

April 2014
Volume 49, Issue 8

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COSTS

Fees are based on online reservations and prepayment.

Philadelphia Chapter Members:
\$30

ASHRAE Members -
Non-Chapter Members:
\$40

Non- ASHRAE Member:
\$40

Young Engineers (35 & under):
\$25

Students:
\$10

SEMINAR COST:
\$50



QUAKER CITY CLIMATE

Thursday, April 10, 2013

Larry Schoen, P.E.

Principal Engineer, Schoen Engineering Inc.

1:30 PM to 4:30 PM Seminar

"Theories and Principles of ASHRAE Standard 55"

[Click here](#) to Register for the Seminar

Certificates of Attendance will be available.

5:00 PM to 6:00 PM Social Hour/Cash Bar

6:00 PM to 7:00 PM Dinner

7:00 PM to 8:00 PM Presentation

"ASHRAE Standard 55 -

Updates and Recent Developments"

[Click here](#) to Register for the Dinner/Presentation

This is Membership Promotion Night.

See [page 8](#) for more information on the presentations and speaker.

LOCATION

Wyndham Philadelphia Historic District

(formerly the Holiday Inn)

400 Arch Street

Philadelphia, PA 19106

215-923-8660

Please note that the Wyndham does not provide free parking in the attached parking garage. Nearby parking can be found [here](#).

2013- 2014

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Golf Outing Director

Tim Reinking

PRESIDENT'S MESSAGE

I would like to thank all those that attended and participated in last month's meeting to support our chapter.

This month we have an afternoon seminar and dinner presentation on ASHRAE Standard 55. See [announcements](#) in this newsletter for further details. I encourage attendance at the afternoon seminar and/or dinner presentation as this is an opportunity for us in the Philadelphia area to hear from a presenter that is an ASHRAE Fellow and can get great information on Standard 55.

This month I'd like to remind everyone that the deadline is approaching for ASHRAE Technology Award submissions. We will be accepting chapter level submissions through April 15 and will be forwarding them on to the Regional competition in May. Please contact [Chris Gale](#) our CTTC chair for more information and submission forms.

Other upcoming events include ASHRAE's Philadelphia Chapter annual golf outing on April 25 which you can register for online at Cvent or contact [Tim Reinking](#) our Golf Outing Chair who has been doing a great job in his first year as chair in taking over from me. He has been making a great effort to boost attendance and promoting this event. So I encourage you to participate in this fun event.

See you all on April 10 at The Wyndham.

Jared Johnson

Philadelphia Chapter President
c021@ashrae.net

**Young Engineers in ASHRAE
YEA Phillies Night**
Sponsored by Del-Ren Associates

Wednesday, May 28, 2014
Phillies vs. Rockies
5:00 PM—10:00 PM
YEA & Student Registration Fee \$15.00

Philadelphia Chapter ASHRAE invites all members under 35
to a night of fun at the Phillies game!

Tickets are limited. Sign up today to get your seat!

Click [here](#) for more details and to register!

Please submit articles highlighting novel HVAC technologies to Chapter Technology Transfer Committee Chair Chris Gale (c021cttc@ashrae.net) for consideration in future newsletters.

Did you know there are free design guides available on the ASHRAE web site? The regular technical article is not the only place to get great free information each month. Take a few minutes to log on and see the variety of design guides available to download at no cost. The design guides can be located by using the link below.

<https://www.ashrae.org/standards-research--technology/advanced-energy-design-guides>

Data Centers and Comfort Cooling

On the surface, it seems like data center buildings and cooling systems should not be significantly different than most other commercial buildings. This article provides a brief summary of some key differences that ultimately necessitate drastically different HVAC approaches.

Some of the ways that data centers and their cooling systems are significantly different are:

Data Center Occupancy. The primary occupants in a data center are not people. Therefore, the load associated with occupancy patterns and variation is significantly different than most commercial buildings.

Data Center Upgrade Frequency (Technology Refresh Rate). The frequency of upgrade for a data center is often very rapid compared to most commercial buildings. The magnitude of change to the HVAC loads associated with this upgrade for a data center further compounds this difference.

Data Center Power Density. Typical data centers are often between 50 to 200 W/ft²; although some data centers are over 1,000 W/ft².

Data Center Cooling System Options. The types of cooling options and cooling media used to transport the heat from the electronics to the outdoors can be vastly different than systems used for comfort cooling applications. In addition, the 365/full-time operations of large cooling loads year-round changes the design variables that must be considered across different climate zones.

