



# QUAKER CITY CLIMATE

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### Holiday Inn

400 Arch Street  
Philadelphia, PA 19106  
(215) 244-9777

For Directions : [Click Here](#)

Free parking on site

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

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

## VARIABLE PRIMARY FLOW CHILLED WATER SYSTEMS IT'S PAST PRESIDENT'S NIGHT

Our next meeting is scheduled for Thursday, May 12, 2011 at The Holiday Inn. The event schedule is as follows :

- [Seminar](#)  
1:30pm-4:30pm
- Social Hour with Cash Bar  
5:00pm-6:00pm
- Dinner  
6:00pm-6:30pm
- Presentation  
6:30pm-7:30pm

[Registration](#)

### Dinner Presentation Overview:

Variable primary flow is being adopted in chilled water system design with increasing frequency as a lower cost, more efficient alternative to primary/secondary design that is not as susceptible to low delta T syndrome. Subtopics include a review of variable primary flow and primary/secondary system types; causes and effects of low delta T syndrome and potential remedies; design considerations for variable primary flow, and, comparisons of variable primary flow and primary/secondary flow taken from case study and research literature.

### Seminar Overview:

During the 1980s and 1990s, cool thermal energy storage (TES) was a key technology in US utility demand-side management (DSM) programs. Interest in TES declined steeply as incentives disappeared during utility deregulation. Today, the focus of design has shifted from energy cost savings toward sustainability and it is reasonable to ask whether TES has anything to offer in this environment. This presentation will review the essentials of cool thermal energy storage and examine its relevance to sustainable design. Specific issues examined will include the impact of TES on site and source energy consumption, the economic case for TES without the incentives of the DSM era and the role of TES in achieving net zero energy buildings and communities.

*The seminar is sponsored by Tozour Energy Systems.*

### Presenter's Biography

William Bahnfleth is Professor and Director of the Indoor Environment Center in the Department of Architectural Engineering at the Pennsylvania State University (Penn State) in University Park, PA, where he has been employed since 1994. Previously, he was a Senior Consultant for ZBA, Inc. in Cincinnati, OH and a Principal Investigator at the U.S. Army Construction Engineering Research Laboratory in Champaign, IL. He holds BS, MS, and PhD degrees in Mechanical Engineering from the University of Illinois, where he also earned an undergraduate degree in music (pipe organ performance), and is a registered professional engineer.

At Penn State, Dr. Bahnfleth teaches undergraduate courses in HVAC fundamentals and controls and graduate courses in chilled water systems, hot water and steam systems, and indoor air quality. His research interests cover a wide variety of indoor environmental control topics, including chilled water pumping systems, stratified thermal energy storage, protection of building occupants from indoor bioaerosol releases, ultraviolet germicidal irradiation systems, and others. He is the author or co-author of more than 100 technical papers and 11 books and book chapters. He consults regularly on the design of chilled water thermal energy storage systems and has been involved in more than 20 projects world-wide. Dr. Bahnfleth is member of the American Society of Mechanical Engineers (ASME), Sigma Xi, American Society for Engineering Education (ASEE), Society of Building Science Educators (SBSE), and a Fellow of the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE). He has served ASHRAE in a variety of capacities, including Student Branch Advisor, Chapter Governor, Technical Committee and Standing Committee Chair, and as a Director-at-Large and is currently Society Vice President. He is the recipient of a 1st place ASHRAE Technology Award, Transactions Paper Award, and Distinguished

## 2010- 2011

### President

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Bob Finkboner

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### Chapter Historian

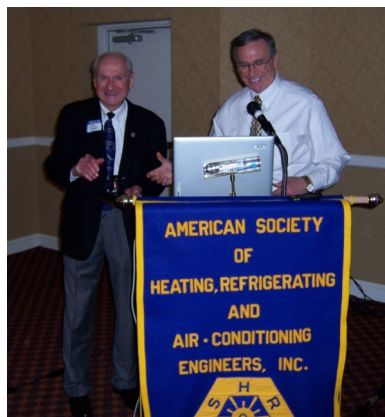
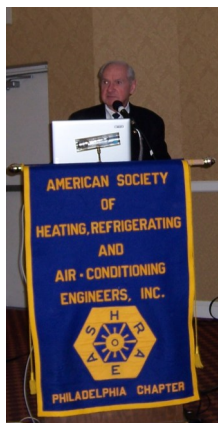
Jared Johnson, PE

### Young Engineers in ASHRAE

Ashley Lester

## APRIL MEETING:

## SIMPLICITY: THE HALMARK OF DESIGN / STUDENT NIGHT



## PRESIDENT'S MESSAGE

Our May dinner meeting will be our last dinner meeting until we start again in September. As is typical for our May meeting, we encourage the attendance of past chapter presidents and also vote on the officer and board member candidates for the next program year.

