



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

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President's Message

Welcome back to another exciting year in our local ASHRAE Long Island Chapter. Thank you to Carolyn Arote, Past President for a great year and making this transition easy and rewarding. It has taken 6 years for me to get here and the journey has very rewarding.

Thank you to those of you who were able to attend our First Annual Clam Bake, it was a great success. That evening was dedicated to Evans Lizardos. Congratulation to Evans for his 50 years of service to ASHRAE, we appreciate all he does for us and ASHRAE National.

Presently we have a great board of governors that will be working hard towards another successful year. Our current Vice President, Andy Manos will be working on Programs. We have Richard Rosner on research promotion, Rich Haley responsible for student activities, and our historian and treasurer is Tom Fields. I would also like to welcome our newest board member Lee Feigenbaum. Lee will be greeting you at the door for our monthly meetings.

Speaking of the reception door, we will now be accepting credit cards! We have acquired a card reader and can scan you in. We are also looking at pre-payment options on line and will keep you posted.



CHAPTER MONTHLY MEETING

DATE:	Tuesday, September 11, 2012
TIME:	6:00 PM - Cocktails/Dinner 6:45 PM - Dinner Presentations 8:45 PM - Conclusion
LOCATION:	Westbury Manor South Side of Jericho Tpke. 25 Westbury, NY 11590
FEES:	
Members -	\$40.00
Guest -	\$45.00
Student -	\$15.00

Reservations requested, but not required.

Call (516) 333-7117

We just finished another Chapter Regional Conference (CRC) that was held in Boston. As you know ASHRAE is about being a leader in education and training. Even our board members go through training for all the positions that are held. This was a 3 day event with jam pack programs from training to motions, and nominations for service awards.

At the CRC our Long Island Chapter received many awards; it was obvious how hard the BOG worked last year and was a pleasure to be a part of. We received the following:

Student Activities **Andrew Dubel & Andrew Manos received Top Dog Awards**

Research Promotion **Andrew Manos received Bronze Treasure Ribbon, High Five Chevron, Full Circle Chevron, Endowment Patch, High Five Challenge, Outstanding Performance, & Honorable Mention**

Chapter Programs **Brian Simkins received Outstanding Performance**

Long Island Chapter Officers & Committees

ASHRAE 2012/2013 OFFICERS

POSITION	NAME	PHONE	FAX	EMAIL
President	Brian Simkins, LEED AP	203.261.8100	203.261.1981	bsimkins@accuspecinc.com
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Vice President	Richard Rosner, P.E.	631.737.9170	631.737.9171	rrosner@csflc.com
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Secretary	Don Kane, P.E.	631.737.9170	631.737.9171	dkane@csflc.com
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Board of Governors	Richard Halley	718.269.3809	718.269.3725	rchalley@trane.com
Board of Governors	Carolyn Arote	516.568.6550	516.568.6575	carote@adehvac.com

ASHRAE 2012/2013 COMMITTEES

COMMITTEE	NAME	PHONE	FAX	EMAIL
Programs & Special Events	Andrew Manos, LEED AP	631.632.2791	631.632.1473	andym22@optonline.net
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Research Promotion	Richard Rosner, P.E.	631.737.9170	631.737.9171	rrosner@csflc.com
Historian	Thomas Fields, P.E., LEED AP	212.643.9055	212.643.0503	thomas.fields@mgepc.net
Student Activities	Richard Halley	718.269.3809	718.269.3725	rchalley@trane.com
Young Engineers in Training	Andrew B. Dubel, P.E.	212.967.7651	212.967.7654	andrew.dubel@leapc.com
Webmaster	Thomas Fields, P.E., LEED AP	212.643.9055	212.643.0503	thomas.fields@mgepc.net
Nominating	Michael Gerazounis, P.E., LEED AP	212.643.9055	212.643.0503	michael.gerazounis@mgepc.net
Reception & Attendance	Lee Feigenbaum	516.558.2075		lfeigenbaum@emcor.net
PR & Engineering Joint Council of LI	Peter Gerazounis, P.E., LEED AP	212.643.9055	212.643.0503	peter.gerazounis@mgepc.net
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	peter.gerazounis@mgepc.net sfriedman@akfgroup.com

