



# NorthEastAire

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

XXXXVII No.6

February 2015

Editor: Stephanie Lafontaine 857-221-5942

## 2014-2015 Officers



Dan Diorio  
President



Stacie Suh  
President-Elect



William Tang  
Vice President /  
Treasurer



Mike Gilroy  
Secretary

## Table of Contents

Monthly Meeting	1
President's Message	2
February Meeting Info	3
Employment Ads	3
Editor's Note	3
January Meeting Recap	4
PAOE	4
Research Promotion	5
Upcoming Events	5
Behind the Scenes	6
CTTC	7
Grassroots Gov't Affairs	8-10
Historian	10
Student Activities	11
YEA	11
Society News	12-13
Meeting Schedule	14
Officer & Committee List	15
ASHRAE Research	16
Contributor Listing	

## February Meeting

Tuesday, February 10, 2015

### Main Meeting:

## Air to Air Energy Recovery - Beyond the Basics

### Tech Session:

## DOAS & VRF Work- Arounds in eQuest

## Membership Promotion, Research Promotion & YEA Night

Please see page 3 for more information.

### Meeting Manager:

Teri Shannon  
[tshannon@dac-hvac.com](mailto:tshannon@dac-hvac.com)

### Where:

Embassy Suites, Waltham

### Meal:

Caesar Salad  
Chicken Picatta  
Red Velvet Cake

### Time:

5:15—6:00	Tech Session
5:30—6:00	Social/Registration
6:00—6:45	Dinner
6:45—8:00	Main Program

### Cost:

ASHRAE Boston Members:	\$40
Non-Members / Walk-Ins:	\$50
ASHRAE Student Members:	Free

Please register online whether you are pre-paying with credit card or PayPal or paying with cash or check at the meeting at [www.ashraeboston.org](http://www.ashraeboston.org). RSVP by 12:00 PM on Thursday, February 5th.

Please note during registration if you plan to attend the Tech Session.

Please notify Erin Popa if you would like at vegetarian meal.

Credit cards are no longer accepted at the meetings.

Contact Erin Popa if you would like a vegetarian meal.

If you have any questions, you may contact Erin Popa, Attendance Chair, at [ashraebostonattendace@outlook.com](mailto:ashraebostonattendace@outlook.com).

Thank You



## **PRESIDENT'S MESSAGE**

*By: Dan Diorio*

Well, I haven't been impeached...yet. After my colossal brain lapse nearly lead to a cancellation of the January meeting, I'm surprised! But seriously, I owe a lot of special thanks to several folks that made the meeting happen. If you missed the meeting and my explanation, I'll give you the short version. Back in August, Embassy Suites asked me if we could move our January meeting to the second Wednesday instead of our usual Tuesday night. At the time, it was early enough in our planning process, so I agreed. The problem was, I never changed it in our schedule so we always had the January meeting on the usual Tuesday night. When Bill Garvey called the hotel on Tuesday morning to confirm our headcount, he was surprised to find out that the hotel wasn't expecting us that night! Knowing it was impossible for us to move the event given that Society President, Tom Phoenix, was flying into Boston for the meeting, Bill and our point person from the hotel scrambled to find room for our program. So, many thanks go to Bill for his quick thinking, and to the hotel for their willingness to accommodate us. This clearly put them in a tough position from a service perspective and caused us to have dinner served later than usual. For that, I once again thank the meeting attendees and speakers for being flexible. I'll try and make sure I have the correct dates for the upcoming meetings!

Once the meeting got rolling, it seemed to go off without a hitch. Society President, Tom Phoenix did a wonderful job presenting his Presidential Message to the audience. He provided an interesting perspective of his ASHRAE vision and information on current happenings at a Society level. It was an honor to, once again, have a Society President fly to Boston to speak to our Chapter. Please read more about the meeting Mark Leonard's write up.

My President's Message in the November newsletter began outlining the Presidential Award of Excellence (PAOE) - a point system that all ASHRAE Chapters use to guide them through their year. I discussed Boston's place in Region I and the competition for the annual Golden Gavel Award. I went on to highlight the five committees that accumulate points throughout the year that make up our chapter total. Last month, the article detailed how the Society President's theme provides for some of the types of activities that will result in PAOE points.

Finally, I would like to make everyone aware of the types of items that accumulate PAOE points across the various committees, aside from the Presidential Theme items.

*Chapter Operations* – Points are awarded for Chapter Operations related to the overall conduct of chapter activities. Sections focus on chapter meetings, communications, YEA activities, honors and awards, and sustainability activities.

*Chapter Technology Transfer* – The transfer of technology to the members is the key to a successful chapter with well attended monthly meetings. Points are awarded in various categories for the types of meetings that are held, from a technical perspective.

*Student Activities* – The involvement of students is highly encouraged by ASHRAE at a Society level. The organization of local activities for students, college and K-12, provides opportunity for PAOE point accumulation. Points can also be earned by student attendance at meetings.

*Membership Promotion* – The majority of available PAOE points for this committee are related to signing on new members and retaining existing members. Goals are set at the beginning of the ASHRAE year that must be met by the chapter.

*Research Promotion* – This committee also gathers points as a function of their performance and the amount of money that is raised for ASHRAE research.

*Historical* – The historical committee works to accumulate points for maintaining, displaying, and collecting historical items. Points are also awarded for publishing interviews with current and past Presidents.

As we pass through January into February, the push for PAOE points for the Boston Chapter becomes critical. As Chapter President, I keep a close watch on all of the committees to assure that we are doing everything we can to run the chapter in order to provide a beneficial experience for the members. This type of operational mentality will also result in a successful chapter from a PAOE standpoint.

