November Meeting

Tuesday, November 10, 2015

Main Meeting:
Net Zero Commercial Buildings—How to Design and Maintain Indoor Air Quality

Tech Session:
Changing Refrigerant

Research Promotion Night & Donor Recognition Night

Joint Meeting with IAQA

Meeting Manager:
Mark Leonard
MCL@brplusa.com

Where:
Embassy Suites
Waltham, MA

Meal:
Vegetable Ravioli
Medallions of Beef Tenderloin Diane
Chocolate Decadence Cake w/ Berry Coulis

Time:
5:15 - 6:00
Technical Session
5:30 - 6:15
Social/Registration
5:15 - 6:15
Dinner
6:15 - 7:00
Announcements & Main Program
7:00 - 8:00

Cost:
ASHRAE Boston Members: $50
Non-Members / Walk-Ins: $60
ASHRAE Student Members with RSVP: Free

Please register online at www.ashraeboston.org. RSVP by 12:00 PM on Thursday, November 5, 2015
If you have any questions, you may contact Erin Popa, Attendance Chair, at ashraebostonattedance@outlook.com.

Thank You

Statements made in this publication are not expressions of the Society or of the Chapter and may not be reproduced without special permission of the Chapter.
ASHRAE Boston Chapter had its first main meeting at 101 Federal St in Boston. Our usual meetings for the past several years were held in Waltham, MA. We are very pleased let you know that the meeting in Boston was a success. We had a total of eleven (11) students who attended the meeting and over ninety people which consisted of both members and non-members. We have received great feedback from members who attended the meeting. One of the Management by Objectives (MBO) for Boston chapter, which was set by Region I Director/Regional Chair prior, was to have some of the main meetings in a Boston location. Please refer to the meeting recap section, written by Andrew Krenning, for details on the October meeting.

I would like to first thank Professor Per Heiselberg (Aalborg University) and Professor Bjarne Olesen (Technical University of Denmark) for a great presentation on Towards Zero Energy Building. Secondly, I would like to thank technical session speakers Guilherme Carrilho da Graça (University of Lisbon, Portugal) and Annamaria Belleri (EURAC, Italy).

I would like to also thank all attendees at the October meeting. Special thanks to Victaulic for sponsoring the social hour(s) at the October meeting. It was a great success.

Next month’s meeting will be held on November 10 at Embassy Suites in Waltham, MA. Please join us in welcoming main meeting speaker William Turner (Turner Building Science & Design, LLC ) and technical session speaker Steve Tafone. The main meeting is on Net zero buildings – How do you design and operate while still maintaining suitable indoor air quality and tech session is on Changing refrigerant. Hope to see you all at the November meeting! I encourage all members to bring along non-members to this event. We need your support to keep the Boston Chapter growing and to share the good news with our local community.

ASHRAE Boston chapter has made available corporate sponsorship opportunities. Please contact Will Tang at wtang@brplusa.com for more information. We look forward to your sponsorship, which will support the Boston chapter greatly. A huge “Thank you” goes out to Daikin, RDK Engineers, RenewAire, RG Vanderweil, Stebbins Duffy, Filter Sales & Service, Inc, R.T.Forbes Company and Victaulic who are already part of the sponsorship program and supporting the Boston Chapter.

I look forward to meeting all of you throughout the year. I would love to hear from you with any thoughts you might have regards to ASHRAE Boston Chapter. You can email me at stacie@stebbinsduffy.com

Thank you

Stacie Suh
ASHRAE Chapter President
November Meeting Information

TECH Session: Changing Refrigerant

**Speaker:** Steve Tafone

**TECH Speaker bio:**
Mr. Tafone has over 35 years of experience in the design, installation and troubleshooting HVAC systems. He is presently employed at Suffolk Construction Inc., a construction management firm, as Vice President of Engineering. He is a past president of the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) Boston's Chapter. Additionally, he has been teaching various technical courses for over 15 years. Mr. Tafone is a Registered Professional Engineer in MA & NY, has a CFC Universal Certification, LEED AP and holds a MA licenses as a Refrigeration Technician. He received his BSME from Pratt Institute.

MAIN MEETING:

**Title of presentation:** Session Title: Net zero buildings – How do you design and operate while still maintaining suitable indoor air quality.

**Description of presentation:** Net zero buildings and good Indoor Air Quality can be mutually compatible concepts. The session will focus on the basic principles that must be provided in both residential and commercial buildings to achieve this end. This year Mr. Turner's antique home, originally constructed in 1925, is the first in Maine to achieve the 1000 Home Challenge Energy Efficiency Criteria. Both his home and his office, which was constructed in 1993, are close to achieving a measured net-zero status. His latest personal project is the monitoring of his self-heating net zero garage and workshop.

**Speaker Bio:**

William Turner, MS, PE, CEO, Turner Building Science & Design, LLC located in Harrison.

Mr. Turner received his BS and MS in Engineering from Northeastern University and served for ten years on the research staff of Harvard University School of Public Health conducting air quality studies inside and outside of buildings evaluating multiple pollutants including second hand smoke and appliance emissions. Since then Mr. Turner has focused on “Building Science”, “Sustainability”, and “Building Forensic” issues including energy use, indoor air quality, moisture, high performance building design, zero-net design, building commissioning, and forensic evaluations. His experience includes rebuilding existing buildings and the design of new buildings. He has published and lectured extensively.
The ASHRAE Boston Chapter October meeting was held in downtown Boston at the Metro Meeting Center located on the 4th floor of 101 Federal Street. The Chapter meeting was preceded by a cocktail hour where chapter members and guests were able to network and catch up.

The formal chapter meeting was started by ASHRAE Boston President Stacie Suh who welcomed everyone to the first of multiple meetings to be held at the Metro Meeting Center. She talked about the upcoming chapter meetings and events that are planned for the year and urged everyone to check out the website at www.ashraeboston.org. Also, she announced that the ASHRAE Boston chapter is now on twitter, so please follow us at @ASHRAEboston.

Former ASHRAE Boston chapter President and current Research Promotion Chair Dan Diorio presented the Outstanding Member of the Year award. The award was given to Stephanie Lafontaine for her exceptional work and dedication to the chapter for the year of 2014-2015. Congratulations to Stephanie, as this award was well deserved for all the hard work and effort put towards the chapter and the NorthEastAire Newsletter.