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President Message (Cont'd. from Page 1)

CTTC

**Donald Kane received
Award of Excellence, Honorable Mention**

PAOE

**Carolyn Arote received
High Honor Roll, Special Citation, & Star Award**

Also attending this year CRC was Thomas Watson, 2012–13 ASHRAE President. Mr. Watson asked members to broaden ASHRAE's horizons. "You, the ASHRAE member, are a problem solver. You've been a problem solver since you started in this industry,". "Now we need to apply these problem-solving skills to a wider group of people in order to serve communities throughout the world."

I am very excited for this year, the BOG has a lot of energy and there are a lot of great ideas and activities being planned. I look forward to growing our membership and meeting attendance, I believe we have a lot to offer and our continued education credits are a great opportunity for all our members. If you have any ideas or comments please feel free to contact me and you are always welcome to get involved and join a committee, we are always looking for volunteers to help support the mission of being problem solvers.

See you in September!

**Brian Simkins, LEED AP
President - Long Island Chapter**



Long Island Chapter - Past Presidents

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

PAOE FINAL POINTS TOTALS FOR 2011/2012

Chapter Members	Membership Promotion	Student Activities	Research Promotion	History	Chapter Operations	CTTC	Chapter PAOE Totals
299	1,075	645	2,767	375	1,150	1,225	7,237

Chapter Monthly Meeting - Program for 2012/2013

September 11, 2012 * At Westbury Manor Dinner Presentation – International Building Code Requirements for Design & Installation of HVAC&R Components from the Effects of Wind, Seismic, Snow & Flood Loads! Presenter: Richard Berger **1 PDH**	February 2013 NATIONAL ENGINEERS WEEK Feb 17 through Feb 23
October 9, 2012 * At Westbury Manor Dinner Presentation - ASHRAE 52.2, Testing Air Filters on Particle Size versus Efficiency Presenter: Danja McMillan **1 PDH**	March 12, 2013 * At Westbury Manor Dinner Presentation-- TBD Presenter: TBD **1 PDH**
Resource Promotion Night <i>Back to Basic Session I</i> **1 PDH**	YEA Night <i>Back to Basic Session III</i> **1 PDH**
November 13, 2012 * At Westbury Manor Dinner Presentation-- TBD Presenter: TBD **1 PDH** JOINT MEETING WITH SMACNA Student Activities Night, Membership Promotion, and YEA Night	April 9, 2013 ANNUAL FIELD TRIP TBD Presenters: TBD Dinner to follow
December 11, 2012 Holiday Party - Westbury Manor	TBD * Cherry Valley Club, Garden City, NY ANNUAL GOLF OUTING
January 8, 2013 * At Westbury Manor Dinner Presentation—Dispute Resolution such as Mediation, Arbitration and Litigation, the pros and cons of each and what to expect Presenter: Michael D. Ganz, Esq. **1 PDH** <i>Back to Basic Session II</i> **1 PDH**	May 14th, 2013 * At Westbury Manor Dinner Presentation-- TBD Presenter: TBD **1 PDH** Student Activities Night Refrigeration Night
January 2013 ASHRAE Winter Meeting Jan 28-30 Convention Center, Dallas	June 11, 2013 * At Westbury Manor PAST PRESIDENTS & OFFICER INSTALLATION
February 12, 2013 * At Westbury Manor Dinner Presentation-- TBD Presenter: TBD Joint Meeting with USGBC Resource Promotion Night Membership Promotion Night **1 AIA**	
Chapter Regional Conference (CRC) Region I	

September Program



Dinner Presentation

“International Building Code Requirements for Design & Installation of HVAC&R Components from the Effects of Wind, Seismic, Snow & Flood Loads”

