

## THE LONG ISLAND SOUNDER



ASHRAE Long Island Chapter, Region 1...Founded in 1957

www.ashraeli.org

#### American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.

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#### **President's Message**

Welcome to the November issue of the "Long Island Sounder". We thank all those who attended last month's meeting. We were fortunate enough to have Evans Lizardos give us a "Back to Basics" Presentation on How to Select & Specify Heating & Cooling Coils. His handouts make for excellent reference material. Thank you again to Joel Southwall who provided us a very informative presentation on different types of hydronic boiler systems along with the methods of reducing energy consumption and the various control systems available.



Thank you to Daikin and ATI for sponsoring the September and October cocktail hours and for the following companies; Trane, MGE and Accucpec for offering to sponsor the November, January and March meetings. If your company is interested in sponsoring a cocktail hour please contact Rich Rosner or myself.

This month's meeting we have Jim Sadler speaking to us on "Local Seismic Risk, Seismic Codes and Recommended Seismic Specifications." Be sure to read this month's CTTC article about this topic. Don Kane makes some great points to consider pertaining to this month's lecture.

Please check out our website www.ashraeli.org and take a look at the latest programs that Rich Rosner, our Programs Chair, has scheduled for the chapter monthly meetings. Pencil in those dates on your calendar so you won't miss out on these great top-

**CHAPTER MONTHLY MEETING** 

DATE:	Tuesday, November 12, 2013
TIME:	6:00 PM - Cocktails/Dinner 6:45 PM - Dinner Presentation 8:45 PM - Conclusion
LOCATION:	Westbury Manor South Side of Jericho Tpke. 25 Westbury, NY 11590
FEES: Members - Guest - Student -	\$40.00 \$45.00 \$15.00

Reservations requested, but not required.

Call (516) 333-7117

Time is moving fast and the ASHRAE winter meeting is just around the corner and in NYC. If you have the opportunity, the AHR expo is an amazing opportunity to see what's new and who is who. There are also many ASHRAE learning sessions and technical committees to check out.

With the busy holiday schedule around the corner, please mark your calendar for our Chapter Holiday Party on December 10. At this time we will also be fortunate to host Joseph Furman, DRC, Director and Regional Chair of ASHRAE Region 1, who will be observing our meeting and addressing our members.

Thank you to all the volunteers and board members, I appreciate all your time and dedication to our chapter and community.

We look forward to seeing everyone at the November meeting and thank you for your continued support of the Long Island Chapter of ASHRAE.

Andrew Manos, LEED AP BD+C President - Long Island Chapter

### Long Island Chapter Officers & Committees

#### ASHRAE 2013/2014 OFFICERS

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President	Andrew Manos, LEED AP	631.632.2791	631.632.1473	president@ashraeli.org
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#### ASHRAE 2013/2014 COMMITTEES

COMMITTEE	NAME	PHONE	FAX	EMAIL
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Golf Outing	Peter Gerazounis, P.E., LEED AP Steven Friedman, P.E., HFDP, LEED AP	212.643.9055 212.354.5656	212.643.0503 212.354.5668	golf@ashraeli.org

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# Young Engineers in ASHRAE (YEA)

Many thanks to all of the people who helped make our first annual trip to Brooklyn Brewery a success. I think we all learned a lot during the brewery tour. The HVAC systems they used while expanding their brewery are obviously top notch. The rest of the brewery was pretty interesting too...



No worries if you missed it, we'll make time to meet at the brewery with members and friends next October as well.

As always, we strive to present you with exciting networking and learning opportunities. Check back next month for more exciting news!

Lee Feigenbaum YEA Chairman

#### **Long Island Chapter - Past Presidents**

1958	H. Campbell, Jr. PE	1986	Jerome T. Norris, PE
1959	Clyde Alston, PE	1987	Abe Rubenstein, PE
1960	Sidney Walzer, PE	1988	Michael O'Rouke
1961	Sidney Gayle	1989	Mel Deimel
1962	William Kane	1990	Robert Rabell
1963	Louis Bloom	1991	Gerald Berman
1964	Milton Maxwell	1992	Donald Stahl
1965	Will Reichenback	1993	Ronald Kilcarr
1966	Joseph Minton, PE	1994	Jerald Griliches
1967	Irwin Miller	1995	Walter Stark
1968	Walter Gilroy	1996	Joe Marino
1969	Charles Henry	1997	Norm Maxwell, PE
1970	William Wright	1998	Alan Goerke, PE
1971	Louis Lenz	1999	Frank Morgigno
1972	Ronald Levine	2000	Michael Gerazounis, PE, LEED AP
1973	Henry Schulman	2001	Ray Schmitt
1974	Myron Goldberg	2002	Steven M. Stein, PE
1975	John N. Haarhaus	2003	Andrew Braum, PE
1976	Richard K. Ennis	2004	Claudio Darras, P.E.
1977	Kenneth A. Graff	2005	Craig D. Marshall, P.E.
1978	Evans Lizardos, PE, LEED AP	2006	John Nally
1979	Albert Edelstein	2007	Peter Gerazounis, PE, LEED AP
1980	Ralph Butler	2008	Steven Friedman, PE, HFDP, LEED AP
1981	Robert Rose, PE	2009	Steven Giammona, P.E., LEED AP
1982	Timothy Murphy, PE	2010	Nancy Román
1983	Leon Taub, PE	2011	Carolyn Arote
1984	Raymond Combs	2012	Brian Simkins, LEED AP
1985	Edward W. Hoffmann		



