American Society of Heating , Refrigerating, and Air-Conditioning Engineers

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QUAKER CITY CLIMATE

Philadelphia Chapter

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The Union League

140 South Broad Street
Philadelphia, PA 19102
215-563-6500
www.unionleague.org

Dinner Fees are based on online reservations and prepayment ($45 without an online reservation):

- Philadelphia Chapter Members: $30
- ASHRAE Members - Non-Chapter Members : $40
- Non- ASHRAE Member : $40
- Young Engineers (35 and under): $25
- Students: $10

The Legal Hot Potato: Assuming and Shifting Design Liability in Traditional and Modern Construction Delivery Methods

Thursday, December 8, 2011

Breakfast Meeting

Presented by

Jeff Rosenfeld
Partner
Harrison Law Group

Registration Begins: 7:00am
Breakfast Served: 7:30am
Presentation: 8:00am–9:00am

Click here for to Register

Presentation Summary

This lecture will present various construction delivery methods, i.e. traditional plan and spec, design-build, building information modeling, and ConsensusDOCS construction contracts. The various methods in which design liability is assumed and shifted through contracts and in practice will be discussed and tips will be provided as to how not to be left holding the bag when design defects are discovered during or after construction.

Union League Dress Code

Business casual attire is required for ladies and gentlemen. Gentlemen may wear a collared shirt and pressed slacks; turtleneck and mock-turtleneck shirts may be worn when accompanied by a suit jacket or sport coat. Comparable attire is required for women. The Union League reserves the right to refuse admittance to anyone not adhering to the dress code.

For directions and parking information, check The Union League's web site at www.unionleague.org.

To learn more about our presenter, Jeff Rosenfeld, go to page 3.

2011- 2012

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Casey Younkins

President's Message

November is behind us and I hope you enjoyed the Thanksgiving holiday with friends and family. Our November meeting drew a great crowd and we received some very informative information from ASHRAE Distinguished Lecture Dr Wei Sun during the Seminar and Dinner meeting presentations.

Our next program will be a Breakfast meeting held Thursday December 8th at The Union League. The presentation will feature Jeff Rosenfeld from the Harrison Law Group discussing "The Legal Hot Potato: Assuming and Shifting Design Liability in Traditional and Modern Construction Delivery Methods". Our theme will be membership promotion so encourage friends and colleagues that are not presently members to sign-up and discover what ASHRAE is all about. If you are currently not a member but would like to join, please contact Kevin Goodwin at kevin.goodwin@siemens.com. He will be more than happy to assist you in any way for your membership.

I missed seeing all of you at the November meeting. I was participating in the 2012 Delaware Valley Engineer of the Year Election. I was nominating our very own ASHRAE member Jim Lill. The candidates in the running who were nominated by their engineering societies for 2012 Delaware Valley Engineer of the Year are as follows:

- Timothy H. Haahs, PE, AIA
- James K. Lill, PE
- Christine Volkay-Hilditch, PE

The Engineer of the Year is elected by representatives of the professional and technical societies in the Delaware Valley and past Engineers of the Year.

Each society in the ten county area (Bucks, Chester, Delaware, Montgomery and Philadelphia counties in Pennsylvania and Burlington, Camden, Gloucester, Mercer and Salem counties in New Jersey) is entitled to appoint delegates and alternates to the election. The number of delegates allowed is based on the count of organization members. We had myself, Brian Guckin and Matt Loftus as voting members for our Chapter. Congratulations to the ultimate winner, Timothy H Haahs, PE, AIA.

See you at the next meeting!

Best Regards,
Bob Finkboner
Philadelphia Chapter President
c021@ashrae.net

December Breakfast Meeting
Speaker Bio

Jeff Rosenfeld
Partner, Harrison Law Group

Jeff Rosenfeld received his Bachelor of Science in Journalism from Northwestern University's Medill School of Journalism in 1991. He attended law school at the University of Maryland School of Law in Baltimore, Maryland, where he received his law degree in 1994. In June 2000, Jeff joined Harrison Law Group and is now a Partner in the firm's Baltimore office. Since joining the firm, Jeff has represented owners, general contractors, subcontractors, and sureties on issues involving acceleration, impact and delay claims, actual and constructive suspensions of work, terminations for default and convenience, change order, extra work and force account disputes, latent defect, workmanship and warranty claims, requests for equitable adjustments, payment and performance bond claims, mechanics' liens, insurance claims and disputes, prompt payment and conditional payment disputes, defective, incomplete or conflicting specifications, differing site conditions, construction and design defects, and bid protests. Jeff has been involved in an array of construction projects ranging from oil/gas refineries and power plants, colleges and universities, post offices, police stations, commercial distribution warehouses, stadiums, high-rise hotels and resorts, multi-family housing, commercial office buildings, retail complexes, residential and commercial swimming pools, highways, fiber optic and underground utility networks, golf courses, correctional facilities, movie theaters, parking garages, and residential and commercial condominiums.