The main presentation portion of the meeting was started by Bjarne Olesen, Professor at Technical University of Denmark on the topic of Zero Net Energy Buildings. Bjarne started with talking about the European and US actions towards zero energy buildings. He explained the need and steps for a comprehensive set of legislation to continue to enhance energy efficiency and push the industry in ZEB direction. Per Heiselberg, Professor Aalborg University, Denmark discussed the European definition of a net ZEB and how that differs from other parts of the world and what the impact is on the definition. He then discussed ways to reach zero energy buildings by decreasing energy demand, use of energy efficient building technology combined with renewable energy sources. The main presentation concluded with Bjarne talking about various projects around the world and how they were able to use different technology in order to achieve significant reductions in overall energy consumption.

A special thanks to Victaulic who sponsored the cocktails, and all the volunteers for helping arranging this great event at the Metro Meeting Center. Hope to see everyone at the November meeting in Waltham.
FREE SUNDAY RIVER & SUGARLOAF DISCOUNT SKI VOUCHERS, SAVE $19 PER ADULT TICKET

The Boston Chapter is participating in the Sunday River/Sugarloaf corporate voucher program again this year. Each voucher entitles you to purchase up to four discounted lift tickets [$70 Adults, $58 Teen, $48 Junior/Senior] at either ski resort by presenting an ASHRAE membership card, picture ID, and voucher. The regular prices are $89/$69/$59. Contact Ed Waldman, ewaldman@verizon.net, if you would like any vouchers. The voucher is a PDF that can be e-mailed to you, but the resorts have become stricter about showing your ASHRAE card when you purchase the tickets. There is no charge for the vouchers and there are no blackout dates. Complete rules below:

How To Use Vouchers

1. Bring your corporate voucher to any participating resorts ticket window.
2. Present your voucher, photo ID, and valid ASHRAE membership card to the ticket seller. In the absence of the individual member, immediate family members defined as spouse and children, must present some form of ASHRAE identification, plus a photo ID in order to receive the discount.

Each person expecting the corporate pricing must be present with the corporate voucher holder at the time of ticket purchase. The ticket seller will take the voucher in exchange for up to 4 lift tickets.

Presidential Award of Excellence

Boston Chapter - 2015-2016

<table>
<thead>
<tr>
<th>Chapter Members</th>
<th>Membership Promotion Points</th>
<th>Student Activities Points</th>
<th>Research Promotion Points</th>
<th>History Points</th>
<th>Chapter Organization Points</th>
<th>Chapter Technology Transfer Points</th>
<th>Grassroots Government Affairs Points</th>
<th>Chapter PAOE Point Totals</th>
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<tr>
<td>1040</td>
<td>375</td>
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Employment Ads

ASHRAE Boston Chapter – Employment Ads

The NorthEastAire is published monthly, September through June. It is posted on the Chapter website at 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 November Newsletter:** October 16, 2015

Any questions, please contact Deanna Adkison, Newsletter Editor at 617-535-8236 or northeastaire@gmail.com
Your Boston Chapter Webmaster welcomes your suggestions as we begin to redesign the ASHRAE Boston homepage!

We will be transitioning towards a new provider that will allow us to have one source management of our over 1,000 members in the Boston ASHRAE Chapter!

- add and/or import contacts to our membership database
- create and modify membership levels, fees and renewal policies
- manage events using the events module
- compose and send out email blasts to different member groups
- manage our finances

The new website will hopefully be live in January 2016!

As a reminder, visit www.ashraeboston.org/upcoming-events/announcements.html for more information.

### November Meeting
- When: November 10, 2015
- Where: Embassy Suites, Waltham

### December Meeting
- When: December 8, 2015
- Where: Embassy Suites, Waltham

### January Meeting
- When: January 19, 2016
- Where: Embassy Suites, Waltham

### February Meeting
- When: February 9, 2016
- Where: Metro Meeting Centers, Boston

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**ASHRAE BOSTON UPCOMING EVENTS**

**BOSTON AREA UPCOMING EVENTS**

- Sustainable Performance Institute

- AFE Chapter 74-Worcester Area-Central MA
  - [http://chapters.afe.org/chaptersnew/index.cfm?chapterIndex=2](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
Institute Kicks Off Effort to Develop National BIM Guideline for Owners

The National Institute of Building Sciences (NIBS) is kicking off development of a new guideline to help building owners and their design teams utilize building information modeling (BIM) during the building design, construction and operations process and to better support owners' performance requirements.

The National BIM Guideline for Owners, to be developed under the auspices of NIBS, The American Institute of Architects (AIA), Building Owners and Managers Association International (BOMA), International Facility Management Association (IFMA) and ASHRAE, will provide uniformity in the delivery of BIM projects to federal, state and local government building owners, as well as institutional and commercial building owners.

The guideline is intended for adoption by the building owner to provide a documented process and procedure for the owner’s design team to follow in order to produce a standard set of BIM documents during the design and construction of the facility, and for maintenance and operations of the facility upon handoff. The new guideline will be based on the foreign, federal, state and local BIM guides that currently exist, but geared to a generic facility with uniform requirements for use by a variety of government, institutional and commercial building owners. It will reference a range of documents and practices, including those contained within the National BIM Standard-United States® developed by one of NIBS’ own councils, the buildingSMART alliance®.

The recently established development committee consists of about a dozen BIM experts representing important stakeholder groups, including building owners, architects, engineers, constructors and facility managers. The first task of the committee is to review the relevant and applicable BIM guides currently available, and then proceed to developing the guideline itself. An advisory committee composed of federal, state and local government representatives who developed existing BIM guides will review the effort and provide input on an on-going basis. Once the guideline is complete, the development committee will submit the draft guideline to the buildingSMART alliance membership for review and input. The final guideline will then be submitted to the appropriate standards developing organization (SDO) to go through its consensus process for joint publication as an industry standard.