Please email me at [dan.diorio@bc.edu](mailto:dan.diorio@bc.edu) at any time!

## February Meeting Information



**Main Program – Air to Air Energy Recovery - Beyond the Basics**

**Main Program Information –** The Main Program will discuss how to evaluate and design air-to-air energy recovery systems, including; plate heat exchangers, heat pipes including heat recovery and wrap around precool reheat, sensible and enthalpy rotary wheels, pumped glycol loop systems and intelligent energy recovery systems. Sizing, layout, comparative economics, and controls will be reviewed.

**Meet the Speaker - Rick McGinley - Principal, DAC Sales,** Rick McGinley co-founded DAC Sales in 1991, and has over 35 years of HVAC engineering and sales experience. Rick specializes in air-to-air energy recovery, custom air handling, variable air volume systems, humidification systems and critical environment ventilation equipment.

Before starting DAC Sales, Rick worked his way from manager of John Oldach Associates in Portland to the president of Oldach Northeast. He was the president of an energy audit and service company and the Solar Program manager of the Maine Office of Energy Resources. Rick is a graduate of Syracuse University.

**Tech Session – DOAS & VRF Work-Arounds in eQuest**

**Tech Session Information -** eQuest is the most commonly used hourly simulation package in New England by non-academic energy modeling teams. While eQuest is able to handle many common HVAC systems, it cannot directly model whole -building VRF systems or DOAS systems with energy recovery. This session will present eQuest methodologies and reporting best practices that have been developed by members of the local energy modeling community with input from representatives of the local utilities. It is likely that the shortcomings of the DOAS modeling process may have negatively impacted hundreds of models performed over the past decade. The information presented during this 45 minute technical session will be useful to energy modelers as well as their clients.

**Meet the Speaker - Eric Studer - President, TNZ Energy Consulting, Inc.** Eric has 14 years supporting design teams and incentive programs; is an ASHRAE member and current Treasurer of IBPSA Boston.

### **ASHRAE Boston Chapter – Employment Ads**

The NorthEastAire is published monthly, September through June. It is posted on the Chapter website at [www.ashraeboston.org](http://www.ashraeboston.org). A link is sent each month to all members of the Chapter, currently over 1000.

**Newsletter Rate:** \$200 for 1/4 page, \$400 for 1/2 page, \$800 for full page

**Website Rate:** \$300 per calendar month

**Format:** Word format, company logos in .jpg or .gif

**Deadline for March Newsletter: February 6, 2015**

Any questions, please contact Stephanie Lafontaine, Newsletter Editor at 857-221-5942 or [northeastaire@gmail.com](mailto:northeastaire@gmail.com)



Materials for the March newsletter are due by **February 6, 2015**. Please submit employment/want ads in .pdf, .doc or .jpg format. A company logo may also be included. Please send me any ideas you would like to share or include in next month's issue. Please see the website for additional information [www.ashraeboston.org](http://www.ashraeboston.org).

### **EDITOR'S NOTE**

**By: Stephanie Lafontaine**

For more information, please call or e-mail me at: (857) 221-5942,  
[northeastaire@gmail.com](mailto:northeastaire@gmail.com)



## January Meeting Recap

*By: Mark Leonard*

The Boston ASHRAE Chapter welcomed a very special guest to last month's meeting. ASHRAE Society President, Thomas H. Phoenix, drew a crowd as the main speaker for the evening. The evening featured a technical session prior to the main program and also recognized the Past Presidents in attendance.

Last month's social gathering and technical session were one of the same as both crowds gathered on the mezzanine level at the Embassy Suites. The focus of the technical session was on the NADCA Standard for Assessment, Cleaning, & Restoration of HVAC Systems presented by Mr. Michael Vinick. Mr. Vinick is currently the President of Duct & Vent Cleaning of America, Inc. and is actively involved in the NADCA where he is the 1<sup>st</sup> Vice President. His presentation focused on the latest advancements in duct cleaning including the minimum performance and requirements that a duct system must adhere to in accordance with the NADCA.

As the technical session wrapped up, Chapter President, Dan Diorio, made his general announcements and individually recognized the Past Presidents in attendance. After a group photo including the Past Presidents, active Chapter President and the Society President, Mr. Diorio introduced Mr. Thomas Phoenix. Mr. Phoenix gave a theme speech on success and how it revolves around People, Passion and Performance. His message to the audience was that everything, including volunteer organizations, revolves around people. If the people involved are passionate about what they do, then it naturally ignites energy. The punchline of Mr. Phoenix's speech was that passionate people will deliver superior performance, which in turn will lead to success. He also announced a potential first of a kind merger between ASHRAE Standard 189 and the International Energy Code Council (IECC) that is pending approval. This merger is due to be approved at the end of January in Chicago at the 2015 ASHRAE Winter Conference.

With a new year, the Boston Chapter tried something new to end the evening. At the conclusion of the main presentation, the program concluded with dinner and conversation.



### **Presidential Award of Excellence Boston Chapter - 2014-2015**

Chapter Members	Membership Promotion Points	Student Activities Points	Research Promotion Points	Historical Points	Chapter Organization Points	Chapter Technology Transfer Points	Grassroots Government Affairs Points	Chapter PAOE Point Totals
<b>1029</b>	785	805	475	0	915	975	75	4030



## RESEARCH PROMOTION

By: Teri Shannon

Our Chapter's RP goal this year is \$21,800. Currently we are ahead of where we were last year at this time, but still only about 33% of our goal. We need your assistance in reaching our goal, so please consider a donation to ASHRAE RP.

Remember that 100% of the money donated to RP goes to Research!