Presented by

Richard C. Berger
Chairman, The VMC Group

**Attendees
Will Earn
1 PDH!**

DATE:	TUESDAY, SEPTEMBER 11, 2012		
Time:	6:00 PM - Cocktails and Hors D'oeuvres 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.		
Presentations:	<p>This month's presentation will discuss the following:</p> <p>The International Building Codes of 2006-2012 and their associated reference standard, ASCE 7-05 & 7-10 have radically changed anchorage, location and on line requirements concerning design standards and construction for all heating, ventilating, air conditioning and refrigeration systems for commercial and industrial applications. This one hour power point presentation will present some of the more critical aspects of the code highlighting typical design and installation issues that have led to in field failures some having severe consequences in the northeast. Derived from a full day seminar, attendees will develop a better understanding of how new and existing projects must now be approached. From designer to manufacturer to installer, each will better understand their expanded roles and the necessity of embracing those roles to limit professional liability.</p>		
About our Speakers:	<p>Richard C. Berger through his SGMEC Group is a frequent lecturer on Seismic Building Codes for non-structural building components in many states. He is a certified AIA/CES Registered Provider and his multi-state "Seismic Guidebook" is used by building code officials and industry designers alike. He has also designed and patented a series of products which are industry standards. Mr. Berger is the Chairman of The VMC Group. The VMC Group is comprised of four leading global brands that together represent the state of the art in shock, vibration, seismic and noise control; they are Aeroflex International Isolators, Amber/Booth, Korfund Dynamics and Vibration Mountings & Controls, manufacturers of seismic, shock, isolation, noise and bomb-blast protection products.</p>		

Research Promotion

Hello all, I am Rich Rosner and have just filled the position of Research Promotion Chairman for ASHRAE LI. I am following one of the greatest, if not our best, RP chairman, Andy Manos. Andy is going to be a hard act to follow, as they say, but he has left me great notes, forms, letters etc. to get me going and he has promised to see me through this from his new position as president elect. Andy, thanks for your hard work here, we all owe you big time!

Andy had started a product directory for our chapter and it has worked out extremely well for all. The Product Directory was prepared as a service to all members and as a service to the local HVAC industry. It is made available to all ASHRAE and non-ASHRAE members at no-cost and can be obtained at our monthly meetings or directly from our web-site. The Directory is intended to provide better communications between manufacturers and their sales representatives; engineers who specify products; contractors who purchase and install the equipment; and other interested parties. Product Directory listings are not limited to ASHRAE members. Remember the listings are not to be considered as advertising or endorsement by ASHRAE of any product, manufacturer or representative.

I would like to thank all the companies who participated in the annual 2012 Product Directory of Manufacturers and their Representatives and to let you know we will be making a 2013 edition and I will be contacting you. Having used this directory many times myself, I hope I can expand it even further this year. We seem to have a LI Lighthouse theme going for the front cover showing the Montauk and Fire Island Light houses so far. If you would like to submit your pictures of one of the other LI Lighthouses we will certainly consider them.

I will/have receive(d) some training at the CRC this August and additional specialized RP training in September. I will let you know after the training, probably in October, what this year's goals will be. I am hoping I can count on the continued support of all of our past contributors who have generously supported us over the years. I also look forward to gaining the support of new contributors this coming year. Please help support ASHRAE in any way you can.

I would be remiss if I didn't thank all the contributors listed below whom have donated to ASHRAE this past year:

INDIVIDUALS

Mr Andrew B Dubel, PE
 Mr Andrew E Manos, LEED AP
 Mr Anthony J Rosasco, Sr
 Mr Brian C Simkins, LEED AP
 Mr Carl E Graber, PE
 Ms Carolyn Arote
 Mr Charles J. Lesniak, PE
 Mr David G Kwalbrun
 Mr David Robert Jendras
 Mr Donald Kane, PE
 Mr Frank D Morgigno
 Mr James Hanna
 Mr James R Tauby, PE
 Mr Jerome T Norris
 Mr Jerome A Silecchia
 Mr John E Lizardos
 Mr John D Nally
 Mr Kevin Beirne
 Mr Leonard Locascio, PE
 Mr Michael Gerazounis, PE
 Mr Michael O'Rourke
 Mr Mordechai Chetrit
 Ms Nancy Roman
 Mr Raymond Schmitt
 Mr Richard Pearson, PE, LEED AP
 Mr Richard Gerbe
 Mr Richard L Rosner, PE
 Mr Ronald J Kilcarr, PE
 Mr Steven D Friedman, PE, HFDP, LEED AP
 Mr Thomas Fields, PE, LEED AP