High-Performance Building Design Professional (HBDP) Certification

Applying innovative technology to create energy-efficient and sustainable buildings is essential for saving money and increasing profitability. Demonstrate your firm's and your personal commitment to superior building design and performance by employing engineers who have earned ASHRAE's HBDP certification.

The HBDP certification demonstrates a well-rounded understanding of how HVAC+R design is integrated into high-performance buildings to achieve sustainable design in new and existing buildings. ASHRAE has developed the HBDP certification program with input from the United States Green Building Council (USGBC), Green Building Initiative (GBI), Illuminating Engineering Society (IES), and the Mechanical Contractors' Association of America (MCAA).

The exam is available on computer at proctored testing centers through Applied Measurement Professionals, Inc., which has testing centers in Center City Philadelphia, Wilmington, DE and Robbinsville, NJ.

This is in addition to the other five certification programs currently available:

- Building Energy Modeling Professional;
- Healthcare Facility Design Professional;
- Building Energy Assessment Professional;
- Commissioning Process Management Professional;
- Operations and Performance Management Professional.

Additional information is available on the ASHRAE Website at www.ashrae.org/certification. Or you can email the Philadelphia Chapter Technology Transfer Chair (Mark Maguire) at c021bog5@ashrae.net.

Chapter Technology Award Competition 2012

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 Chapter Level competition in March 2012 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.

Additional information is available at ashrae.org/publications/detail/14704 or by contacting Mark Maguire, the Philadelphia Chapter Technology Transfer Chair (c021bog5@ashrae.net).

Speaking at K-12 Schools

This year ASHRAE is strongly encouraging members to speak at K-12 schools about STEM (science, technology, engineering and mathematics). The national ASHRAE website has lots of ideas and tips under the “Student Zone” to help. If you have spoken at a school or are planning to do so this year, please let us know since the ASHRAE headquarters are trying to track members’ efforts. If you are interested in learning more about speaking or doing activities at a school, just let us know. We’d be glad to help!

Ashley Lester
Student Activities
c021sec@ashrae.net

Visit our web site at

http://phila.ashraechapters.org

For Presentation Archives, Announcements, Jobs/Resumés, Education Updates, and more!

PHILADELPHIA CHAPTER PROGRAMS CALENDAR 2011-2012

Date	Location	Topic	Theme	Joint Meeting
12/8/2011	Union League (Breakfast Meeting)	Contract Documents - presented by Jeff Rosenfeld of the Harrison Law Group		
1/31/2012	Wells Fargo Center	Flyers vs Winnipeg Jets		
2/16/2012	Dave & Buster's	Hydronic Balancing presented by Bill England of Flow Design, Inc.	Student Night & YEA	
3/15/2012	Fisher's Tudor House	TBD presented by Dr. Kishor Khankari, PhD, ASHRAE Distinguished Lecturer, of Syska Hennessy Group	Trade Show	SMCA
4/19/2012	Holiday Inn	TBD	Refrigeration	RSES
5/17/2012	Holiday Inn	Dealing with Dampers - Design and Code Issues presented by Mark Jelinske of Cator-Ruma Associates	Past President's Night	
7/TBD/2012	Northampton Valley CC	Golf Outing		

*** Program calendar is subject to change. Please refer to ASHRAE Philadelphia Website for up to date information.*

Building Energy Modeling Professional (BEMP) Certification

Many architects and building owners are inexperienced with using energy modeling as a tool in building design to help in the energy efficiency decision-making process. ASHRAE's BEMP certification program assesses an individual's ability to evaluate, choose, use, calibrate and interpret the results of energy modeling software for building and systems energy performance.

BEMP certification demonstrates a well-rounded understanding of the building energy modeling process, including defining the project, choosing the correct modeling program, incorporating important aspects of the building being modeled, and interpreting the results of the simulation. The certification was developed in collaboration with the US affiliate of the International Building Performance Simulation Association (IBPSA-USA) and the Illuminating Engineering Society (IES).

The exam is available on computer at proctored testing centers through Applied Measurement Professionals, Inc., which has testing centers in Center City Philadelphia, Wilmington, DE and Robbinsville, NJ.

This is in addition to the other five certification programs currently available:

- High-Performance Building Design Professional;
- Healthcare Facility Design Professional;
- Building Energy Assessment Professional;
- Commissioning Process Management Professional;
- Operations and Performance Management Professional.

Additional information is available on the ASHRAE web site at www.ashrae.org/certification. Or you can email the Philadelphia Chapter Technology Transfer Chair (Mark Maguire) at c021bog5@ashrae.net.