PAOE POINTS FOR 2013/2014							
Chapter         Membership         Student         Research         History         Chapter         CTTC         GGAC         Chapter           Members         Promotion         Activities         Promotion         Operations         PAOE Totals							
296         225         270         275         200         570         250         250         2,040							

# **Chapter Monthly Meeting - Program for 2013/2014**

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September 10, 2013 * At Westbury Manor	February 2014
Dinner Presentation – Characteristics of Throw (Overhead Air Distribution Fundamentals) Presenter: ADE - Frank Bergamini **1 PDH**	NATIONAL ENGINEERS WEEK Feb 16 through Feb 22
Membership Promotion Night	
October 8, 2013 * At Westbury Manor	March 11, 2014 * At Westbury Manor
Dinner Presentation—Optimizing Efficiency of Multiple Hydronic Boiler Systems Presenter: Joel Southwell **1 PDH**	Dinner Presentation—GeoThermal Systems – Design and Installation Considerations Presenter: Ray Schmitt and Panel **1 PDH**
Resource Promotion Night	Joint meeting with LI-Geo YEA Night
Back to Basic Session I - Evans Lizardos **1 PDH** "How to Select & Specify Heating & Cooling Coils"	Back to Basic Session III – Evans Lizardos **1 PDH** "Design & Theory of dedicated Outside Air Systems for Humidity Control"
November 12, 2013 * At Westbury Manor	April 8, 2014 (5 PM)
Dinner Presentation—Seismic Design for Building Systems Presenter: Jim Sadler from Mason Industries  **1 PDH**	ANNUAL FIELD TRIP Long Beach Ice Skating Rink – See the refrigeration system and hear about the storm damage and recovery. **1 PDH**
Joint meeting with SMACNA Student Activities Night & YEA Night as well as Membership Promotion and Upgrade Night	Dinner to follow at a local Restaurant with a "Sandy" story <b>Joint meeting with RSES</b>
December 10, 2013 * At Westbury Manor	May 5 <sup>th</sup> , 2014 * Cherry Valley Club, Garden City, NY
HOLIDAY PARTY Free Buffet Dinner for Members VISIT FROM DRC - Joseph Furman	ANNUAL GOLF OUTING
January 14, 2014 * At Westbury Manor	May 13 <sup>th</sup> , 2014 * At Westbury Manor
Dinner Presentation- Automatic Flow Balancing Presenter: John Knowles  **1 PDH**  Back to Basic Session II - Evans Lizardos  **1 PDH**	Dinner Presentation—Introduction to Ammonia Refrigeration Systems Presenter: Douglas T. Reindl, Ph.D., P.E.  **1 PDH** ASHRAE DISTINGUISHED LECTURER
"Design of Variable Air Volume Systems"	Student Activities Night Refrigeration Night
January 2014	June 10, 2014 * At Westbury Manor
ASHRAE Winter Meeting Jan 18-22	Free Buffet Dinner for Members  PAST PRESIDENTS NIGHT & OFFICER INSTALLATION
New York Hilton 1335 Avenue of the Americas New York, NY	STUDENT SCHOLARSHIPS TO BE AWARDED ASHRAE History Quiz and prize Give-A-Ways
February 11, 2014 * At Westbury Manor	August 2014
Dinner Presentation—Leed Ver 4 Rating System & ASHRAE 191P Water efficiencies in Bldgs.  Presenter: Rich Gerbe **1 PDH**	Chapter Regional Conference (CRC) Region I Bi-State Chapter Hosting August 14-16, 2014
Joint Meeting with USGBC Resource Promotion Night Membership Promotion Night	

#### **Board of Governors Meeting Minutes**

#### Attendees:

Andrew Manos (AM); Rich Rosner (RR); Charles Lesniak (CL); Don Kane (DK); Andrew Dubel (AD); Richard Halley (RH); Lee Feigenbaum (LF); Brian Simkins (BS); Tom Fields (TF)

The meeting was called to order at 5:10pm by Andrew Manos - President, at Westbury Manor.

