program to control the rate of development given the constraints present in building real cities (taxes, traffic congestion, pollution, etc.) and the time available. They are also assigned a specific engineering problem in the competition program around which they must develop their city. During October there are local meetings to provide orientation for teacher and mentors. After design work is completed, a copy of the computer file sent to the Regional Coordinator which will be used for judging of the maps in early January.

Phase 2: Build Model - November to January

The team builds a 30"x60"x24" high (max.) scale model of a section of their city. The model must contain at least one moving part, such as a transportation or communications component. If a power source is used, the power must be self-contained. The team decides what materials to use to construct the model, such as Styrofoam, balsa wood, cardboard, clay or toothpicks. They have to be inventive as the total cost of the model and presentation is limited to \$100. Soda bottles, L'eggs containers, candy boxes, empty cans and a variety of materials find their way into the models. Recycling is encouraged as much as possible.

Phase 3: Essay - November to January

The students will write two essays. One of these is a short abstract to describe their city and some of its services. The purpose of the abstract is to give the judges a quick overview of the design of their city. The other essay is longer and must be researched with a bibliography of references. It is based on the engineering problem assigned at the beginning of the competition. Develop an engineering solution to the engineering problem presented. Use and describe your design of the solution to the problem. It's not only okay to be futuristic, that is what the contest is all about - -but your solution must be based in engineering principles or design."

Phase 4: Competition Day - January

The student teams from all participating schools come together at a central location for an all day judging event. The students deliver a presentation to judges of engineers and planners discussing their city and its amenities. The maximum time for this presentation is 7 minutes and is timed at both the regional and national competitions. The students are also evaluated as a team on how well they can explain the design and function of their futuristic city. Students are encouraged to use flip chart or poster-sized materials to present their city to panels of judges. Once the students have completed their presentation, they are questioned for an additional 8 minutes by the judges to determine the depth of their knowledge of their city and the engineering principles they have learned.

Competition Awards

All of the six finalists are provided certificates and savings bonds in decreasing amounts for first place, second place, third place and honorable mention (remaining three finalists). The first place team represents our region in the National Future City Competition in Washington, D.C. during National Engineers Week, held annually in February. There, they compete with teams from 31 other regional competitions around the country. They will be trying for one of the three national awards as well as a number of national special awards.

Our Philadelphia teams always placed in of the top five awards since we first participated in the competition in 1996. In 1999, our winning team from Our Lady Help of Christians School in Abington, PA went "all the way" and were the National Engineers Week Future CityTM champions.

Special Awards

In addition to the competition awards, there are a number of special awards provided by corporations, technical societies and individuals to schools showing excellence in special categories such as transportation, energy distribution, waste water treatment, manufacturing, fire protection and many others. These awards usually consist of savings bonds for the students and engraved plaques for all of the team members. We have awarded up to 35 different special awards annually so that every team has the opportunity to win at least one award. The goal is to have the teams leave the competition feeling that they have been recognized for their efforts.

For more information visit <http://www.futurecityphilly.org/>

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 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 www.ashrae.org 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.

2009 ASHRAE Winter Conference
January 24 -28
Chicago, IL

International Air-Conditioning, Heating, Re-
frigerating Exposition
(AHR Expo)
January 26 - 28, 2009
Chicago, IL

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.

Welcome New Chapter Members!

New Members for the Month of December

New Members

Mr Scott Thomas Wingert - Associate
Mr Benjamin David Spears - Associate
Mr James A Bilella - Member
Dr Kamran Fouladi - Member
Mr Grant Smith - Member
Mr Jason Weaver - Member

New Students

Mr Marc Melchiorre - Student

Check
<http://phila.ashraechapters.org/>
for further information
on the
Philadelphia Chapter!
Please take note of our new web address

Inside This Issue

	Page
Meeting Announcement	1
President's Message	2
Speaker's Bio and Topic	3
Chapter Event Schedule	4
December Breakfast Meeting Pictures	5
Chapter Technology Award Competition	6
Society News	6
Insulation Seminar Invitation	6
Future City Competition	7
Membership Grade Announcements	8
Regional Event Information	9

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.