The goal is for federal, state and local governments and other institutional and commercial building owners to adopt the National BIM Guideline for Owners as the standard procedure for their design/BIM teams to follow, helping building owners unlock the value and opportunity to utilize BIM across the life cycle of a building. Establishing criteria, specifications and expectations in the design and construction process will help owners capture the full value of investing in BIM, while providing a uniform approach for institutional and commercial building owners to achieve consistent BIM requirements for their facilities.
HISTORICAL NEWS

By: Eric Edman

We could use a moment of your time.

If any of you have a thought about something that has historical significance, would you send us an email please (with the topic/item/person).

We are quite fortunate to have so many historically significant items in our area, along with many “firsts”- that we need to document some of this within our industry. We would like your suggestions, and we will do the leg work. All we need is a moment of your thoughts, and suggestions.

In other news, we did receive a very special award at the Chapters Regional Conference in Syracuse, NY. The Gordon (Gordie) Root Historical Award was presented to the Boston Chapter in recognition of our efforts in documentation of history with some of our chapter ASHRAE Fellows. We have four such people in our local chapter and it is an honor to get a chance to spend some time with them-even thru email. We will continue these efforts, and look forward to sharing these with you in future editions of this newsletter.

We look forward to your attendance at future meetings.

Eric

STUDENT ACTIVITIES

By: Dan Diorio

It was great to have such a good student turnout at the October meeting in Boston! Was it the location of the meeting that made it easier? Let us know! Prior to the meeting getting started, I really enjoyed talking to several of the students from Wentworth and getting a feel for the kinds of activities they have planned for their student branch this year. I hope to see students at all of the meetings this year.

My goals for this year’s committee have been submitted to Region I. They include items such as; coordinating a K-12 student activity that is engineering and science related, promoting SA in a manner that increases student membership by a net of 10, hosting 2 technical tours for students, and promoting involvement in the Society Student Design Competition.

There’s still time to register for the 2016 ASHRAE Society Winter Conference in Orlando. Take a look at the Student Guide for the event on the Student Zone page. Aside from a student orientation and mixer, there are several technical seminars and facility tours geared toward students including a tour of the Orange County Convention Center – the largest LEED Gold certified convention center in the world.

The Student Activities Committee is always looking for ways to expand and for volunteer help. If there are ASHRAE members looking to help out with the committee, participate-in or suggest ideas for student activities, please contact me at any time via email at dan.diorio@bc.edu or stop by and say hello at one of the monthly meetings.
My 2015/2016 Research Promotion Fundraising Campaign is underway! Firstly, thank you once again to all of the early contributors - we’ve already received several!

Some information about ASHRAE Research...

- The raised money supports the following ASHRAE resources; Research, YEA, Education (as part of the Learning Institute), the ASHRAE Foundation & Endowed Funds, Scholarships, and the General Fund

- ASHRAE Research, in particular, is a program that governs more than 80 investigative projects around the world supported by member-led Technical Committees

- The average Research Budget typically exceeds $17-million!

You can find more information about ASHRAE Research at the Society level or about a specific research project at www.ashrae.org/research.

During the November 10th meeting at the Embassy Suites, I will be recognizing the 2014/2015 ASHRAE Research donors. Please join with me as we share our appreciation of all of the generous contributions.

Donations to ASHRAE Research can be made in two easy ways. Donate online at ashraeboston.org or ashrae.org/contribute. You can also mail a check directly to me at:

Dan Diorio
Boston College – St. Clements Hall
140 Commonwealth Ave
Chestnut Hill, MA 02467

Feel free to contact me with any questions about ASHRAE Research, my fundraising campaign, or donations in general. If there are members looking to help out with the committee, please email me at any time at dan.diorio@bc.edu.
As of July 1 2015 GGAC changed from Grassroots Government Activities Committee to Grassroots Government Advocacy Committee.

Federal Activities

House Committee Approves Energy Bill – Now Contains Harmful Building Energy Codes Language

The US House Energy & Commerce Committee approved the North American Energy Security and Infrastructure Act of 2015 (H.R.8), which addresses a broad range of issues, including: carbon capture, utilization, and sequestration; the Strategic Petroleum Reserve; liquefied natural gas exports; electric grid modernization; hydropower licensing; fossil fuel use reduction requirements for Federal buildings; regional energy efficiency standards for furnaces, central air conditioners, and heat pumps; establishing a water and energy efficiency pilot program; and codifying the WaterSense program.

The bill also now contains the harmful building energy codes language from the deceptively-titled Energy Savings and Building Efficiency Act of 2015 (H.R.1273). This language would likely limit the technical assistance that the US Department of Energy (DOE) currently provides, upon request, to ASHRAE, the International Code Council, States, and Indian tribes for the development, adoption, and implementation of Standard 90.1 and the IECC.

At the request of ASHRAE President David Underwood, over 300 ASHRAE members in targeted States sent messages this week, encouraging their US Representatives to oppose the ill-worded language of H.R.1273. The voices of the Society’s members were heard, prompting Ranking Member Frank Pallone (D-NJ-6) of the Energy & Commerce Committee to offer an amendment to remove this language from the underlying bill. While building energy codes and standards are not partisan issues, this amendment was unfortunately defeated by a nearly Party-line vote.

The North American Energy Security and Infrastructure Act will now be scheduled for debate on the House floor, where it is expected to pass, with most Republicans supporting and most Democrats opposing. The bill then faces an uncertain future in the Senate; however if that chamber did pass it, and it was presented to President Barack Obama in its current form, he would likely veto the legislation.

Senate Democrats Unveil New Comprehensive Energy Legislation

US Senate Democrats released what essentially amounts to their energy-related legislative wish list in the form of the American Energy Innovation Act (S.2089). This bill joins the Energy Policy Modernization Act of 2015 (S.2012) and Energy Savings and Industrial Competitiveness Act of 2015 (commonly called Portman-Shaheen, S.720) as the newest comprehensive energy legislation being considered by Congress, however unlike these bills, the American Energy Innovation Act does not contain a dedicated building energy codes section.