**President -** Presidents PAOE points are currently at 570.

**President Elect/Programs -** RR noted all meetings were booked. Automatic flow balancing was scheduled for Jan. Joint meetings in November with SMACNA an joint meeting in February with USGBC still need speakers. LI Geo will have a joint meeting in march.

**Chapter Technology Transfer -** CTT PAOE points are current at 200. Draft MBOs have been reviewed by RVC and final MBOs submitted to RVC October 1.

**Treasury -** As of august 30th, current account balance is \$7,581. Draft budget will be reviewed at next meeting. Address of record for TD Bank has been changed to the P.O. Box. Check for Chapter Assessment has been sent to Society. Reimbursement checks for CRC expenses distributed at BOG meeting.

**Grassroots Government Activates -** GGA PAOE points are current at 50. MBOs have been submitted to the RVC by October 1<sup>st</sup>. RR submitted a list of government officials to RVC.

Historian - Historian PAOE points are currently 175.

**Research Promotion -** RP PAOE points are currently at 215. RR attended RP central training. Current RP is \$1,725. Goal is \$14,900. High five is \$21,422. Challenge is \$22,514. 30% by Dec \$4,470. Full circle is completed.

Membership Promotion - MP PAOE points are currently at 75

Student Activities - SA PAOE points are currently at 250.

**YEA -** LF Reported that A YEA event has been scheduled for Brooklyn brewery on October 12th. Stony Brook will have a sponsored presentation on October 9th. 9 student members have been registered.

**Webmaster -** The website has been updated. Chairs reminded to look over their articles online and send updates as required.

Golf - The golf outing has been confirmed for May 5th.

The next meeting will be held on November 12th at Westbury Manor.

The meeting was Adjourned at 6:10.

Andrew B. Dubel, P.E. Chapter Secretary

#### **November Program**



## **Dinner Presentation**

"Seismic Design for Building Systems"

Presented by

Jim Sadler Mason Industries



DATE	TUESDAY, NOVEMBER 40, 0040						
DATE:	TUESDAY, NOVEMBER 12, 2013						
Time:	6:00 PM - Cocktails and Hors D'ouevres 6:45 PM - Dinner Presentations 8:45 PM - Conclusion	Fee:	\$ 40.00 Member \$ 45.00 Guest \$ 15.00 Student				
Location:	WESTBURY MANOR (516) 333-7117  Jericho Tpke (South Side), 3/10 of mile east from Glen Cove Rd., Nassau County, NY.  Directions are posted at @ www.ashraeli.org.						
Presentation:	This month's presentation will discuss local seismic risk, seismic codes and recommended seismic specifications.  Participants will receive 1 PDH credit.						
About our Speaker(s):	Jim Sadler is the national sales manager of Mason New York with over 23 years of experience in the constraint systems.						

#### **Research Promotion**

We had a nice RP thank you night at the October meeting and it was good to see old friends and all of the generous donors. In case you hadn't heard, Daikin sponsored cocktails at our September meeting and ATI sponsored them at our October meeting. Also stepping up to the plate is Trane for our November meeting and MGE for the January meeting followed by Accucpec for the March meeting. This really helps keep our dinner costs down as the board was considering raising the cost of the meals but hopes to hold the prices now. Thanks all!

Checks were sent to the society this month for the Lynn Bellenger perpetual giving scholarship fund from the chapter and from your chapter officers for the full circle award. We are up to date on all submissions and collecting PAOE points and honors



for our commitment to research. We have collected \$1,975 so far and need \$4,470 or \$2,495 more by December to make the 30% goal which is our next goal to meet. Last year I didn't make that goal but we had that little excuse called Super Storm Sandy! Hopefully we will be spared any super storm this year. I am going to be sending out reminders to sign up for this year's product directory. The directory has worked out to be our biggest fund raiser and a wonderful tool for our members and product sellers. Pick up a free copy at our meetings, available at the sign-in desk, or take a look online at <a href="http://ashraeli.org/productdirectory.html">http://ashraeli.org/productdirectory.html</a>.

This year's RP Goal this year is \$14,900 and our High Five challenge goal is \$22,514, I am shooting to bust that goal! I hope to see you at the November meeting.

#### CONTRIBUTIONS CAN BE MADE IN THE FOLLOWING WAYS:

1) You can mail your checks, made out to ASHRAE Research Promotion, to:

Richard L. Rosner, P.E.
ASHRAE Research Promotion Chair
c/o Nassau Suffolk Engineering & Architecture, PLLC
801 Motor Pkway, Suite 103
Hauppauge, NY 11788

- 2) You can bring your check to any of the meetings and give it to me. I will mail it into headquarters.
- 3) You can contribute via paypal from the <u>ASHRAE LONG ISLAND</u> web site just click on the donate button.
- 4) You can contribute directly on-line. www.ashrae.org
- Please make sure you accredit your contribution to the LONG ISLAND CHAPTER 006 \*

Thank you again for all your support!