In April we had a very good afternoon technical seminar the economics of energy conservation followed by our dinner meeting. Both the seminar and dinner meeting presentation were given by past ASHRAE President Bill Coad, PE who is a distinguished lecturer in several technical areas. We had almost 25 people for the afternoon seminar and received positive feedback on the program.

We are continuing this trend in May with an afternoon seminar on thermal energy storage followed by a dinner meeting presentation on variable primary chilled water systems. Both are presented by ASHRAE Vice President and Penn State Professor Bill Bahnfleth, PhD, PE. Mark Maguire and Eric Zanolini from our technology transfer committee have made a strong push this year to organize technical seminars in advance of dinner meetings. We plan to continue this in the next program year as we see that our ability to offer high quality, non-commercial technical seminars is of value to the membership. With the continuing education requirements for maintaining engineering licenses in many states, and the rapid pace of HVAC+R technology developments this is an area where we can offer value to the Delaware Valley engineering community.

Best Regards,  
John Pardekooper  
215-436-5802  
c21@ashrae.net

# ASHRAE PHILADELPHIA CHAPTER ANNUAL GOLF TOURNAMENT

Friday, June 3, 2011

Northampton Valley Country Club

299 Newtown-Richboro Road Richboro, PA 18954

<http://www.nvcc.com/>



## Prizes to Include

- First Place
- Second Place
- Third Place
- Longest Drive
- Closest to the Pin

**Lunch/Registration: 12:00 PM**

**Shotgun Start: 1:00 PM**

**Format: Scramble**

**Dinner/Awards: Following Golf**

Please contact Jim Piscopo at

[jpiscopo@aeceng.net](mailto:jpiscopo@aeceng.net) with any questions

## SPONSORSHIP OPPORTUNITIES

**Single Hole Sponsor - \$200**

**Two Hole Sponsor - \$300**

**Three Hole Sponsor - \$450**

## REGISTRATION DETAILS

**Golf, Lunch & Dinner - \$125 ea**

**Dinner Only - \$35 ea**

## Online Registration:

<http://tinyurl.com/ashraephilagolf>

**If you would prefer not to register online please contact Jim Piscopo to arrange for payment.**



# ASHRAE Philadelphia Chapter

## Cool Thermal Energy Storage in the Era of Sustainability

*a half-day workshop on Thursday, May 12 (1:30–4:30pm) at the Holiday Inn (400 Arch Street in Philadelphia). The seminar cost is \$95 and certificates of attendance will be provide as an aid in recordkeeping for continuing education requirements.*

During the 1980s and 1990s, cool thermal energy storage (TES) was a key technology in US utility demand-side management (DSM) programs. Interest in TES declined steeply as incentives disappeared during utility deregulation. Today, the focus of design has shifted from energy cost savings toward sustainability and it is reasonable to ask whether TES has anything to offer in this environment. This presentation will review the essentials of cool thermal energy storage and examine its relevance to sustainable design. Specific issues examined will include the impact of TES on site and source energy consumption, the economic case for TES without the incentives of the DSM era and the role of TES in achieving net zero energy buildings and communities.

*Course Instructor – Bill Bahnfleth, PhD, PE, FASHRAE*

**William P. Bahnfleth, Ph.D., P.E.**, is an associate professor in the Department of Architectural Engineering at The Pennsylvania State University - University Park. He holds a doctorate in Mechanical Engineering from the University of Illinois at Urbana-Champaign and is a Registered Professional Engineer. He has more than 15 years of experience as a consulting engineer, researcher and educator. Dr. Bahnfleth has been a member of ASHRAE since 1981.

Sponsored by Tozour Energy Systems

## Chapter Technology Transfer Committee

### ASHRAE MILTON W. GARLAND AWARD

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 2011.

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, Chapter Transfer Technology Chair (c021bog4@ashrae.net).