As a reminder, ASHRAE is qualified as 501(c)3 and all contributions are tax deductible. Any amount is appreciated; for donors who give \$100 or more, you will be listed in the annual ASHRAE Honor Roll of Investors publication. You can donate online at [www.ashrae.org/contribute](http://www.ashrae.org/contribute), or contact myself.

### Donate Now!

Please fill out the form in this newsletter and mail it to me – we look forward to your Honor Roll level donation of \$100. You can go to the ASHRAE Boston website at [www.ashraeboston.org](http://www.ashraeboston.org). Click on the donation form under Research & Promotion. You can also donate online at [www.ashrae.org/contribute](http://www.ashrae.org/contribute).

Mailing Address: ASHRAE Boston Chapter  
C/o Teri Shannon  
PO Box 576  
W. Kennebunk, ME 04094

Please donate today help us reach our goal.

### Donor Recognition

I would like to give a big thank you to the following members for making donations to RP in December:

Mr. Gary Elovitz  
Mr. Brian Austin



## **ASHRAE BOSTON UPCOMING EVENTS**

Visit [www.ashraeboston.org/upcoming-events/announcements.html](http://www.ashraeboston.org/upcoming-events/announcements.html) for more information.

### **January Meeting**

When: January 13, 2015  
Where: Embassy Suites, Waltham

### **February Meeting**

When: February 10, 2015  
Where: Embassy Suites, Waltham

### **March Meeting**

When: March 4, 2015  
Where: Embassy Suites, Waltham

### **April Meeting**

When: April 14, 2015  
Where: Embassy Suites, Waltham

## **BOSTON AREA UPCOMING EVENTS**

### **Sustainable Performance Institute**

<http://www.sustainable-performance.org/>

### **AFE Chapter 74-Worcester Area-Central MA**

<http://chapters.afe.org/chaptersnew/index.cfm?chapterIndex=2>

### **USGBC Massachusetts Chapter**

[www.usgbcma.org](http://www.usgbcma.org)

### **IFMA Boston Chapter**

[www.ifmaboston.org/](http://www.ifmaboston.org/)

### **AEE New England Chapter**

[www.aeenewengland.org/](http://www.aeenewengland.org/)

### **IBPSA Boston Chapter**

<http://ibpsa-boston.com/>



## **BOSTON CHAPTER - BEHIND THE SCENES**

*By: Mike Gilroy*

*Every month, prior to the Main Program, the Boston Chapter of ASHRAE's Board of Governors meet to discuss Chapter business. This article, based on the Secretary Meeting Minutes, shall serve as an informative summary for members as to what is happening behind the scenes of the Boston Chapter. Please feel free to contact me with any questions or for additional information.*

Meeting Date: January 13, 2015

The Chapter was delighted to host ASHRAE Society President Thomas Phoenix at the January meeting and invited him to the BOG meeting to provide insight and advice.

### **Review of December and November Meeting Minutes**

Each Board of Governors meeting begins with a review and eventual vote to approve the previous month's meeting minutes. Any items that required follow up are updated and closed or are determined to be carried forward once again. Meeting minutes from both November and December were approved at the January BOG meeting.

### **2014/2015 Schedule**

Openings in the schedule and opportunities to improve the year's schedule were discussed. Previous openings in March and April tech sessions have been tentatively resolved. A March technical session will cover heat pipe technologies and applications. In April, an energy code training session held at National Grid in Waltham, MA will take the place of a technical session. The training session will highlight mechanical sections of the code and take place from 2pm-5pm on the afternoon of the April meeting.

### **Additional Miscellaneous Items Discussed**

The following miscellaneous items were briefly discussed:

- **Meeting Registration Software** –Erin Popa utilized the Vertical Response software for attendance and meeting registration at January's meeting. The evaluation period of the software will continue through February.
- **Storage of Historical items** – The Chapter will obtain a climate controlled storage unit for the storage of historical items. The location of the storage unit will be in a facility in Brighton, MA, less than a mile from BR+A's new office and former office.
- **Boston Chapter Member Survey** – A survey of 5-10 questions is being created by officers to garner feedback from chapter members on Chapter operations, meeting topics and ways to improve.
- **Local Brewery Tour** – Last year's Harpoon Brewery tour was deemed a success. However, the price to reserve a tour at Harpoon has increased substantially from last year's reservation cost. Due to the increase, other local breweries will be contacted for potential tours.



**CTTC**

*By: Mike Gilroy*

## **Low-grade waste heat regenerates ammonia battery**

UNIVERSITY PARK, Pa. -- An efficient method to harvest low-grade waste heat as electricity may be possible using reversible ammonia batteries, according to Penn State engineers.

"The use of waste heat for power production would allow additional electricity generation without any added consumption of fossil fuels," said [Bruce E. Logan](#), Evan Pugh Professor and Kappe Professor of [Environmental Engineering](#). "Thermally regenerative batteries are a carbon-neutral way to store and convert waste heat into electricity with potentially lower cost than solid-state devices."

Low-grade waste heat is an artifact of many energy-generating methods. In automobiles, waste heat generated in winter is diverted to run the vehicle heating system, but in the summer, that same waste heat must be dissipated to the environment. Coal, nuclear and other power plants require high heat to produce electricity, but after producing electricity the excess waste heat is routed to cooling towers to dissipate. Many industrial sites, geothermal sources or solar generating plants also create low-grade heat that is wasted.

The researchers want to take this waste heat and capture it to produce more power. Other researchers have tried a variety of methods, but most produce too little power to be workable, or they cannot provide a continuous resource. Logan and his team are using a thermally regenerated ammonia-based battery that consists of copper electrodes with ammonia added only to the anolyte -- the electrolyte surrounding the anode.