Richard L. Rosner, P.E. Research Promotion Chair



#### CTTC - When the Earth Doesn't Stand Still

"It's déjà vu all over again"....some of you may recall that our September 2012 Sounder article addressed seismic concerns in regard to HVAC system design (if you didn't, feel free to go to our newly updated/enhanced chapter website, www.ashraeli.org, and read the September 2012 Sounder to refresh your memory). The current installment will not, for the most part, repeat what was covered there, which was primarily concerned with how to identify the Seismic Hazard Level. Although duct and piping restraint was briefly covered in the earlier article, most of the piece was concerned with how to ensure that roof-mounted equipment would not become sidewalk-mounted equipment.

But what good does it do if the roof-mounted equipment has weathered the seismic event if the ducts, piping and conduits carrying the air, fluids and electrical power necessary for proper functioning of the climate control system are no longer intact? Where to turn for guidance? The ASHRAE Hand Books are a good starting point. Chapter 46 of the 2012 Systems Volume provides general information on piping systems installation, allowable stresses,



provision for expansion and vibration using various methods, including expansion joints and swivel joints. A passing reference is made to ... "occasional loads such as ice, wind and seismic forces". Chapter 48 of the 2011 Applications volume briefly discusses compliance with applicable building codes for seismic resistant construction and cautions about the need to ensure that the snubbers provided as part of a seismic restraint system should not bypass the vibration isolation used to prevent objectionable vibration and/or noise from being transmitted from the HVAC equipment during normal conditions. Chapter 55 of this same volume (Applications) provides more in-depth information related to the classifications of various geographical areas as to seismic hazard and provides details related to anchoring and restraint methods. Reference is made in this chapter to the SMACNA Seismic Restraint Manual, specifically referenced in earlier editions of the IBC, and certainly no less useful today, which provides guidance in the design of restraints for ducts, piping and conduits.

SMACNA....piping and conduits???? A little history...(from the foreword to the SMACNA manual): As with many things, it all started in California. The 1971 San Fernando Earthquake resulted in 4 out of 11 medical facilities being damaged severely enough to require evacuation. At the very time when such facilities were drastically needed they were unable to fulfill their mission due, in some cases, to the failure of mechanical systems, even when the structure itself was still sound enough for use. As a result, the State of California mandated that hospitals should be built to remain operational after an earthquake. As a result of this mandate, in 1976, the Sheet Metal Industry Fund of LA published Guidelines for Seismic Restraint of Mechanical Systems, to be used as a technical guideline to meet these more stringent seismic requirements. While initially concerned with ductwork, a later edition, published in 1982 - in partnership with the Plumbing and Piping Industry Council (PPIC)- expanded the bracing guidelines for piping. Realizing that the requirements based on typical California seismic exposure may, in many cases, be excessive for those areas not subject to the same severity of seismic activity, SMACNA formed the Seismic Restraint Task Force and, in 1990 recommended the development and publishing of a manual of seismic restraint guidelines (to include non-technical explanations) expanded to include electrical conduits as well as larger sized ducts. These guidelines recognized that, even if a structure withstood the effects of a seismic event, the destruction or malfunctioning of the mechanical systems could, as a minimum, make the structure uninhabitable for an extended period of time and, in the worst case, result in severe damage and/or loss of life. It is important to remember that if a coolant pipe, for example, fails, it may not just result in the loss of cooling, the leaking liquid could damage electrical equipment and a falling section of pipe could damage other piping, including gas piping.

It is important to note that, while the manual provides guidelines for the restraint of ducts, piping and conduits, it does not cover normal ("gravity") support of these items. Also excluded are fire sprinkler systems, leaving that to the NFPA's applicable standards. While not necessarily related to the seismic performance of the systems, seismic restraint design must take into consideration and coordinate with the need to address thermal expansion of piping as well as vibration due to location and/or connected equipment, as the solutions to both problems may possibly be combined, and generally must be coordinated.

What then is the basis of seismic design of piping, ductwork and conduits? Restrain movement where it is not desired; provide for movement when it <u>is</u> needed; and ensure that anchor points are adequate to withstand resultant reaction forces or design to eliminate reaction forces in excess of the anchor point capacities.

The intent is to ensure that the transverse and/or longitudinal movement of system components does not result in damage to those components, building structure or to other systems and/or personnel, while limiting stresses to system

#### CTTC - When the Earth Doesn't Stand Still (Cont'd. from Page 8)

components and/or anchor points to prevent failure of either.