### ASHRAE Offers Certification:

ASHRAE has developed the Building Energy Assessment Professional (BEAP) certification program in collaboration with representatives from ASHRAE's Building Energy Quotient (bEQ) program, Illuminating Engineering Society – North America (IESNA), National Institute of Building Sciences (NIBS), Sheet Metal and Air-Conditioning Contractors' National Association (SMACNA), and Testing, Adjusting and Balancing Bureau (TABB). The purpose of this program is to certify individuals' ability to audit and analyze residential, commercial, and industrial buildings including determining project scope, collecting data, analyzing building performance, interpreting results, evaluating alternatives, submitting recommendations for energy conservation measures, and assisting with the implementation of these recommendations.

Applications for certification are on the ASHRAE Website (ashrae.org). The exam assesses mastery of a significant body of knowledge that has been identified by industry practitioners and subject matter experts as reflecting current best practices. The detailed content outline is included in the Candidate Guidebook, which is also available on the ASHRAE Website.

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 five certification programs currently available:

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

Additional information is available on the ASHRAE Website at [www.ashrae.org/certification](http://www.ashrae.org/certification). Or you can email the Philadelphia Chapter Technology Transfer Chair (Mark Maguire) at [c021bog4@ashrae.net](mailto:c021bog4@ashrae.net).

## SEMINAR RECAP:

The Philadelphia chapter presented a three-hour seminar on "Energy Considerations in Engineering Design" on April 13 before the dinner meeting.

Bill Coad, former ASHRAE Society president presented on the history and economics of energy conservation decisions to 24 attendees.

Thanks to Bill Coad for presenting and look in the Climate for future educational offerings.

## PHILADELPHIA CHAPTER PROGRAMS CALENDAR 2010-2011

Date	Location	Topic	Theme	Joint Meeting
5/12/2011	Holiday Inn (4th & Arch)	<u>Thermal Storage Seminar presented by ASHRAE Vice President and Distiguated Lecturer William Bahnfleth, PhD, PE</u>		
5/12/2011	Holiday Inn (4th & Arch)	<u>Variable Primary Flow Chilled Water Systems, presented by ASHRAE Vice President and Distiguated Lecturer William Bahnfleth, PhD, PE</u>	Past President's Night	
5/19/2011	CBP	<u>YEA Phillies Night</u>	YEA	
6/3/2011	NVCC	<u>Golf Outing</u>		
TBD	TBD	2011-2012 Planning Meeting		

*\*\* Program calendar is subject to change. Please refer to [ASHRAE Philadelphia Website](#) for up to date infor-*

### CHAPTER TECHNOLOGY AWARD COMPETITION 2011

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 2011 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/technologyawards](http://ashrae.org/technologyawards).

Mark M. Maguire, PE

Chapter Chair – Technology Transfer

c021bog4@ashrae.net

The Philadelphia  
Chapter of the  
American Society of  
Heating, Refrigerating  
and Air Conditioning  
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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:

Matthew Trinsey  
Clive Samuels & Associates, Inc.  
1 Independence Way  
Princeton, NJ 08540  
(P) 609-627-7983  
[c021ne@ashrae.net](mailto:c021ne@ashrae.net)

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

## YOUNG ENGINEERS IN ASHRAE

### YEA Phillies Night

Come out Thursday May 19th for the 2nd YEA Phillies Night! From 5pm-7pm, hang out before the game and enjoy food, drinks and free give aways provided by APC by Schneider Electric, the event sponsor. Meet up at the APC Logo'd RV in the Holiday Inn parking lot (900 Packer Ave). The game starts at 7:05pm so enjoy a fun evening watching the Phillies play the Rookies! If you did not receive a Cvent Invite, you can [register here](#).



Young Engineers in ASHRAE



### NEW MEMEBERS

#### Members

John Gillan

#### Associate Members

Thomas Genevie

Ryan Bellevou

Chris Ivanoski

James Faust

Brian Friebe

David Potchak

Michael Chropka

#### Student Members

Brandi Heard-Hendricks

Grigoriy Dimant

Michael Massimi

James Piscopo, PE

Vice President

Membership Promotion Chair

[Online Membership Application](#)

### STUDENT ACTIVITIES



This is a picture of the Temple, Drexel and Widener students at the winter meeting with ASHRAE's president.

Upper Row – Mike Witkowski, Jim Achey, Lynn Bellenger (ASHRAE President), Alfred Uzokwe, Bill Mahon, Greg Greenly

Bottom Row - Rebecca Hagel, Mike Snader, Peter Attalla