"The battery will run until the reaction uses up the ammonia needed for complex formation in the electrolyte near the anode or depletes the copper ions in the electrolyte near the cathode," said Fang Zhang, postdoctoral fellow in environmental engineering. "Then the reaction stops."

This type of battery would be useless as a constant source of electricity if the reaction were not regenerative. Using low-grade waste heat from an outside source, the researchers distill ammonia from the effluent left in the battery anolyte and then recharge it into the original cathode chamber of the battery.

The chamber with the ammonia now becomes the anode chamber and copper is re-deposited on the electrode in the other chamber, now the cathode, but formerly the anode. The researchers switch ammonia back and forth between the two chambers, maintaining the amount of copper on the electrodes.

"Here we present a highly efficient, inexpensive and scalable ammonia-based thermally regenerative battery where electrical current is produced from the formation of copper ammonia complex," the researchers report in the current issue of *Energy and Environmental Science*. They note that the ammonia liquid stream can convert the thermal energy to electrical energy in the battery. "When needed, the battery can be discharged so that the stored chemical energy is effectively converted to electrical power."

One of the problems with previous methods was that the amount of energy produced in, for example, a system using salty and less salty water to generate electricity, was too small relative to the amount of water used. The thermally regenerative ammonia battery system can convert about 29 percent of the chemical energy in the battery to electricity and can be greatly improved with future optimization.

The researchers produced a power density of about 60 watts per square meter over multiple cycles, which is six to 10 times higher than the power density produced by other liquid-based thermal-electric energy conversion systems. The researchers note that the current thermally regenerative ammonia battery is not optimized, so that tinkering with the battery could both produce more power and reduce the cost of operating the batteries.

The researchers were able to increase power density by increasing the number of batteries, so that this method is scalable to something that might be commercially attractive.

Other researchers on this project were Jia Liu, postdoctoral fellow and Wulin Yang, graduate student, both in environmental engineering. The researchers have filed a preliminary patent on this work.

The King Abdullah University of Science and Technology supported this work.



## **Grassroots Government Affairs**

*By: Steve Rosen*

**ASHRAE Government Affairs Update, 1/2/2015**

### **Federal Activities**

#### **ASHRAE's Government Affairs in 2014: A Year of Many Accomplishments with Much to Look Forward to in 2015**

When it comes to government affairs, this past year has been one of ASHRAE's busiest on record, and a big thanks goes out to all of the volunteers, staff, and friends in other associations that have helped make 2014 so successful. The Society has used its vast volunteer-developed and driven technical expertise to help policymakers at all levels of government craft better legislation and regulations by informing them of the great work of our members, including our standards, guidelines, professional certifications, research, publications, conferences, and related activities. We've played key roles on many bills that were considered, passed, and in some cases, signed into law. The Society has also commented on several proposed federal rulemakings and information requests.

The work of the new (114<sup>th</sup>) Congress is already underway, with the first 100 days promising to be especially busy. At the same time, federal agencies will continue their rulemaking activities. Looking forward, ASHRAE is well-positioned to build on last year's accomplishments as we seek to fulfill our mission of advancing the arts and sciences of heating, ventilating, air conditioning and refrigerating to serve humanity and promote a sustainable world. Together, we are shaping tomorrow's built environment today.

Below is a snapshot of what we've accomplished in 2014:

- Submitted comments on the following rulemakings:
  - U.S. Department of Energy (DOE):
    - AHRI Petition for Repeal of Final Rule for Test Procedures for Residential and Commercial Water Heaters
    - Energy Conservation Standards for Small, Large, and Very Large Air-Cooled Commercial Package Air Conditioning and Heating Equipment
    - Request for Information on Planning for the 2017 Solar Decathlon and Beyond
  - U.S. Environmental Protection Agency (EPA):
    - Proposed Rule for Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Generating Units
  - U.S. Department of Housing and Urban Development (HUD):
    - Updating Energy Efficiency Standard for Multifamily Homes to 90.1-2007
- U.S. Agency for Agency for International Development (USAID):
  - Request for Information on the Partnership on Climate Data and Information on Resilient Development
- Nominated ASHRAE Presidential Member Kent Peterson to the U.S. General Services Administration's Green Building Advisory Committee (GBAC).
  - Kent has been accepted to another term on the GBAC.
- Helped draft and organize NGO and Capitol Hill support for passage of the following bills:
  - Energy Efficiency Improvement Act (formerly known as the Better Buildings Act) (H.R.2126)
    - Passed by the House by a vote of 375 to 36.
    - Considered, and nearly passed by the Senate.
  - Streamlining Energy Efficiency for Schools Act (H.R.4092)
    - Passed the House by unanimous consent.
  - Energy Savings and Industrial Competitiveness Act (S.2074, S.2272)
    - Considered and nearly passed in the Senate, twice.

Continued on next page...