Certainly, we do not want piping "trapezes" swinging wildly about during a seismic event, nor would we want unrestrained motion which, if excited at a resonant frequency for the system, could result in damaging movement during "normal" operation. It is to this end that the SMACNA Restrain Manual provides guidance on how and where to install restraints and various types of restraint constructions available to use. These restraints may be solid links or may consist of paired cable stays. These restraint systems must be coordinated with the provision for thermal expansion/contraction for piping subject to large variations in temperature during operation. The SMACNA manual specifies the minimum required restraint spacing, based on piping deformability and the hazard involved (contents and function of the piping contents). For low deformability or hazardous contents, restraints are required every 20 feet transversely and 40 feet longitudinally. For high deformability material, these spacings are increased to 40 feet and 80 feet respectively, with a minimum of two transverse and one longitudinal restraints. For ducts, the SMACNA manual requires transverse restraint every 40 feet and longitudinal restraints every 80 feet.

For those locations where movement is anticipated and necessary, (for example, at structural seismic isolation joints) provision must be made to permit the duct/piping/conduits to move without overstressing the material or the anchoring means. This may be accomplished by several methods, and is frequently coordinated with the need for thermal growth resulting from heated or cooled liquids in piping causing "growth" of the piping. Most often used are <u>bellows</u>, <u>loops</u>, <u>swivel (ball) joints</u>, <u>slip joints</u> and, to a certain degree, <u>grooved pipe connections</u>.

**Bellows** may be lined or unlined (depending upon the need to streamline flow through that section of piping) and, when used, the liners may be a welded-in liner or a drop-in liner. While resulting in minimal pressure drop, the use of bellows may create a need for additional supports and/or guides. Generally, the use of bellows will not eliminate the anchor loads and care must be taken that the thrust rating of the joint does not exceed the column strength of the piping.

**Piping loops** may take the form of **solid piping** configured in "U" or "L" arrangements to allow for movement without overstressing anchor points. These loops are frequently already part of the design to accommodate thermal growth/contraction of the piping. While the use of solid piping loops is relatively inexpensive and does not complicate insulation installation, the additional pipe length and elbows can sometimes create enough pressure loss to require upsizing the piping. The directional changes in the elbows can also contribute to erosive wear of the piping material, depending upon the nature of the material being transported. This option requires little or no maintenance.

**Flexible connections**, comprising a bellows-like section generally covered by a metallic braid, lend themselves well to application crossing structural seismic isolation joints. The shorter length, compared to hard-piped loops, may be advantageous in reducing pressure drop however, some configurations will require additional supports and guides. If there is any deterioration of the internal bellows, it will not be readily apparent until leakage occurs. Flexible connections will reduce the anchor loads, but may require additional anchors to be installed.

**Ball joints** permit relative large amounts of angular movement, are easy to insulated and only minimally increase the pressure drop of the piping. They do require some degree of inspection/maintenance to ensure continued satisfactory operation.

**Slip joints** are useful where the anticipated movement will be axial (longitudinally) only. They can accommodate seismic as well as thermal growth related stress but do require maintenance on a regular basis. Pipe guides used have to accommodate the anticipated movement of the piping in the slip joint.

**Grooved joints** provide some degree of movement, to the extents of the manufacturers angular limits. Where several joints are used in close proximity to each other, some additional bracing and/or support may be necessary.

In summary, both the ASHRAE Handbook volumes and the SMACNA Seismic Restrain Manual provide a general understanding of what is required to design a mechanical system which will survive seismic events, however both sources emphasize the need for the mechanical designer to consult with structural specialists to verify that material stresses are not exceeded during the anticipated seismic events for a particular area.

Don Kane, P.E.
CTTC Chair
cttc@ashraeli.org

#### Membership

Nothing is more important to us than YOUR membership and continued involvement in ASHRAE. Not only do we value your input, we value your experience. As such, we strive to actively notify you when your account is delinquent. We understand that it can be a hassle when your membership expiration approaches, so we make every effort to ensure our membership is aware of their status if they come past due, and as a service we offer frequent reminders. Here's how it works:

When someone joins ASHRAE, and Society has received their dues payment, their annual membership year begins and continues on a 12-month billing cycle.



- At three months prior to the one-year anniversary of the original billing, we contact you to renew your dues for the following year. If you choose not to renew, you become "unpaid" the first day after the expiration date.
- 2. For the first three months (0-90 days past due) after the anniversary date, we will continue to send friendly reminders while your membership remains active.
- 3. After the three months following the expiration date (91-180 days past due), your membership expires and you enter into a "grace" period. At this point we can no longer offer member benefits.
- 4. Six months after the expiration date (181 days past due), we "cancel" your membership, and subsequently remove you from our member roster.