While this sweeping legislation has little chance of passage by itself, parts of it may turn up in other legislative vehicles. Here’s a sample of what’s in the bill:

- Require DOE to submit to Congress a study on the impact of State and local performance benchmarking and disclosure policies for commercial and multifamily buildings and programs, and on programs and systems in which utilities provide aggregated information regarding whole building energy consumption and usage information to the owners of multitenant commercial, residential, and mixed-use buildings.
- Would set parameters for a national energy efficiency resource standard that would be administered by each State.
- Reauthorize the Weatherization Assistance Program from 2016 to 2020 with an authorized level of $450 million each fiscal year.
- Reauthorize the State Energy Program for fiscal years 2016 through 2020 at $75 million each fiscal year.
- Establish a program to provide loans to a State, Territory, or Tribal organization for establishing or expanding programs to providing financing for energy efficiency upgrades to residential buildings.
Would establish a pilot program for municipalities, utilities, water district, or any other authority that provides water, wastewater, or water reuse services, to demonstrate novel and innovative technology-based solutions to increase the energy efficiency and water conservation in water, wastewater, and water reuse systems.

Help develop regional energy partnerships to coordinate and promote national, regional, and State energy goals, especially goals focused on advancing resilient energy systems to mitigate risks and prepare for emerging energy challenges.

Require DOE to establish a Smart Building Accelerator as part of the Better Buildings Challenge to demonstrate policies and approaches that accelerate the transition to smart buildings.

Direct DOE to conduct a study on the costs and benefits of smart buildings.

Establish a "WaterSense Program" within the US Environmental Protection Agency (EPA) to promote water efficient products, buildings, landscapes, facilities, processes, and services to be used with the EPA Energy Star label if appropriate. The bill authorizes $5 million a year to support this effort.

Would authorize the Advanced Research Project Agency- Energy (ARPA-E) at $1 billion for each fiscal year from 2016 through 2020.

Creates performance-based incentives for new and existing homes. The credits are based on the overall level of energy reduction. For new residences, buildings that are at least 25% more efficient than the 2015 IECC baseline would receive a minimum $1,500 tax credit. More efficient homes would receive a larger credit, up to a maximum of $3,000. The credit is provided to the contractor who builds and sells the residence. Homeowners looking to pursue deep energy retrofits can qualify for a $1,750 credit if they achieve a 20% energy reduction. Greater efficiency gains receive larger credit amounts, up to a maximum of $6,500.

Would create a performance-based incentive for increased energy conservation in new commercial buildings and for retrofits of commercial buildings. Buildings reaching minimum conservation thresholds receive a small deduction, which increases for more efficient buildings. Non-taxed entities, including Federal, State, local, and tribal governments, and nonprofits, are allowed to allocate deductions to the taxpayer primarily responsible for designing the efficiency improvements. New commercial buildings that are at least 25% more efficient than ANSI/ASHRAE/IES Standard 90.1-2013 can receive a $1.00 per square foot tax deduction, which increases with larger efficiency gains, up to a maximum of $4.75 per square foot. Retrofitted commercial buildings can qualify for a $1.25 per square foot deduction for a 20% reduction in energy use – greater energy reductions qualify for larger incentives, up to a maximum of $9.25 per square foot.

The next step is for this bill to be considered by the Senate Energy & Natural Resources Committee, or (more likely) for parts of it to be offered as amendments to other legislation.

GGAC Regional and Chapter Activities

New Legionella Outbreak Hits New York City

Seven cooling towers in the Morris Park area in the Bronx have tested positive for Legionella bacteria, city health officials announced Sept. 29. They also said that 10 new cases of Legionnaires' disease have been confirmed in the newest outbreak to hit the borough. The city said all of the cooling towers that tested positive were cleaned under the Aug. 6 mandate that was issued in response to a previous outbreak in the South Bronx that resulted in more than 120 cases of infection and 12 deaths.
ASHRAE YEA Leadership Weekend

Joe Dussault

Young Engineers of ASHRAE (YEA) is a fun and exciting part of the Boston ASHRAE Chapter that lets members of all ages get more involved with ASHRAE. YEA is focused on helping ASHRAE members age 35 years and younger build their foundation in ASHRAE. As the 2016-2017 Boston ASHRAE YEA chair, I am looking forward to organizing events such as technical tours, community service events, and our annual cornhole tournament.

In September, I participated in the annual ASHRAE YEA Leadership Weekend in Montreal, Quebec. The ASHRAE YEA Leadership Weekend is an annual program offered by ASHRAE that allows members to learn more about Society, develop soft skills and network with other young professionals from all over the world.

My goal for the Leadership Weekend was to gain some insight into planning events for the Boston YEA chapter but I got much more out of the weekend. A major focus of the weekend was “ice-breaker” activities to allow the YEA members to get to know each other better. These activities were very successful in allowing YEA members from Canada, USA, Brazil, Singapore, and many other countries to work on their soft skills and network with each other. The weekend also included team-building activities such as scavenger hunts across Montreal and group projects. All of these team building activities were very helpful in allowing the YEA members to build new relationships, learn more about themselves, and get more involved in their local ASHRAE chapters.

The Leadership weekend also focused on asking why we do what we do as engineers. For example, engineering is what we do and producing quality work is how we do it but many of us had never taken the time to really think about why we do what we do. For me personally, after working on many healthcare projects, I had never slowed down and thought about how my work might be helping the people who will use the hospital someday. This element of the weekend was very inspiring for all of the YEA members. In my opinion, it is very important to remember that our hard work as engineers will greatly benefit the future occupants of the buildings we are designing. This is an important attribute of future YEA leaders.

In addition to learning more about getting more involved in ASHRAE at the society level, YEA offers technical programs, mentoring to new members, leadership opportunities, networking, and fun through social opportunities like our annual cornhole tournament, golf outing, and simply hanging out with new friends.