...Continued from previous page

- Energy Savings and Industrial Competitiveness Act (S.2074, S.2272)
  - Considered and nearly passed in the Senate, twice.
- National Defense Authorization Act (NDAA) for Fiscal Year 2015 (H.R.3979)
  - Signed into law by President Obama.
  - Worked with several stakeholder organizations, including the National Association of Home Builders (NAHB), House and Senate Armed Services Committee and Committee members to support inclusion of a reference to ICC 700 National Green Building Standard in the report for the NDAA for Fiscal Year 2015.
- Supported the following bills during the drafting phase and/or following introduction:
  - Workforce Innovation and Opportunity Act (H.R.803)
    - Signed into law by President Obama.
  - Energy Savings Through Public-Private Partnerships Act (H.R.2689, S.1308)
    - Passed by the House Energy and Commerce Committee.
  - Energy Efficient Government Technology Act (H.R.540, S. 1261)
    - Incorporated into the Energy Efficiency Improvement Act (H.R.2126), which passed the House by a vote of 375 to 36.
  - A Bill To Encourage benchmarking and disclosure of energy information for commercial buildings (H.R.3820)
    - Incorporated into the Energy Efficiency Improvement Act (H.R.2126), which passed the House by a vote of 375 to 36.
- Access to Consumer Energy Information (“E-Access”) Act (H.R.5073)
- Property Assessment Protection Act (H.R.4285)
- Championed a sign-on letter to the Senate Appropriations Committee in support of building energy codes and standards in the Energy and Water Appropriations Bill for Fiscal Year 2015.
- Played a key role in organizing NGO and Capitol Hill opposition to building energy codes and standards language included in the report for the House Energy & Water Appropriations Bill for FY 2015.
- Working with NAHB, energy efficiency advocacy groups, technical societies, and Reps. Marsha Blackburn (R-TN) and Kurt Schrader (D-OR) to improve building energy codes and standards language in the Energy Savings and Building Efficiency Act (H.R.5027).
- Submitted a floor statement for Representative Rosa DeLauro (D-CT) on the release of the 2012 CBECS data.
- Submitted testimony to the Senate Committee on Homeland Security and Government Affairs for a hearing entitled “Examining Conference and Travel Spending Across the Federal Government”.
- Sent a letter to the House Energy and Commerce Committee supporting the Streamlining Energy Efficiency for Schools Act (H.R.4092).
- Sent a letter to the House Ways and Means Committee in support of the Mechanical Insulation Installation Incentive Act (H.R.184).
  - Issued Three Action Alerts:
    - Encouraging ASHRAE members to submit comments on DOE’s notice of proposed rulemaking on energy conservation standards for small, large, and very large air-cooled commercial package air conditioning and heating equipment.
    - Encouraging ASHRAE members to support passage in the Senate of the Energy Efficiency Improvement Act (H.R.2126).
    - Encouraging ASHRAE members to support inclusion of the reference to ICC 700 in the NDAA FY 2015 (H.R.3979).

Continued on next page...

Continued from previous page...

## GGAC Regional and Chapter Activities

### Government Activities Award Revised

Know an ASHRAE Champion? ASHRAE recognizes a member or team of members annually who excel in government activities at the Chapter level. Previously this award was to recognize a Chapter that excelled in government activities, however, the Grassroots Government Affairs Committee has changed the requirements so that individuals or a team of individuals, perhaps even from more than one Chapter, qualify for this Award.

### National Engineers Week Scheduled for Feb. 22-28, 2015

National Engineers Week (EWeek) has been scheduled for February 22-28, 2015. Founded in 1951, EWeek is dedicated to ensuring a diverse and well-educated future engineering workforce by increasing understanding of, and interest in, engineering and technology careers. EWeek is a formal coalition of more than 70 engineering, education and cultural societies, and more than 50 corporations and government agencies dedicated to raising public awareness of engineers' positive contributions to quality of life. EWeek urges recognition among parents, teachers and students of the importance of a technical education and a high level of math, science and technology literacy, and motivates youth to pursue engineering careers in order to provide a diverse and vigorous engineering workforce.

ASHRAE once again encourages its Chapters and members to promote EWeek by obtaining proclamations from federal, state and local governments recognizing this annual event.

Additional information on EWeek is available at <http://www.discovere.org/our-programs/engineers-week>.

Your Boston GGAC committee welcomes your suggestions for ASHRAE Boston EWeek events or applicants for the Government Activities Award!

Please contact Christine Reinders ([creinders@CANNONDESIGN.COM](mailto:creinders@CANNONDESIGN.COM)), Stacie Suh ([stacie@stebbinsduffy.com](mailto:stacie@stebbinsduffy.com)) or Steve Rosen ([srosen@vanderweil.com](mailto:srosen@vanderweil.com)).



## HISTORIAN COLUMN

*By: Eric Edman*



We have a temporary home for our historical artifacts at the Public Storage Facility in Brighton! This is great news for all of us. All 26 boxes of “stuff” are headed to this 5x10 storage space which is clean, dry and heated to preserve things well.

I would like to thank a great many of you who offered up ideas, contacts and other tips. I probably spent 3 days chasing people and talking to people to basically come back to the fact that nobody wants our old “stuff”. (It has to move from our offices as we are physically moving in February)

The ultimate goal will follow society requests to scan all this stuff and make it available electronically. Further details will be announced as they become determined through meetings.

We thank you all again for your assistance.



## STUDENT ACTIVITIES

*By: Dan Diorio*

Just three monthly meetings remain, so please be sure to register for them. We will be closing out the Boston Chapter meeting season with some strong technical content. Remember, student members attend and eat for free!

By now, your student chapter advisors should have received an invitation to an existing activity that I have been in the process of planning. I've recently completed a large and complicated mechanical project on campus that I believe you would be interested in seeing. We designed and built a brand new boiler plant into a dormitory that had previously been fed its heating hot water, underground, from an adjacent building. Now this building has its own standalone heating plant, with brand new high efficiency condensing boilers. The concern of aging underground piping has gone away. The activity, which will include a short presentation on the project followed by a tour of the new plant, can be scheduled at your convenience. I realize that the spring semester can be busy for students – so I'm flexible!

The Student Activities Committee needs YOUR help. I'd like to add 2 members to the committee and mold someone into taking over as the Chair next year. Please contact me at any time via email at [dan.diorio@bc.edu](mailto:dan.diorio@bc.edu) or stop by and say hello at one of the monthly meetings.



## YEA

*By: Justin Molé*



Hello YEA members! I hope everyone has been doing well. Our 3<sup>rd</sup> YEA event is currently planned for late mid-February (Hint: Corn hole & Beer), so be on the lookout for an email, we've had great turnouts for our first two events and hope to keep it going.