Occupants & Upgrade Frequency

In the traditional commercial sector, it is common to use the term fixtures, furnishings, and equipment (FF&E). FF&E is not considered to be the occupants of a given building; typically, people are considered the occupants. In commercial buildings, computers and other IT equipment would fall under the FF&E category, also referred to as the plug loads for cooling load calculations.

In a data center, the computers themselves are often labeled as the occupants since they are the primary drivers behind the design. However, the more accurate driver behind the design would actually be the software (applications) that runs on the computers (hardware); therefore, software becomes the occupant, and the hardware becomes the FF&E. The plug loads actually can vary as a function of the software applications: type, use profiles, configurations, and so on.

[\(click here to read the entire article\)](#)

Design on the Delaware 2014 Program Proposals Due April 11

Share your expertise, experience, and leadership in the design and building industry by presenting a program at the 12th Annual Design on the Delaware Conference in Philadelphia.

AIA Philadelphia is accepting program proposals for the 2014 Design on the Delaware conference taking place November 12 -14, 2014, at the Sheraton Philadelphia Downtown Hotel and Center for Architecture. This multi-disciplinary conference for architects, landscape architects, planners, engineers, and other design and building professionals features four keynotes speakers, 36 professional education programs, three days of tours and a full day design charrette.

Program proposals are due April 11 and must meet the guidelines as outlined in the Call for Programs. To download the Call for Programs, visit www.designonthedelaware.com.

Advertising, exhibit, and sponsor opportunities are also available. Information available on website www.designonthedelaware.com or contact Pat Gourley at pat@aiaphila.org, 215-569-3186.

SAVE THE DATE!

ASHRAE PHILADELPHIA CHAPTER ANNUAL GOLF TOURNAMENT

Friday, April 25, 2014

Northampton Valley Country Club

299 Newtown-Richboro Road

Richboro, PA 18954

www.nvgc.com

Lunch/Registration: 12:00 PM

Shotgun Start: 1:00 PM

Dinner/Awards: Following Golf

Click [here](#) for more details and to register!

PHILADELPHIA CHAPTER PROGRAMS CALENDAR 2013-2014

Date	Location	Topic	Theme
4/10/14	Wyndham Philadelphia Historic District	ASHRAE Standard 55 (Seminar and Dinner Presentation)	Membership
4/25/13	Northhampton Valley Country Club	Golf Outing	
5/8/14	TBD	TBD / Tour	
5/14/14	Dave & Buster's	Seismic Restraint and Introduction to SMACNA's New "Duct App" presented by Eli Howard	Past President's Night

*Program calendar is subject to change. Please refer to [ASHRAE Philadelphia Website](#) for up to date information.
Advance registration and pre-payment are required before the meetings.*

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!

Are you interested in advertising your company
in the
2014-2015 Philadelphia Area Directory
of Associations, Consulting Firms, and
Manufacturers' Representatives?

Email hope@mmco1.com
before April 4, 2014.

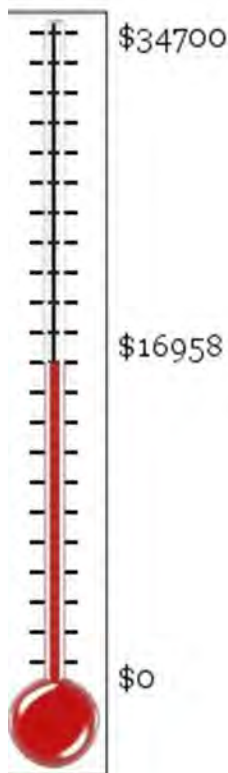
Research Promotion

Gary C. Debes, Philadelphia Chapter RP Chair

Phil Greco, Philadelphia Chapter RP Vice-Chair

We would like to thank the following contributors for their support of ASHRAE Research Promotion campaign:

Jim Piscopo
Mike Witkowski
Jared Johnson
Casey Younkins
Ashley Lester
Gary Debes
Eric Zanolini
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Associated Steam Specialty
Arora Engineers
Sass Moore & Associates
Weil-McLain
Coward Environmental Systems

These contributors have donated \$16,958 toward our Chapter goal of \$34,700. Those individuals in **bold** are Board of Governors members that have fulfilled the Full Circle requirement of and Honor Roll level contribution of at least \$100 from the BOG and RP Chair to show support from the Chapter leadership. Those Members in *italics and underlined* are Life Members who generously contributed their "dues" of \$196 since they are dues exempt. As you can see by the thermometer we have a long way to go, please be generous when you are contacted by a committee member.