Applications are now being accepted for the Leadership U Program at the Winter Conference in Orlando! If you have any questions, please let me know! I hope to see you there.
**Board of Governors Meeting Minutes**

By: Dan Carington

**Meeting Dates:** October 13, 2015

**Meeting Names:** October Meeting Minutes

**Attendees:** Stacie Suh, Teri Shannon, Dan Diorio, Erin Popa, William Tang, Mark Leonard, Deanna Adkison, Daniel Carington, Jim Liston, Justin Mole, Mike Gilroy, Andrew Krenning, Steve Tafone, Steven Nicholas, Steve Bosland, Kevin Doty, Eric Stutter, Steven Bosland, Bjarne W Olesen (speaker)

**Distribution:** All Chapter officers and BOG Members

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item Description</th>
<th>Action/Resp./Due Date</th>
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<tbody>
<tr>
<td>1</td>
<td>Opening Remark</td>
<td>Stacie Suh called meeting to order at approximately 4:38 pm</td>
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<tr>
<td>2</td>
<td>Old Business</td>
<td></td>
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<tr>
<td>2.1</td>
<td>The June Meeting minutes were approved</td>
<td>BOG/Officers</td>
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<td>2.2</td>
<td>YEA Weekend Experience /Update from YEA</td>
<td>Stacie S. Table to a later date, Christine R. and Joe D are not present</td>
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<td></td>
<td>Steve R. –Christine R. Contact him by email about Co Generator plan tour in November</td>
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<td>2.3</td>
<td>2014/2015 Boston Chapter Hall of Fame</td>
<td>Stacie S.</td>
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<td></td>
<td>Bill Garvey will be officially inducted at the November 2015 meeting</td>
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<td>2.4</td>
<td>October Meeting / November Meeting information</td>
<td>Mark L.</td>
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<td></td>
<td>- BOG members interested in final cost comparison of MMC vs Embassy Suites. Mark L to provide analysis follow the meeting.</td>
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<td>- All Tech session are full, only open scheduling item is the Harpoon Brewery tour date</td>
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<td>2.5</td>
<td>2014/2015 Boston Chapter Member of the year Award</td>
<td>Kevin D. gave insight of new website</td>
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<td>Stephanie LaFontaine will receive her Member of the Year plaque at the October Meeting, Dan D. to present award</td>
<td>Steve Rosen. to update actual price</td>
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<td>2.6</td>
<td>Boston Chapter Website Redesign update and cost options for website re-design</td>
<td>Kevin D / Steve R</td>
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<td></td>
<td>- Donna to maintain website until December she will be retiring, we will maintain site within house personal</td>
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<td>- Other chapter use Apricot Web design, price is in low $100</td>
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<td>3</td>
<td>New Business</td>
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<td>3.1</td>
<td>New Product &amp; Energy Show</td>
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<td>The date of this event is April 12, 2016. More discussion next meeting when Bill and/or Jeff are present</td>
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<td>3.2</td>
<td>2015 CRC – CRC Award Recognition</td>
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<td>- Stacie would like to recognize Boston Chapter CRC award winners at the November Meeting</td>
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<td>3.3</td>
<td>2016 Boston Chapter Golf Tournament</td>
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<td>- The Chapter would like to look at different strategies to increase money towards RP</td>
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<td>• It was suggested that a larger committee be formed</td>
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<td>• Additional discussion to follow at coming meetings</td>
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<td>3.4</td>
<td>Roster &amp; Product Guide</td>
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<td></td>
<td>Stacie S. Advised that Yuka Narisako will be helping out with the committee</td>
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<tr>
<td>3.5</td>
<td>On-line Roster &amp; Product Guide Database – first test run of the Apricot Web software and update on adding the online option</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kevin D / Steve R</td>
<td></td>
</tr>
<tr>
<td>3.6</td>
<td>Treasurers Update &amp; Financial Review</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stacie advised all to submit reimbursement information to Bill Garvey</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Stacie S. reviewed Treasurers report</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item No.</td>
<td>Item Description</td>
<td>Action/Resp./Due Date</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>3.7</td>
<td>Energy 2030 on the Road Campaign—No discussion</td>
<td>Stacie S. Table to a later date</td>
</tr>
<tr>
<td>3.8</td>
<td>2015/2016 Chapter Meeting Schedule update – Mark L gave update</td>
<td>Mark L.</td>
</tr>
<tr>
<td>3.9</td>
<td>2015/2016 Distinguish Lecturers</td>
<td>Mike G.</td>
</tr>
<tr>
<td>3.1</td>
<td>Corporate Sponsorships/ Event sponsorships</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stacie S updated BOG, we have 7 sponsors not including Gold by RDK. Total of $13500 raised in corporate funds for the year so far. Will be recognized sponsors at every event, banner, name tags and presentation.</td>
<td></td>
</tr>
<tr>
<td>3.11</td>
<td>Potential Brewery Tour – April 2016</td>
<td>Mike G and Mark L. to look into</td>
</tr>
<tr>
<td>3.12</td>
<td>Hall of Fame</td>
<td>Stacie S.</td>
</tr>
<tr>
<td></td>
<td>Designed Chair?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teri S. recommends separate chair, one person to handle it.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Based on group decision : stay with President elect to handle the hall of fame and getting help from others</td>
<td></td>
</tr>
<tr>
<td>3.13</td>
<td>Appreciation Plaque for Donna Harrington/ Website</td>
<td>Stacie S. will send out an email looking for ideas</td>
</tr>
<tr>
<td>3.14</td>
<td>Chapter Treasurer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rotation options and ideas? Dan D. Place treasurer position in rotation is not good idea</td>
<td></td>
</tr>
<tr>
<td>3.15</td>
<td>Boston Chapter Social Media –</td>
<td>Andrew K to forward email on the different media and update BOG</td>
</tr>
<tr>
<td></td>
<td>Andrew K. LinkedIn up and running, Twitter@ASHRAEBoston, will send out info to the BOG. Created a Gmail, did ASHRAEBostonPromotional</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Facebook not done will try get done by next meeting</td>
<td></td>
</tr>
<tr>
<td>3.16</td>
<td>High Profile advertisement</td>
<td>Stacie S. updated BOG, Andrew K. to talk to Tom from High Profile</td>
</tr>
<tr>
<td></td>
<td>Stacie S. brief Product Show committee about High Profile marketing advertisement</td>
<td></td>
</tr>
<tr>
<td>3.17</td>
<td>PAOE</td>
<td>Stacie S. confirmed that this is in affect</td>
</tr>
<tr>
<td></td>
<td>Stacie S. - Please update your PAOE points , all chairs</td>
<td></td>
</tr>
<tr>
<td>3.18</td>
<td>Chapter dues: Increase from $40 to $50 per person (Mari Ingram at Society)</td>
<td>Dan D. motion to pay for Anand S meal cost, Steve T second</td>
</tr>
<tr>
<td>3.19</td>
<td>Supporting Life member(s): Anand Seth (helping with RP) with Reg. for meetings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use Sponsorship to pay, but will be a case by case situation for other life members</td>
<td></td>
</tr>
<tr>
<td>3.2</td>
<td>Expense report(s)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stacie S., reminded BOG/chairs/officers to turn in expenses report to Bill G.</td>
<td></td>
</tr>
<tr>
<td>3.21</td>
<td>Other New Business – Chapter Chairs?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steven N. – Covered Code and Standards</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Justin M, (YEA) Co gen tour in November 12 , Networking event in December, Corn halter in January</td>
<td></td>
</tr>
<tr>
<td>3.22</td>
<td>Dan D. Thanks everyone for donating to Research Promotion</td>
<td>Dan D</td>
</tr>
<tr>
<td>3.23</td>
<td>Chapter Program Evaluation, please fill out. Is required by Region I/Society</td>
<td>Steve B</td>
</tr>
<tr>
<td>3.24</td>
<td>Seeking a member that speaks Portuguese to mentor a member from Brazil that will be moving to the Boston area</td>
<td>Dan C</td>
</tr>
<tr>
<td>3.25</td>
<td>Building Energy Modeling Professional Certification test</td>
<td>Eric S.</td>
</tr>
<tr>
<td>4</td>
<td>Adjournment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Meeting adjourned at 5:50 PM - Steve T. motioned, Justin M. seconded</td>
<td></td>
</tr>
</tbody>
</table>
MEMBERSHIP PROMOTION