Looking to improve your HVAC technical skills? Applications are currently open for the HVAC Design Essentials Training Scholarship. YEA offers one full scholarship for attendance to the HVAC Design: Level I – Essentials training. Application deadline for the March 16-18 training in Atlanta is Jan. 19, and the deadline for the June 15-17 training in Atlanta is April 20. <https://www.ashrae.org/membership--conferences/yea-scholarship-for-hvac-design-essentials-workshop>



The next YEA Leadership Weekend will be this spring in San Diego, CA March 27-29, 2015. I highly encourage anyone interested to attend, it is a great experience. Registration is now open for the event. There are scholarships available; apply ASAP, as these weekends fill up very quickly! <https://www.ashrae.org/membership--conferences/young-engineers-in-ashrae/yea-leadership-weekend>

Did you attend the ASHRAE winter conference in Chicago Jan. 24-28? Share your thoughts on the experience with the rest of us! You can contact me at [jmole@cannondesign.com](mailto:jmole@cannondesign.com)

# Society news

## **ASHRAE Announces Call for Papers for 2016 Winter Conference, January 23-27, Orlando**

ATLANTA – ASHRAE has announced a call for papers for its 2016 Winter Conference in Orlando, Fla., Jan. 23-27.

"The 2016 ASHRAE Winter Conference will have a fresh feel with new tracks focused on design-build practices and residential systems. We'll continue our emphasis on energy efficiency and sustainability while addressing current engineering and construction practices outside of the U.S. and Canada. We're also taking one of the most attended conference program styles and making an entire track out of debates. I think we'll be offering our attendees some great programs that align well with current trends in HVAC&R engineering," Jennifer Leach, conference chair, said.

The increasing choice of **Design Build** project delivery brings the contractor and designer together on the same team. The track explores the challenges and benefits, highlights successful projects and addresses several topics, including contracts and alternative design and construction processes.

The **Modern Residential Systems Track** presents energy efficient solutions and the latest advances ranging from glazing to water heating to lighting for the residential market.

The inventive aspect of engineering is covered in the **Cutting Edge Technologies Track**, exploring the efforts to achieve net zero energy buildings. Papers and programs address recent advances in HVAC&R system design, equipment and construction techniques including the responsible use of resources and energy recovery.

With ingenuity comes the debate as to the best practices where there may be divergent methods for accomplishing the same task. **The Great Debate Track** seeks to bring a lively discussion in a point, counterpoint format on the "best" approach for a certain project.

In addition, the 2016 ASHRAE Winter Conference also seeks papers addressing advances and practices across HVAC&R systems, equipment, fundamentals and applications, especially for the **International Design Track**.

ASHRAE offers two types of paper submissions:

- Conference Paper Abstracts due March 23, 2015. Upon acceptance, papers will be due July 6, 2015. These "final" papers undergo a single-blind review, are submitted as a PDF and have an eight single-spaced page maximum length.
- Full Technical Papers due April 20, 2015. Papers submitted for review must be both technically accurate and clearly written. These papers undergo a rigorous double-blind review and can be a maximum of 30 double-spaced pages.

To submit a Conference paper abstract or a technical paper and for more information about the tracks, go to [www.ashrae.org/orlando](http://www.ashrae.org/orlando).

The 2016 Winter ASHRAE Conference takes place at the Hilton Orlando.

Held in conjunction with the 2016 Winter Conference is the ASHRAE co-sponsored International Air-Conditioning, Heating, Refrigerating Exposition, Jan. 25-27, 2016 Orlando Convention Center. The AHR Expo will attract some 60,000 professionals and the ASHRAE Conference will attract some 4,000 attendees and meeting participants.

ASHRAE, founded in 1894, is a global society advancing human well-being through sustainable technology for the built environment. The Society and its more than 50,000 members worldwide focus on building systems, energy efficiency, indoor air quality, refrigeration and sustainability. Through research, standards writing, publishing, certification and continuing education, ASHRAE shapes tomorrow's built environment today. More information can be found at [www.ashrae.org/news](http://www.ashrae.org/news).

## Society news

### **ASHRAE Certification Programs**

#### **BEMP Practice Exam Now Available**

ASHRAE has launched a practice exam for the Building Energy Modeling Professional (BEMP) certification. The practice exam is designed to be similar in content and difficulty to the actual certification exam. It is a low-cost, online tool for limited self-assessment with a score report overview of performance at the end of the exam. Practice exams are already in place for the BEAP, CPMP and HFDP certifications. Practice exams for the HBDP and OPMP certifications are under development and should be launched later this year.

Visit [www.ashrae.org/BEMP](http://www.ashrae.org/BEMP) to learn more about the BEMP practice exam.

Visit [www.ashrae.org/certification](http://www.ashrae.org/certification) to learn more about ASHRAE certifications.

### **New Publications from ASHRAE**

**ASHRAE, a leader in building information technology, develops publications that impact every facet of the environment, both indoors and out.**

#### **Data Center Design and Operation – ASHRAE Datacom Series CD 4<sup>th</sup> Ed.**



This CD-ROM presents the full text of all eleven ASHRAE Datacom Series publications and Standard 127-2012 in fully searchable and printable PDF format. Authored by ASHRAE Technical Committee 9.9, the Datacom Series provides comprehensive treatment of data center cooling, energy efficiency, and related subjects.

\$289 (\$246 ASHRAE Member) / CD / 2014

#### **ASHRAE Reference Offers Design Guidance on Healthcare HVAC Systems**



The second edition of *HVAC Design Manual for Hospitals and Clinics* provides in-depth design recommendations based on best practices from consulting and hospital engineers, with a focus on presenting what's different about healthcare HVAC systems.