Milton Garland and Refrigeration Comfort Cooling Award Competitions - 2012

ASHRAE offers two competition-based awards encouraging the design of innovative refrigeration systems. 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 2012.

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. Additional information on this competition is available at ashrae.org/members/page/1692.

The Refrigeration Comfort Cooling Award competition is open for the design of mechanical refrigeration machinery for human comfort applications. Additional information on this competition is available at www.ashrae.org/members/page/comfortcooling.

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, Chapter Technology Transfer Chair at c021bog5@ashrae.net.

2011-2012 Directories are Available Now!

The 2011-2012 Philadelphia Area Directory—Associations, Consulting Firms, and Manufacturers' Representatives is in stock. It sells for $23 each. Payment should be sent with your order to:

Philadelphia Chapter ASHRAE
994 Old Eagle School Road
Suite 1019
Wayne, PA 19087-1866

Rather pay by credit card? Call Emily at 610-971-2169.

This article was submitted by Phil Greco of Coward Environmental, a representative of HVAC products. Articles highlighting novel HVAC technologies should be submitted to Chapter Technology Transfer Committee Chair Mark Maguire (c021cttc@ashrae.net) for consideration in future newsletters.

Ultra Violet Lights for Coil Cleaning for K-12 Classrooms

Poor indoor environments in schools influence the health performance and attendance of students. Many existing school space conditioning systems have dirty cooling coils, drain pans and plenums that have been fouled by the growth of microorganisms including viruses, bacteria and yeasts and molds. Air passing over dirty coils, drain pans and plenums is likely to be contaminated and could fail to provide the indoor air quality that can produce optimal student and teacher performance. Microorganism growth can also increase air-flow resistance, and reduce heat transfer, lowering the capacity and energy efficiency of the cooling system. Manually cleaning the coils is a laborious process that only temporarily removes contaminants.

Using ultraviolet germicidal irradiation, produced by lamps designed specifically for this purpose, can provide continuous, cost-effective coil cleaning. These lamps are designed to emit radiation in the wavelength of 253.7 nanometers that provides the greatest disinfection ability.

The range of 200 to 280 nm is the “C” range of ultraviolet radiation, hence the term UVC. The radiation is absorbed by the DNA molecule of the microorganism, producing mutation and deactivation. Thinner walled viruses are most readily deactivated, followed by bacteria and then fungi.

What are the benefits?

• Indoor air quality may be improved since the coils that are continuously cleaned by UVC are thus no longer an incubation site for microorganisms. Air flowing through the coils is not contaminated, resulting in cleaner air being delivered to the classroom.

• Maintenance benefits may accrue from use of UVC lights to keep coils continuously clean, avoiding the laborious coil cleaning actions that will otherwise be required to return coils to a clean condition.

• Energy benefits may be provided by ultraviolet lighting that cleans cooling coils, reducing pressure drop, improving heat transfer and increasing system capacity, resulting in overall cooling energy savings.

What are the maintenance issues?

An effective traditional coil cleaning program cleans the coils three to four times per year. Use of UVC lamps can eliminate the need for these costly, laborious cleaning treatments that create system downtime and use chemicals, biocides or pressure washing. Mechanical or chemical washing may also damage coils.

UVC lamps should be inspected to see if they are dirty and cleaned on a regular basis, as needed. Some installations have a view port to permit visual observation of the lamps, without entering the air handling unit. The frequency of cleaning of the UVC lamps depends on the level of filtration and whether the lamps are upstream or downstream of the filter. Some practitioners suggest that if lamps are installed downstream of an effective filter, the lamps will not need to be cleaned at all before they need to be replaced. To clean the lamps, they can be wiped with a soft lint-free cloth (when the lamps are “off”) moistened with isopropyl alcohol or glass cleaner, to assure that the lamps are operating at optimal efficiency. Lamps lose their efficacy with age and are generally replaced annually or whenever the output falls below 70% of the initial output.

Click here to read the entire article.

Local 420 Provides Tour to ASHRAE Philadelphia Members

Twenty ASHRAE Philadelphia chapter members accepted the offer to receive a “behind-the-scenes” tour of the Steamfitters Local 420 training center in Northeast Philadelphia on Saturday, November 5. The half-day workshop consisted of presentations of the areas used for training and certifying journeymen and apprentices in B31.1 and B31.9 welding, medical gas systems, brazing, instrumentation and refrigeration equipment service.

Steve Sweeney (training director at the Local), Mark Rogers (president of the Mechanical Contractors Association of America), Tim Brink (executive vice president of the Mechanical and Service Contractors Association) and Jim Gaffney (president of the Mechanical Contractors Association of Eastern Pennsylvania) introduced the extensive training program that apprentices and journeymen experience.