By: Dan Carington

Metro Meeting Center located at 101 Federal Street, Boston, MA was a great start to our monthly meeting centered in Boston. It was a great turnout with members and students. Keep in mind we have two more meetings scheduled there for the season so please try and make it to one if not both meetings for those that cannot make it out to Waltham.

As most members know, email is our primary way for us to contact you and forward the Boston Chapter newsletter, meeting updates and a great amount of other info. Please take a few minutes to review your contact information at www.ASHRAE.org, login and update your current email info as well as your bio and so forth. All information about our members is provided to us by ASHRAE through automatic and regular process based on your email address, so help us keep you the members informed by doing this quick update.

Thank you to all the new members that attended the October meeting, I am truly happy to have seen you there. I truly look forward to getting to know you all as well as the officers and chairs. Please stop by and introduce yourself.

Please help me welcome our new members by giving them a warm welcome;

Mr Daniel Swanson
Mr David L Korn
Mr Jeff Gilbert
Mr Michael Soper
Mr David J Murphy
Mr Eric Harper

Welcome, we are so looking forward to seeing everyone at our next Boston Chapter ASHRAE events and meetings.

Please share your experience as a member of the Boston Chapter. If you can, email me and tell us what ASHRAE has done for you since becoming a member. It is one of my goals to post this on our newsletter to let other members and potential members see the benefit of being a member beyond the books and standards that are at our reach. ASHRAE has been a large part of my career since my involvement and I am sure it has been for you too.

Any comments or questions, please feel free to contact me at dpc@brplusa.com. Looking forward to hearing from you.
The New Product & Energy Show 2016 Date: April 12, 2016

The Officers and Board of Directors of the Boston Chapter of ASHRAE are pleased to extend an invitation to your organization to participate / exhibit at the 15th Biennial Product Show to be held at Lantana’s in Randolph, MA on April 12, 2016.

This show has always been well attended in the past, not only by the general ASHRAE membership, but also by others who work in this field, including Facility Engineers, Hospital Engineers, Building Owners and Mechanical Contractors. The local New Product & Energy Show targets a specific audience where you can talk to the customers who matter to you. Admission is free to all attendees.

Below are the specific details of the New Product & Energy Show. Please email Jeff Schultz if you are interested in participating at this event. Also if you are interested in trailer spot opportunity, please contact Bill Garvey at wgarv@aol.com.

DATE: TUESDAY, APRIL 12, 2016; 1:00 P.M. TO 8:30 P.M.
- Seminars 1:00 p.m. to 5:00 p.m.
- Product Show 3:00 p.m. to 8:15 p.m.
- Dinner 6:00 p.m. to 8:00 p.m.

LOCATION: LANTANA'S
- Routes 28 and 128
- Randolph, MA

EXHIBITOR REGISTRATION:
- Price $900.00 per single booth; Multiple adjoining booths are available.
- Reservations are on a first come- first serve basis.
- Registration forms will be mailed to vendors in early January.
- If you have not exhibited at our show before, but would like to this year, please contact the show chairpersons to be placed on our permanent mailing list and have a blank reservation form sent to you.
- Registration forms will be stamped in order of receipt. Booths are limited. Checks registration (completed) must be received by March 25, 2016. Please pay through Paypal: Ashraeboston@gmail.com with additional $25 processing fee for each booth.

BOOTH:
- Single – 8 feet wide x 6 feet deep
- Double – 16 feet wide x 6 feet deep
- A pre-printed sign will be attached to the backdrop with your company name.
  a. Draped booths will be set up labeled prior to your arrival.
  b. Tables 72” x 30” will be available upon your advanced request.
  c. Electricity is available only upon your advanced request. No heavy electrical loads will be permitted. Please bring your own extension cords.
  d. Water and drains are not available.
  e. Internet connections available at an additional charge through Lantana’s.

FOOD:
- A complementary buffet dinner will be available to all attendees of the show.

SEMINARS:
- ASHRAE has reserved the facility for the entire day. Rooms are available for seminars from 3:00 p.m. to 6:30 p.m. Please contact Jeff Schultz at Jeffrey.Schultz@dpsgroupglobal.com if you are interested in providing a seminar. An outline of the seminar material will need to be submitted prior to approval. The seminars are intended to be educational and not commercial in nature.

Thank you for your interest and participation in the Boston Chapter – ASHRAE Product Show. You will receive a confirmation letter with additional information, plus some invitations for you to distribute to your customers who may not have received one. Please visit www.ashraeboston.org for more information and also for updated booth layout of exhibits.