\$129 (\$109 ASHRAE Member) / 312 pages / 2013

Visit [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore) to learn more about these and other outstanding ASHRAE publications!

# Boston ASHRAE 2014 - 2015 Meeting Schedule

Date	Main Meeting/ Tech Session	Speaker	PDH Credits	Meeting Manager	Location/ Special Night
<b>September</b>  Tuesday, September 16, 2014	Tour—Conte Forum AC Upgrades & Expansion	Dan Diorio & Dave Trumble	N/A	Dan Diorio  <a href="mailto:dan.diorio@bc.edu">dan.diorio@bc.edu</a>	Boston College, Conte Forum, Chestnut Hill
<b>October</b>  Tuesday October 14, 2014	Retrofitting Mass Walls— Interior Retrofits vs. Exterior Retrofits	Joseph Lstiburek	TBD	Teri Shannon  <a href="mailto:tshannon@dac-hvac.com">tshannon@dac-hvac.com</a>	Embassy Suites, Waltham  HOF Induction, Student & Membership Promotion Night
<b>November</b>  Tuesday, November 11, 2014	Embedded Tube Radiant Cooling	Devin Abellon	TBD	Event Committee	Embassy Suites, Waltham  Research Promotion & Donor Recognition Night
<b>December</b>  Tuesday December 9, 2014	Mechanical Couplings Science	TBD	TBD	Event Committee	TBD  Joint Meeting with ASPE
<b>January</b>  Tuesday January 13, 2015	ASHRAE Society President	Thomas Phoenix	TBD	Darcy Carbone  <a href="mailto:dcarbone@stebbinsduffy.com">dcarbone@stebbinsduffy.com</a>	Embassy Suites, Waltham  Past President's & History Night
<b>February</b>  Tuesday February 10, 2015	Air to Air Energy Recovery - Beyond the Basics	Rick McGinley	TBD	Teri Shannon  <a href="mailto:tshannon@dac-hvac.com">tshannon@dac-hvac.com</a>	Embassy Suites, Waltham  Membership Promotion, Research Promotion & YEA Night
<b>March</b>  Wednesday March 4, 2015	Emerging Utility DSM, FCM and EE Practices	TBD	TBD	Event Committee	Embassy Suites, Waltham  Joint Meeting with AEE
<b>April</b>  Tuesday April 14, 2015	High Performance with Building Commissioning	Mike Eardley	TBD	Event Committee	Embassy Suites, Waltham  Student & YEA Night Joint Meeting with BSA
<b>May</b>  Tuesday May 12, 2015	Installation of Officers	N/A	N/A	Stacie Suh  <a href="mailto:Stacie@stebbinsduffy.com">Stacie@stebbinsduffy.com</a>	TBD
<b>June</b>  Monday June 1, 2015	Golf Outing	N/A	N/A	Bill Garvey  <a href="mailto:wgarv@aol.com">wgarv@aol.com</a>	Halifax Country Club, Halifax, MA  Research Promotion

## 2014-2015

# BOSTON CHAPTER OFFICERS, BOARD OF GOVERNORS & CHAIRPERSONS

### OFFICERS

President  
Daniel Diorio  
Boston College  
617-552-8772  
[dan.diorio@bc.edu](mailto:dan.diorio@bc.edu)

President-Elect  
Stacie Suh  
Stebbins Duffy, Inc.  
781-258-1002  
[Stacie@stebbinsduffy.com](mailto:Stacie@stebbinsduffy.com)

Vice President/Treasurer  
William Tang  
BR+A  
617-254-0016  
[wkt@brplusa.com](mailto:wkt@brplusa.com)

Secretary  
Mike Gilroy  
BR+A  
617-925-9255  
[mpg@brplusa.com](mailto:mpg@brplusa.com)

### BOARD OF GOVERNORS

2014 - 2017

Dan Carington  
BR+A  
617-925-8236  
[dpc@brplusa.com](mailto:dpc@brplusa.com)

William Garvey  
RDK Engineers  
857-221-5965  
[wgarvey@rdkengineers.com](mailto:wgarvey@rdkengineers.com)

Mark Leonard  
BR+A  
617-925-8322  
[mcl@brplusa.com](mailto:mcl@brplusa.com)

Teri Shannon  
DAC Sales  
207-985-0873  
[tshannon@dac-hvac.com](mailto:tshannon@dac-hvac.com)

2013-2016

Siobhan Carr  
MIT  
617-324-7268  
[siobhanc@mit.edu](mailto:siobhanc@mit.edu)

Mike Gilroy  
BR+A  
617-925-9255  
[mpg@brplusa.com](mailto:mpg@brplusa.com)

Stephen Nicholas  
Air Industries  
978-682-9993  
[snicholas@airinds.com](mailto:snicholas@airinds.com)

2012 - 2015

Darcy Carbone  
Stebbins Duffy, Inc.  
617-957-2567  
[dcarbone@stebbinsduffy.com](mailto:dcarbone@stebbinsduffy.com)

Pat Duffy  
BR+A  
[pjd@brplusa.com](mailto:pjd@brplusa.com)  
617-925-8253

Jim Liston  
BuroHappold  
[james.liston@burohappold.com](mailto:james.liston@burohappold.com)  
617-606-9120

Jeffrey H. Schultz  
EYP Architecture & Engineering  
617-385-9894  
[jschultz@eypae.com](mailto:jschultz@eypae.com)

### COMMITTEES

Attendance  
Erin Popa  
BR+A  
617-925-8205  
[epopa@brplusa.com](mailto:epopa@brplusa.com)