Fortunately, even cancelled members can reinstate their membership and keep their original election dates by catching up on their dues. Or you can rejoin as a new member. Reinstatements must be processed manually by staff, but "Renewals" and "Rejoins" can be done anytime on the website by re-applying as a "new" member. You can easily check on your membership status and renew online at <a href="www.ashrae.org">www.ashrae.org</a>. Should you have any questions regarding this effort, do not hesitate to contact me at <a href="membership@ashrae.org">membership@ashrae.org</a>, or you can call ASHRAE headquarters at 1-800-5ASHRAE.

Thanks for your continued support!

Lee Feigenbaum, LEED AP BD+C Membership Chairman

#### **Grassroots Government Activities Committee (GGAC)**

As most of you know ASHRAE is no longer a US based society it has moved itself to a global society. During this past summer CRC ASHRAE wanted to started a new committee in their local chapters to help it grow globally so it created the GGAC. The main purposes of the GGAC is to serve as a communicator between the local ASHRAE chapters and national, serve as a communicator between the local ASHRAE chapters and other trade organizations, and to update local government officials on ASHRAE standards and technical issues.

So for this ASHRAE season we are having at least four joint engineering meetings. We are having our joint meetings with SMACNA, USGBC, LI-Geo, RSES. And we are looking to see if other organizations would like to join us for joint meetings. We will also be sponsoring an activity for the National Engineer's Week in February.



Charlie J. Lesniak, P.E.
Grassroots Government Activities Chair

#### **Student Activities**

October has been a busy month with Student meetings at SUNY Stony Brook and Suffolk Community College. This year we have we have welcomed 9 new student members and we look forward to adding more this month.

Our November meeting is designated a student activates night. We welcome our student members to this meeting. The dinner meeting will be free for those student members. In addition we will be supporting students who decide to join our chapter. Bring your filled out membership application for student membership! We look forward to seeing you. If you haven't seen it yet ASHRAE Student Zone <a href="http://www.ashrae.org/membership--conferences/student-zone">http://www.ashrae.org/membership--conferences/student-zone</a> is a great place for student to go on line and learn more about ASHREA and the multiple resources available to you, The 2014 Student Design Competition, K-12 /STEM Resource Center, The 2014 Solar Decathlon and much more.



The ASHRAE Senior Undergraduate Project Grant Program is still accepting applications. This program provides grants to engineering, technical and architectural schools worldwide with the goal of increasing student knowledge, learning and awareness of the HVAC&R industry through the design and construction of senior projects. Grants are to be used to fund equipment and supplies for senior projects and 2-year technical school projects that focus on ASHRAE-related topics. Grants may cover projects lasting from one academic term up to one year. See the Student Zone for more information. Students who are currently enrolled or soon to be enrolled in an engineering undergraduate degree should take a look at <a href="https://www.ashrae.org/scholorships">www.ashrae.org/scholorships</a>. There are 13 undergraduate scholarships available ranging from 10,000 to 3,000 dollars!

If you would like more information take a look at the website or see me.

Richard Halley Student Activities Committee Chair

#### **History - Brief History of the ASHRAE Handbook**

The lineage of the Handbook begins in 1922, when the American Society of Heating and Ventilating Engineers (ASH&VE) published its Heating and Ventilating Guide. Its purpose was stated as follows in its preface:

'The purpose of this new addition to the Society's publications is to provide the engineer, the architect and contractor alike, with a useful and reliable reference data book relating to the art of heating and ventilating. A wide range of data within the scope of the field is presented and every effort has been made to present the material in a practical and useful manner.'

Society Technical Committees, Task Groups, and individuals obtained data and prepared chapters using information from any authoritative source. Society-sponsored research provided much information. ASH&VE, which later became the American Society of Heating and Air-Conditioning Engineers (ASHAE), published The Guide until 1961, when it was merged with the American Society of Refrigerating Engineers' (ASRE) Refrigerating Data Book, published since 1932, following the merger of the two societies in 1959. The combined publication was called the ASHRAE Guide and Data Book. Separate volumes were issued for Fundamentals and Equipment, and Applications.

In 1967, the information in the Guide and Data Book was regrouped into a Handbook of Fundamentals, with separate Systems, Applications, and Equipment volumes. In 1973, the Guide and Data Book was renamed the ASHRAE Handbook. In 1985, separate I-P and SI unit volumes were issued, and in 1986, a separate Refrigeration volume was established. Although volume groupings have shifted over the years, the name and the essential method by which the ASHRAE Handbook is compiled has continued to the present.

Sources: Flink, Carl H. 1969. History of ASHRAE Guide and Data Book. ASHRAE Journal (Dec. 1969). Cansdale, James H., and MacPhee, Carl W. 1972. Technology Pacesetter: 1922---ASHRAE Guide and Data Book---1972. ASHRAE Journal (May).