Vince Parme (technical development manager at Burns Mechanical and a Local 420 instructor) demonstrated the training members receive in 2-d Cad, building information modeling (BIM) and integrated project delivery (IPD) and their potential for improving the construction delivery model.

Attendees came away impressed with the extent and quality of training that Local 420 members receive. ASHRAE appreciates the tour that Local 420 assembled.

Attendees at the Local 420 tour included (from left to right): John MacKenzie, Ben Jados, Phil Vozza, and Nick Gmitter

November Seminar and Meeting Recap

The ASHRAE Philadelphia Chapter presented a three-hour seminar on November 16 for 20 attendees before the dinner meeting on “Introduction to Healthcare and Laboratory HVAC”.

Wei Sun, PE presented introductory lab and healthcare HVAC design concepts and opportunities for sustainable design now available for these building types.

That evening, Wei presented at our monthly dinner meeting on “HVAC Systems Design for Airborne Infection Control Spaces in Healthcare Facilities”.

Thanks to Wei for presenting. Please look in the *Climate* and our web site for future educational offerings.

Jared Johnson, Vice President of the Philadelphia Chapter, presents Wei Sun, PE, with a Liberty Bell as thanks for his presentations on November 16.

ASHRAE's HVAC Design Essentials

INTENSIVE 3-Day Workshop

Real-world HVAC Design Skills You Can Use Today

ASHRAE created the HVAC Design Essential Workshop to provide intensive, practical training for HVAC designers and others I nvolved in the delivery of HVAC services. Developed by industry-leading professionals, this workshop provides you with the fundamental and technical aspects of HVAC design in commercial buildings.

In three days, you will gain practical skills and knowledge in designing, installing and maintaining HVAC systems that can be put to immediate use. The workshop provides real-world example of HVAC systems, including calculations of heating and cooling loads, ventilation and diffuser selection using the newly renovated ASHRAE Headquarters building as a living lab. Engineered drawings of the ASHRAE Headquarters renovations will be incorporated to expose you to plan reading and graphical understanding of system design.

WORKSHOP TOPICS:

- Fundamentals
- Heating/Cooling Load Calculation
- System Selections
- Common System and Components
- Cooling System
- Basic Design of Hydronic Systems
- Basic Design of Air Systems
- Control/BAS Commissioning
- Sustainable Design
- Project Management and Other Soft Skills

Early Bird Special Register by Dec. 16th and SAVE $50!

Julia Keen, Ph.D, P.E., ASHRAE Member, HBDP

link to bio

Joel Primeau, P. Eng ASHRAE Member, HBDP, LEED AP

link to bio

WHO SHOULD ATTEND

Professionals at:

- Mechanical design firms
- Architectural firms
- Mechanical consulting firms
- Facility management departments
- Sales engineering firms
- Utility companies

When: January 11-13, 2012
Where:
ASHRAE Foundation Learning Center, Atlanta, GA
Cost: $1,189 (ASHRAE Member: $939)

BONUS!
ENROLL 3 OR MORE PARTICIPANTS FROM THE SAME COMPANY AND SAVE!

REGISTER HERE

The Philadelphia Chapter
of the
American Society of
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and Air Conditioning
Engineers, Inc.

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NOTICE

On January 7, 2010 the Legislature enacted and the Governor signed into law P.L. 2009, C. 294 which requires Professional Engineers licensed in New Jersey to complete continuing education. The effective date of the new law is January 12, 2011. At this time, the State Board of Professional Engineers and Land Surveyors ("Board") is working on proposed regulations to provide guidance and clarification to its licensees and interested parties. This Notice is intended to provide information about the continuing professional competency requirements.

• A licensee shall complete not more than 24 continuing professional competency credits related to the practice of Professional Engineering in every biennial license renewal cycle, 2 of which shall be in professional practice ethics.

• The Board does not have a process in place to approve educational programs and providers ·at this time. However, the Board is working on proposed regulations to address these matters.

• A licensee is not required to acquire continuing professional competency credits until January 12, 2011. However, the Board anticipates that a current licensee shall be required to obtain 15 continuing professional competency credits, 2 of which shall be in professional practice ethics, on or before April 30, 2012 to meet the requirements for the 2012-2014 biennial renewal period.

• The Board anticipates that for the 2014-2016 biennial renewal period, and every 2 years thereafter, a licensee shall be required to complete 24 continuing professional competency credits, 2 of which shall be in professional practice ethics. http://www.njleg.state.nj. us/2008/Bills/PL09/294.HTM

New Members

Edwin James Allan (Associate)
Dean Kaplan (Associate)
Jim Johnston (Associate)
Aaron Price (Associate)
Cole Bauer (Member)
Madhur Behl (Student)
Shawn David border (Student)