Please contact me at Jeffrey.Schultz@dpsgroupglobal.com should you have any questions.

Sincerely,
Jeffrey H. Schultz
ATLANTA – The most up-to-date information on the standards that guide industry technology, along with presentations focused on upcoming ASHRAE publications, is featured at the ASHRAE 2016 Winter Conference.

The ASHRAE Conference takes place Jan. 23-27, Orlando Hilton, while the ASHRAE co-sponsored AHR Expo takes place Jan. 25-27, next door at the Orange County Convention Center. To register for the ASHRAE Conference, which includes free access to the Expo, visit www.ashrae.org/orlando. Information about the Expo can be found at www.ahrexpo.com.

The Technical Program features eight tracks, some 100 sessions and more than 300 speakers. It runs Sunday, Jan. 24 through Wednesday, Jan. 27, and offers over 200 Professional Development Hours, as well as Continuing Education Units, which can be applied toward a Professional Engineering license in many states, including the state of Florida.

Among the sessions are several providing updates on ASHRAE and industry standards and publications.

“Since ASHRAE is the leader in HVAC&R standards and guidelines, these sessions are a hot topic for attendees,” Jennifer Leach, Conference chair, said. “This year, we will focus on some international standards like EU QualiCheck and the International Institute of Refrigeration as well as ASHRAE standards related to environmental quality, energy and Legionella. Attendees can use the information shared through the Technical Program while walking the Expo floor to see how it directly impacts the development of technology.”


The Conference also features several innovative sessions in the Cutting Edge and International Design tracks as well as residential programs, numerous refrigerant update presentations, especially on low global warming potential, and fundamentals, applications, systems and equipment sessions.

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 54,000 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.
### ASHRAE Learning Institute

#### Seminars & Courses at ASHRAE’s Winter Conference in Orlando, FL

#### 2 WAYS TO REGISTER
- **Internet:** [www.ashrae.org/orlandocourses](http://www.ashrae.org/orlandocourses)
- **Phone:** Call 1-800-527-4723 (US and Canada) or 404-639-8400 (worldwide)

#### Full-Day Professional Development Seminars
$485/$395 ASHRAE Member – Earn 6 PDHs/AIA LUs or .6 CEUs

- **Commercial Building Energy Audits**
  - Saturday, January 23, 2016 – 8:00 a.m. to 3:00 p.m.
- **Commissioning Process in New & Existing Buildings**
  - Saturday, January 23, 2016 – 8:00 a.m. to 3:00 p.m.
- **Designing HVAC Systems to Control Noise & Vibrations**
  - Saturday, January 23, 2016 – 8:00 a.m. to 3:00 p.m.
- **Energy Modeling Best Practices and Applications**
  - Tuesday, January 26, 2016 – 9:00 a.m. to 4:00 p.m.
- **Operations & Maintenance of High-Performance Buildings**
  - Tuesday, January 26, 2016 – 9:00 a.m. to 4:00 p.m.

#### Half-Day Short Courses
$159/$119 ASHRAE Member – Earn 3 PDHs/AIA LUs or .3 CEUs

- **Laboratory Design: The Basics and Beyond**
  - Sunday, January 24, 2016 – 3:30 p.m. to 6:30 p.m.
- **Troubleshooting Humidity Control Problems**
  - Sunday, January 24, 2016 – 3:30 p.m. to 6:30 p.m.
- **Understanding & Designing Dedicated Outdoor Air Systems**
  - Sunday, January 24, 2016 – 3:30 p.m. to 6:30 p.m.
- **Variable Refrigerant Flow System Design & Applications**
  - Sunday, January 24, 2016 – 3:30 p.m. to 6:30 p.m.
- **Air-to-Air Energy Recovery Applications: Best Practices**
  - Monday, January 25, 2016 – 8:30 a.m. to 11:30 a.m.
- **Applications of Standard 62.1-2013**
  - Monday, January 25, 2016 – 8:30 a.m. to 11:30 a.m.
- **Building Demand Response & the Coming Smart Grid**
  - Monday, January 25, 2016 – 8:30 a.m. to 11:30 a.m.
- **Avoiding IAQ Problems**
  - Monday, January 25, 2016 – 2:45 p.m. to 5:45 p.m.
- **Commissioning Process & ASHRAE Standard 202**
  - Monday, January 25, 2016 – 2:45 p.m. to 5:45 p.m.
- **Complying with Standard 90.1-2013: HVAC/Mechanical**
  - Monday, January 25, 2016 – 2:45 p.m. to 5:45 p.m.
- **Evaluation and Control of Legionella in Building Water Systems**
  - Monday, January 25, 2016 – 2:45 p.m. to 5:45 p.m.
- **Exceeding Standard 90.1-2013 to Meet LEED Requirements**
  - Monday, January 26, 2016 – 9:00 a.m. to 12:00 p.m.
- **IT Equipment Design Evolution & Data Center Operation Optimization**
  - Monday, January 26, 2016 – 9:00 a.m. to 12:00 p.m.
- **Designing High-Performance Healthcare HVAC**
  - Monday, January 26, 2016 – 1:00 p.m. to 4:00 p.m.

### ASHRAE HVAC Design Training

**2 Courses, 5 Days of Intense Instruction**

- **Atlanta** • **Halifax** • **Hong Kong** • **Houston**
- **Kuala Lumpur** • **Miami** • **Minneapolis** • **Vancouver**

#### HVAC Design: Level I – Essentials
- Registration is $1,264 ($1,009 ASHRAE Member)

Gain practical skills and knowledge in designing and maintaining HVAC systems that can be put to immediate use. The training provides real-world examples 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.

#### HVAC Design: Level II – Applications
- Registration is $854 ($699 ASHRAE Member)

*HVAC Design: Level II — Applications* provides instruction on HVAC system design for experienced HVAC designers and those who complete the HVAC Design: Level I – Essentials training. The training provides information that allows practicing engineers and designers an opportunity to expand their exposure to HVAC systems design procedures for a better understanding of system options to save energy.