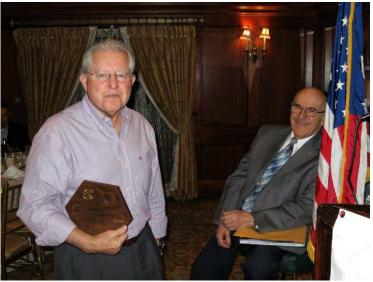
# October Chapter Meeting Photos













#### **October Chapter Meeting Photos**













#### **ASHRAE Conferences 2013-2014**

# **ASHRAE Conferences** 2013-2014

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

#### ASHRAE IAQ 2013: Environmental Health in Low Energy Buildings

Oct. 15-18, 2013 | Vancouver, BC, Canada www.ashrae.org/IAQ2013

Comprehensive overview presented via papers.

Co-organizer:



#### **ASHRAE 2014 Winter Conference**

Jan. 18-22, 2014 | New York, NY Jan. 21-23, 2014 AHR Expo www.ashrae.org/newyork

Bookstore Sponsor:



#### First International Conference on Energy and Indoor Environment for Hot Climates

Feb. 24-26, 2014 | Doha, Qatar www.ashrae.org/hotclimates

Papers focused on arid and humid hot climates.

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#### **High Performance Buildings Conference**

April 7-8, 2014 | San Francisco, Calif. www.hpbmagazine.org/hpb2014 State-of-the-industry presentations



#### **Efficient, High Performance Buildings** for Developing Economies

April 24-25, 2014 | Manila, Philippines www.ashrae.org/Developing2014 First ASHRAE conference on this topic.

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#### **ASHRAE 2014 Annual Conference**

June 28-July 2, 2014 | Seattle, Wash. www.ashrae.org/seattle

2nd Annual Research Summit presented.

#### 2014 ASHRAE/IBPSA-USA **Building Simulation Conference**

Sept. 10-12, 2014 | Atlanta, Ga. www.ashrae.org/Simulation2014 Single collaboration of Energy Modeling and SimBuild Conferences.

Organized by: ASHRA





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www.ashrae.org/conferences



#### **Fall 2013 Online Courses**



# Register Early & SAVE!

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\$259 (ASHRAE Member: \$199)

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Take 3 or more courses and save 15%.

# 2 Ways to Register

- 1. Internet: www.ashrae.org/onlinecourses
- Phone: call toll-free at I-800-527-4723 (US and Canada) or 404-636-8400 (worldwide)

NOTE: You may register up to 24 hours prior to an online course. Course times are in Eastern US Time Zone.

#### Earn Continuing Education Credits | Take 3 or More Courses & SAVE!

Courses are archived for a period of time after their initial presentation.

#### Commissioning

Commissioning for High-Performance Buildings

Wed, October 16, 2013, 1:00 pm to 4:00 pm, EDT

Instructor: Walter Grondzik, P.E., Fellow/Life Member ASHRAE, LEED® AP

#### **Environmental Quality**

IAQ Best Practices for Design, Construction and Commissioning

(formerly Project Management for Improved IAQ)

Wed, November 13, 2013, 1:00 pm to 4:00 pm, EST

#### **Fall 2013 Online Courses**

Instructor: Hoy Bohanon, P.E., Member ASHRAE, BEAP, LEED® AP

#### Troubleshooting Humidity Control Problems<sup>^</sup>

Wed, September 11, 2013, 1:00 pm to 4:00 pm, EDT

Instructor: Lew Harriman, Fellow ASHRAE

#### **Energy Performance**

#### Commercial Building Energy Audits Part 1 NEW!

(Registrants must attend both parts in order to receive credits) Mon, November 4, 2013, 1:00 pm to 4:00 pm, EST

Instructor: Jim Kelsey, P.E., ASHRAE Member, BEAP, LEED® AP

#### Commercial Building Energy Audits Part 2 NEW!

(Registrants must attend both parts in order to receive credits)

Wed, November 6, 2013, 1:00 pm to 4:00 pm, EST

Instructor: Jim Kelsey, P.E., ASHRAE Member, BEAP, LEED® AP

#### **Energy Management Best Practices\*** (formerly Energy Management in New and Existing Buildings)

Wed, October 2, 2013, 1:00 pm to 4:00 pm, EDT

Instructor: Richard Pearson, P.E., Fellow/Life Member ASHRAE

#### Energy Modeling Best Practices and Applications\* Part 1

(Registrants must attend both parts in order to receive credits)

Mon, September 16, 2013, 1:00 pm to 4:00 pm, EDT

Instructor: Erik Kolderup, P.E., Member ASHRAE, BEMP, LEED® AP and McHenry Wallace, P.E.,