ASHRAE Conferences 2013-2014

Attend to See What's New, Learn New Skills, Earn PDHs, Network with Peers

ASHRAE IAQ 2013: Environmental Health in Low Energy Buildings

Oct. 15-18, 2013 | Vancouver, BC, Canada

www.ashrae.org/IAQ2013

Comprehensive overview presented via papers.

Co-organizer:



ASHRAE 2014 Winter Conference

Jan. 18-22, 2014 | New York, NY

Jan. 21-23, 2014 | AHR Expo

www.ashrae.org/newyork

Bookstore Sponsor:



First International Conference on Energy and Indoor Environment for Hot Climates

Feb. 24-26, 2014 | Doha, Qatar

www.ashrae.org/hotclimates

Papers focused on arid and humid hot climates.

Organized by:



Qatar Environment & Energy Research Institute

Ministry of Gas, Electricity

ASHRAE Qatar Branch Chapter

Co-sponsor:



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High Performance Buildings Conference

April 7-8, 2014 | San Francisco, Calif.

www.hpbmagazine.org/hpb2014

State-of-the-industry presentations



Efficient, High Performance Buildings for Developing Economies

April 24-25, 2014 | Manila, Philippines

www.ashrae.org/Developing2014

First ASHRAE conference on this topic.

Organized by:



Co-sponsor:



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ASHRAE 2014 Annual Conference

June 28-July 2, 2014 | Seattle, Wash.

www.ashrae.org/seattle

2nd Annual Research Summit presented.

2014 ASHRAE/IBPSA-USA

Building Simulation Conference

Sept. 10-12, 2014 | Atlanta, Ga.

www.ashrae.org/Simulation2014

Single collaboration of Energy Modeling and SimBuild Conferences.

Organized by:



Get Updated on Current Trends and Make Industry Connections at an ASHRAE Conference!

www.ashrae.org/conferences



April 10, 2014 Seminar and Meeting

Seminar Course Description:

Based on ANSI/ASHRAE Standard 55, *Thermal Environmental Conditions for Human Occupancy*, this course covers the theory and principles of the standard. It is intended to bridge the gap between the design practitioner's knowledge of the built environment and its thermal relationship to the occupant's physiology and psychology. Using examples, the course illustrates how to achieve compliance with the standard for the purposes of satisfying the requirements of various building performance programs such as LEED®.

Presentation Summary:

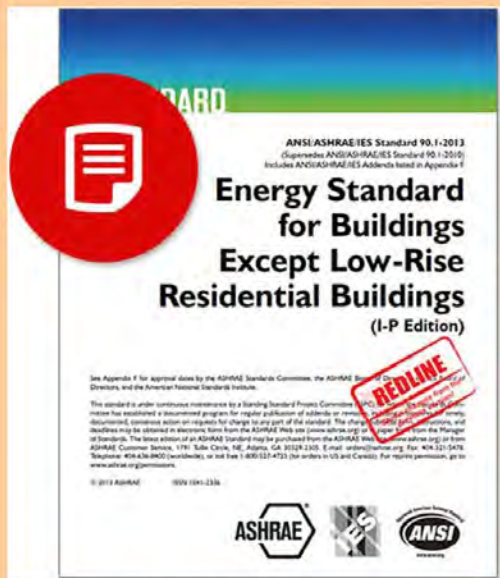
Standard 55-2013 Thermal Environmental Conditions for Human Comfort has just been released. It contains clear, concise code-type requirements for several compliance paths with particular local relevance. We will discuss the standard in general explaining how air speed, radiation, dry bulb and wet bulb temperatures work together to form an acceptable indoor environment. Specifically how elevated air speed can allow higher indoor temperatures. The adoption of Standard 55 in codes, other standards and green building rating systems such as LEED will be covered. Join us for this dinner presentation and the afternoon seminar for the in-depth course on the Standard. Note: Afternoon seminar and the evening presentation do not duplicate each other.

Speaker Bio:

Larry Schoen, P.E., is principal engineer for Schoen Engineering Inc., which does analysis and design of mechanical and electrical systems, with a focus on energy efficiency and quality of the indoor environment. Previously, Larry was engineering manager for property operations at The Rouse Company, with a portfolio of 50 million ft² of retail, office, hotel and mixed-use facilities and every kind of HVAC, plumbing, electrical and elevator systems. Before that, he was a design engineer at Jaros, Baum & Bolles. He has a B.S. in mathematics from SUNY Buffalo, an M.S. in mechanical engineering from New Jersey Institute of Technology and was a graduate student at Princeton and Johns Hopkins Universities. An ASHRAE Fellow, Larry chaired IAQ 2007 Healthy and Sustainable Buildings, is past chair of ASHRAE's Environmental Health Committee, a member of the Maryland Department of the Environment Air Quality Control Advisory Committee and is past chair of the American Society of Mechanical Engineers (ASME) Baltimore Section. He currently serves as vice-chair of SSPC 55, Thermal Environmental Conditions for Human Comfort. Larry has published technical articles on air quality, energy use, systems design, and building operations, and he has spoken about these subjects to ASHRAE, BOMA, AIA, Centers for Disease Control, American Bar Association, ASTM, and numerous other technical, scientific, government and industry organizations.