Visit [www.ashrae.org/hvactraining](http://www.ashrae.org/hvactraining) to register.
<table>
<thead>
<tr>
<th>Date</th>
<th>Main Meeting/ Tech Session</th>
<th>Speaker</th>
<th>PDH Credits</th>
<th>Meeting Manager</th>
<th>Location/ Special Night</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>September</strong></td>
<td>TD Garden Dehumidification System Tour</td>
<td>Chris Trent - Siemens, Pat McDonald - Eversource, Andrew or Jason - DNC, David Trumble – Cannon Design, Enis Pacavar – Sylvania Lighting</td>
<td></td>
<td>Mark Leonard</td>
<td>TD Garden Boston, MA</td>
</tr>
<tr>
<td>Wednesday September 9, 2015</td>
<td>Towards ZEB (Zero energy buildings) in Europe and Application of Radiant Heating and Cooling Systems</td>
<td>Per Heiselberg, Bjarne W. Olesen</td>
<td>1.0</td>
<td>Mark Leonard</td>
<td>Metro Meeting Centers, Boston—101 Federal St.</td>
</tr>
<tr>
<td>Tuesday October 13, 2015</td>
<td>Tech Session: Passive Cooling with Increased Night Ventilation in Low Energy Buildings</td>
<td>Guilherme Carrilho da Graça, Annamaria Belleri &amp; Per Heiselberg</td>
<td></td>
<td><a href="mailto:MCL@BRPLUSA.COM">MCL@BRPLUSA.COM</a></td>
<td>Membership and Student Promotion Night</td>
</tr>
<tr>
<td><strong>November</strong></td>
<td>Net zero commercial buildings – how to design and maintain indoor air quality</td>
<td>Bill Turner HLTURNER Group</td>
<td></td>
<td>Mark Leonard</td>
<td>Embassy Suites, Waltham</td>
</tr>
<tr>
<td>Tuesday November 10, 2015</td>
<td>Tech Session: Changing Refrigerant</td>
<td>Steve Tafone</td>
<td></td>
<td><a href="mailto:MCL@BRPLUSA.COM">MCL@BRPLUSA.COM</a></td>
<td>Research Promotion &amp; Donor Recognition Night Joint Meeting with IAQA</td>
</tr>
<tr>
<td><strong>December</strong></td>
<td>ASHRAE SPC-188 Legionellosis: Risk Management for Building Water Systems</td>
<td>Tom Watson</td>
<td></td>
<td>Mark Leonard</td>
<td>Embassy Suites, Waltham</td>
</tr>
<tr>
<td>Tuesday December 8, 2015</td>
<td>Tech Session: Remarkable Long Term Performance in an Open Water Cooling System</td>
<td>Ed Block</td>
<td></td>
<td><a href="mailto:MCL@BRPLUSA.COM">MCL@BRPLUSA.COM</a></td>
<td>Joint Meeting with ASPE</td>
</tr>
<tr>
<td><strong>January</strong></td>
<td>ASHRAE Society President</td>
<td>David Underwood</td>
<td></td>
<td>Mark Leonard</td>
<td>Embassy Suites, Waltham</td>
</tr>
<tr>
<td>Tuesday January 19, 2016</td>
<td>Tech Session: Bench Marking /Building Energy Reporting and Disclosure Ordinance (BERDO)</td>
<td>Michelled Ruda, Bryan Donovan</td>
<td></td>
<td><a href="mailto:MCL@BRPLUSA.COM">MCL@BRPLUSA.COM</a></td>
<td>Past President’s &amp; History Night</td>
</tr>
<tr>
<td><strong>February</strong></td>
<td>Infrastructure Resiliency Design in Healthcare. Post Superstorm Sandy</td>
<td>Steven Friedman</td>
<td></td>
<td>Mark Leonard</td>
<td>Metro Meeting Centers, Boston—101 Federal St.</td>
</tr>
<tr>
<td>Tuesday February 9, 2016</td>
<td>Tech Session: TBD</td>
<td>TBD</td>
<td></td>
<td><a href="mailto:MCL@BRPLUSA.COM">MCL@BRPLUSA.COM</a></td>
<td>Membership Promotion, Research Promotion &amp; YEA Night</td>
</tr>
<tr>
<td><strong>March</strong></td>
<td>Case Histories of Both Productive and Problematic Interactions Between Architectural Designs and HVAC</td>
<td>Lew Harriman</td>
<td></td>
<td>Mark Leonard</td>
<td>Metro Meeting Centers, Boston—101 Federal St.</td>
</tr>
<tr>
<td>Tuesday March 8, 2016</td>
<td>Tech Session: GroundSource Case Study</td>
<td>George HU</td>
<td></td>
<td><a href="mailto:MCL@BRPLUSA.COM">MCL@BRPLUSA.COM</a></td>
<td>Joint Meeting with AEE</td>
</tr>
<tr>
<td><strong>April</strong></td>
<td>Product Show</td>
<td>Jeff Schultz</td>
<td></td>
<td>Bill Garvey</td>
<td>The Lantana</td>
</tr>
<tr>
<td>Tuesday April 12, 2016</td>
<td>Tech Session: TBD</td>
<td>N/A</td>
<td></td>
<td><a href="mailto:wgary@aol.com">wgary@aol.com</a></td>
<td>Student &amp; YEA Night</td>
</tr>
<tr>
<td><strong>May</strong></td>
<td>Installation of Officers</td>
<td>William Tang</td>
<td>N/A</td>
<td>Event Committee/WT</td>
<td>TBD</td>
</tr>
<tr>
<td>Tuesday May 10, 2016</td>
<td></td>
<td></td>
<td></td>
<td>Sponsors Recognition Night</td>
<td></td>
</tr>
<tr>
<td><strong>June</strong></td>
<td>Golf Outing</td>
<td>William Garvey</td>
<td>N/A</td>
<td>Golf Committee</td>
<td>Halifax Country Club, Halifax, MA</td>
</tr>
<tr>
<td>Monday June 6, 2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
OFFICERS

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dcarbone@stebbinsduffy.com

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dpc@brplusa.com

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Deanna Adkison
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dadkison@akfgroup.com

The New Product Show & Energy Show 2016
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jeffrey.schultz@dpseng.com

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sbosland@eypae.com

Publicity
Andrew Krenning
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INDIVIDUAL

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