Member ASHRAE, LEED® AP

#### Energy Modeling Best Practices and Applications\* Part 2

(Registrants must attend both parts in order to receive credits)

Mon, September 23, 2013, 1:00 pm to 4:00 pm, EDT

Instructor: Erik Kolderup, P.E., Member ASHRAE, BEMP, LEED® AP and McHenry Wallace, P.E.,

Member ASHRAE, LEED® AP

#### High-Performance Building Design: Applications & Future Trends\*

Wed, October 9, 2013, 1:00 pm to 4:00 pm, EDT

Instructor: Tom Lawerence, Ph.D., P.E., Member ASHRAE, LEED® AP

#### **HVAC Applications**

Air-to-Air Energy Recovery Applications: Best Practices\*

Wed, October 30, 2013, 1:00 pm to 4:00 pm, EDT Instructor: Paul Pieper, P.Eng., Member ASHRAE

#### **Fall 2013 Online Courses**

#### Air-to-Air Energy Recovery Fundamentals\*

Wed, October 23, 2013, 1:00 pm to 4:00 pm, EDT Instructor: Paul Pieper, P.Eng., Member ASHRAE

#### **Energy Efficiency in Data Centers\***

Mon, October 28, 2013, 1:00 pm to 4:00 pm, EDT Instructor: Don Beaty, P.E., Fellow ASHRAE

#### Standards & Guidelines

Complying with Standard 90.1-2010: HVAC/Mechanical\*^

Mon, September 30, 2013, 1:00 pm to 4:00 pm, EDT

Instructor: McHenry Wallace, P.E., Member ASHRAE, LEED® AP

#### Fundamental Requirements of Standard 62.1-2010<sup>^</sup>

Mon, October 21, 2013, 1:00 pm to 4:00 pm, EDT

Instructor: Hoy Bohanon, P.E., Member ASHRAE, BEAP, LEED® AP

#### Introduction to BACnet®

Mon, September 9, 2013, 1:00 pm to 4:00 pm, EDT Instructor: David Fisher, P.E., Member ASHRAE

#### Register Now

- \* This course is applicable for the Energy Savings Practices Career Enhancement Curriculum
- ^ This course is applicable for the IAQ Practices Career Enhancement Curriculum



#### **ASHRAE Winter Meeting 2014**







Full-Day Professional Development Seminars:

Sat., Jan. 18—Thurs., Jan. 23 \$485 (ASHRAE Member: \$395)

Half-Day Short Courses: Sat., Jan. 18—Weds., Jan. 22 \$159 (ASHRAE Member: \$119)



# **3** Ways to Register

- 1. Internet: www.ashrae.org/newyorkcourses
- Phone: call toll-free at 1-800-527-4723 (US and Canada) or 404-636-8400 (worldwide)
- 3. On-site: New York Hilton or Javits Center

(Online registration will close at midnight before the start of each seminar and course. After that, please register onsite at the ASHRAE registration booth at the New York Hilton or Javits Center.)

FOR MORE INFORMATION – GO TO THE ASHRAE LI WEBSITE – UNDER "ASHRAE 2014 WINTER CONFERENCE",
FOLLOW THE LINK TO ASHRAE LEARNING INSTITUTE

#### ASHRAE Certification at 2014 Winter Conference





Earn an ASHRAE certification while attending ASHRAE's Winter Conference and AHR Expo

ASHRAE has certified more than 1,600 HVAC professionals.

Are you eligible to join this elite group?

The 2014 ASHRAE Winter Conference and AHR Expo in New York City will bring together more than 30,000 visitors from around the world. All six of ASHRAE's certification exams will be administered at the conference and show on **January 23, 2014**.

- Building Energy Assessment Professional (BEAP)
- Building Energy Modeling Professional (BEMP)
- Commissioning Process Management Professional (CPMP)
- Healthcare Facility Design Professional (HFDP)
- High-Performance Building Design Professional (HBDP)
- Operations & Performance Management Professional (OPMP)

To participate in this exam administration, applications must be submitted by **January 3, 2014** for the program in which you're interested. There will be no on-site registration and seating is limited. For eligibility requirements and applications, go to www.ashrae.org/NYCExams.

An ASHRAE certification is a distinct honor held by top professionals in HVAC&R and allied fields and is recognized as a standard of excellence worldwide. Take advantage of the opportunity to earn an ASHRAE certification while you're attending ASHRAE's Winter Conference and AHR Expo.

There are several opportunities available to help focus study efforts leading up to the exams:

- Fall online courses
- E-learning courses
- CPMP Practice Exam

#### **ASHRAE Long Island Chapter Polo Shirts for Sale**

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