Hot Products from ASHRAE

Latest Edition of Standard 90.1 Now Available as a Redline



**Priced from \$135 (Members Pay \$115)
Available now in I-P or SI units**

Use the redline to instantly identify updates in the 2013 revision of Standard 90.1.

This expanded document compares the 2013 edition to 2010, ensuring you know exactly what changes have been made from one edition to the next.

It's an indispensable reference for engineers and other professionals involved in the design of buildings and building systems. Select the redline upgrade in print or digital format to receive two documents; the clean, active version of the standard and the redline version.

About Standard 90.1-2013: *Energy Standard for Buildings Except Low-Rise Residential Buildings* (ANSI approved; IES co-sponsored)

provides the minimum requirements for energy-efficient design of most buildings. Learn more

About Redlines: A redline document is a quick, easy way to compare all the changes between the active standard and the previous version. Redlines allow users to instantly identify additions, deletions, and other formatting and content changes. Learn more

Visit www.ashrae.org/bookstore to learn more about this and other outstanding ASHRAE publications!

The 2013-2014 Directory is Available!

The latest edition of the Directory of Associations, Consulting Firms, and Manufacturers' Representatives in the Philadelphia Area is available.

It sells for \$23 each.

Send your check to :

Emily Albert, Philadelphia Chapter ASHRAE,
994 Old Eagle School Rd. , Suite 1019, Wayne, PA 19087.

If you prefer to pay by credit card, please call Emily
at 610-971-2169 or email her at Emily@mmco1.com.

Order your copy today!

PECO Smart Ideas for Business Programs

The PECO Smart Equipment Incentives and PECO Smart Construction programs re-launched with new incentives and benefits. Businesses, government agencies, non-profits and institutions are all eligible for incentives to help offset the capital cost of energy-efficient design, improvements and equipment upgrades that provide immediate energy savings and space enhancements.

There are a wide variety of incentives available. You must submit a pre-application before your project begins to reserve the incentives.

Lighting:

PECO incentives are available for energy-efficient upgrades to indoor, outdoor and garage lighting systems, and for the addition of lighting controls. Incentives cover CFL and linear fluorescent lighting, metal halides, induction, LED general lighting, LED exit signs and lighting controls.

HVAC:

PECO incentives are available for upgrades to HVAC systems, which not only can save energy but also can improve air quality and working conditions. This includes incentives for high-efficiency air conditioners, heat pumps, packaged terminal units, hotel occupancy sensors and energy management systems. Chillers incentives are provided under the custom category shown below.

Variable Speed/Frequency Drives:

These drives optimize the speed and frequency at which motors operate and can provide significant energy savings. PECO incentives are available for drives installed on HVAC fans, chilled water pumps, heat pump water heaters, kitchen exhaust fans, process motors and screw air compressors.

Refrigeration and Food Service

Integral to many establishments from warehouses and supermarkets to restaurants, PECO provides incentives for a wide range of refrigeration and food service measures.

Custom Measures

PECO can provide incentives for equipment and energy-efficiency upgrades designed specifically for your business. Contact us to see if your energy-efficiency solutions qualify.

For more information, call 1-888-5-PECO-SAVE (1-888-573-2672) or visit www.peco.com/SmartIdeas.



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
P 610-971-2169
F 610-971-4859

Click [here](http://phila.ashraechapters.org) to visit
our web site at:

<http://phila.ashraechapters.org>

Republication of material
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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:

Hope Silverman
P 610-971-2169
hope@mmco1.com

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

New Associates/Members

Joshua Williams
Arnold Lockstein
Christopher Stratemeyer
Megan Ferguson
Gregory Klidonas



MEMBERSHIP ADVANCEMENT

If you are currently an ASHRAE associate member, becoming a full-member is easier than you think! The following count toward the required **12-points** to advance to full-membership status. You must update your ASHRAE online biography and send an email to membership@ashrae.org to advance.

Non-accredited degree = 4 points

Accredited degree = 6 points

PE = 4 points

Industry experience = 1 point/year