Chapter Program  
Daniel Diorio  
Boston College  
617-552-8772  
[dan.diorio@bc.edu](mailto:dan.diorio@bc.edu)

Chapter Technology Transfer  
Mike Gilroy  
BR+A  
617-925-9255  
[mpg@brplusa.com](mailto:mpg@brplusa.com)

CRC Alternate  
Stacie Suh  
Stebbins Duffy, Inc.  
781-258-1002  
[Stacie@stebbinsduffy.com](mailto:Stacie@stebbinsduffy.com)

CRC Delegate  
Daniel Diorio  
Boston College  
617-552-8772  
[dan.diorio@bc.edu](mailto:dan.diorio@bc.edu)

Golf Outing  
William Garvey  
RDK Engineers  
857-221-5965  
[wgarvey@rdkengineers.com](mailto:wgarvey@rdkengineers.com)

Grassroots Government Activities  
Steven Rosen  
Vanderweil Engineers  
617-956-4218  
[srosen@vanderweil.com](mailto:srosen@vanderweil.com)

Historian  
Eric Edman  
BR+A  
617-925-8325  
[eme@brplusa.com](mailto:eme@brplusa.com)

Honors & Awards  
Darcy Carbone  
Stebbins Duffy, Inc.  
617-957-2567  
[dcarbone@stebbinsduffy.com](mailto:dcarbone@stebbinsduffy.com)

Membership Promotion  
Dan Carington  
BR+A  
617-925-8236  
[dpc@brplusa.com](mailto:dpc@brplusa.com)

Nominating  
Bob Persechini  
RDK Engineers  
617-345-9885  
[rpersechini@rdkengineers.com](mailto:rpersechini@rdkengineers.com)

Research Promotion  
Teri Shannon  
DAC Sales  
207-985-0873  
[tshannon@dac-hvac.com](mailto:tshannon@dac-hvac.com)

NorthEastAire  
Stephanie Lafontaine  
RDK Engineers  
857-221-5942  
[slafontaine@rdkengineers.com](mailto:slafontaine@rdkengineers.com)

The New Product Show & Energy  
Show 2016  
Jeffrey Schultz  
EYP Architecture & Engineering  
617-385-9894  
[jschultz@eypae.com](mailto:jschultz@eypae.com)

Professional Development  
Steve Bosland  
EYP Architecture & Engineering  
617-305-9831  
[sbosland@eypae.com](mailto:sbosland@eypae.com)

Publicity  
Mark Leonard  
BR+A  
617-925-8322  
[mcl@brplusa.com](mailto:mcl@brplusa.com)

Refrigeration  
Steven Tafone  
Suffolk Construction  
978-774-1057  
[stafone@suffolkconstruction.com](mailto:stafone@suffolkconstruction.com)

Student Activities  
Daniel Diorio  
Boston College  
617-552-8772  
[dan.diorio@bc.edu](mailto:dan.diorio@bc.edu)

Sustainability  
Jim Armstrong  
Siemens Industry, Inc.  
781-774-8360  
[jarmstrong@siemens.com](mailto:jarmstrong@siemens.com)

Siobhan Carr  
MIT  
617-324-7268  
[siobhanc@mit.edu](mailto:siobhanc@mit.edu)

Website  
Steven Rosen  
Vanderweil Engineers  
617-956-4218  
[srosen@vanderweil.com](mailto:srosen@vanderweil.com)

YEA  
William Tang  
BR+A  
617-254-0016  
[wkt@brplusa.com](mailto:wkt@brplusa.com)  
  
Justin Molé  
Canon Design  
617-517-6272  
[jmole@cannondesign.com](mailto:jmole@cannondesign.com)

Investors  
Who Care  
About  
Tomorrow

# ASHRAE RESEARCH

## ASHRAE Boston Chapter Contributors

Allan E Ames  
 Brian Austin  
 David H Blum  
 Steven C Bosland  
 Henry P Breen, Jr, PE  
 Darcy A Carbone  
 John F Coffey, Jr  
 David A DeMoura, PE  
 Daniel P Diorio  
 Gary Elovitz  
 William J Garvey  
 John A Iacopucci  
 Michael P Gilroy

Robert J Persechini  
 William Schlageter, Jr.  
 Majid Seghatoleslami  
 Teri L Shannon  
 Gregory W Shenstone, PE  
 Stacie Suh  
 Steven Tafone  
 William K Tang  
 Jeffrey Zajac  
  
 Buckley Associates  
 Phoenix Controls Corp.  
 RDK Engineers

**CONTACT TERI SHANNON NOW!** at 207-985-0873 or [tshannon@dac-hvac.com](mailto:tshannon@dac-hvac.com)

✂

<p>Mail Check (Payable to "ASHRAE Research") to:          ASHRAE RESEARCH          DAC Sales          c/o Teri Shannon          PO Box 576          W. Kennebunk, ME 04094</p> <p>Name: _____</p> <p>Company: _____</p> <p>Address: _____</p> <p>TEL: _____</p>	<p><b>Your contribution puts us closer to achieving our goal. Please send what you can today!</b>          Individual contributions of \$100 or more and Corporate contributions of \$150 or more receive this year's Commemorative Coin and Honor Roll Contribution status.</p>
---	--

INDIVIDUAL	\$25.00	\$50.00	\$100.00	\$200.00	Other: _____
CORPORATE	\$250.00	\$500.00	\$1,000.00	\$2,000.00	Other: _____



**NorthEastAire**

ASHRAE - BOSTON CHAPTER

[www.ashraeboston.org](http://www.ashraeboston.org)

Stephanie Lafontaine  
 RDK Engineers  
 70 Fargo Street  
 Suite 800  
 Boston, MA 02210

ADDRESS SERVICE REQUESTED