COMPANIES

8760 Inc.
 Accuspec Inc.
 A D E Systems Inc
 Air Control Supply
 Albert Weiss Air Conditioning Products
 Alnik Mechanical Corp
 Applied Technologies of NY Inc
 ASHRAE Charleston Chapter
 Berne & Bob Leventhal Inc
 Best Climate Control
 Bladykas Engineering P C
 Building Cooling Systems
 Bush Wholesalers
 Captive Aire
 Carrier
 Catan Equipment Sales
 Chimney Design Solutions
 Clean Air Company
 County Energy Controls
 County Fair Air Conditioning Corp
 Daikin US Corp.
 EMTEC Consultants Professional Eng
 Environmental Air Quality
 Ferguson Enterprises
 Gil-bar Industries
 J-Mar Controls
 KLIMA NY
 Liebert-Emerson Network Power
 Lizardos Engineering Associates
 LPI Controls Inc
 Mason East Inc.
 Metro Air Products
 Miller Proctor Nickolas Inc
 Mitsubishi Electric & Electronics USA Inc
 MV Controls Inc
 PEPCO
 Platsky Company
 PVI Industries
 Rathe Associates
 Siemens Building Technologies Inc
 SRS Enterprises
 Technical Air Systems
 Tower Enterprises
 Venco Sales Inc.
 Wales Darby
 Wallace Eannace Associates, Inc

Research Promotion (Cont'd. from Page 6)

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 ASHRAE LONG ISLAND web site just click on the donate button.

4) You can contribute directly on-line. www.ashrae.org

*** Please make sure your accredit your contribution to the LONG ISLAND CHAPTER 006 ***

Thank you again for all your support!

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

Mission: To improve the quality of life and to answer tomorrow's questions through research TODAY.

Over \$2million raised annually to help fund \$10million in research projects and student grant-in-aids.

Research is used to update the Society's standards and guidelines.

Contributions come from more than 6,700 members, non-members, and companies.

100% of all funds raised go directly to research projects that support the HVAC&R industry.

Active research projects are conducted all around the world at various universities and private organizations.

ASHRAE RESEARCH PROMOTION

Important Links:

www.ashrae.org/rp

www.ashrae.org/contribute*

www.ashrae.org/consumer

www.ashrae.org/pressroom

www.ashrae.org/research

*ASHRAE is a qualified 501(c)3 and all contributions are tax deductible.

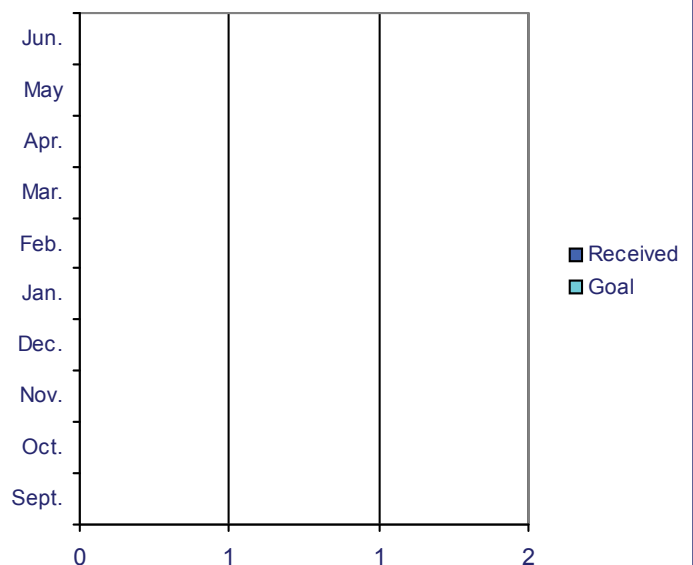
Important Contacts:

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ASHRAE RESEARCH PROMOTION

**Chapter Research Promotion Goal
 For 2012-2013 - \$13,881**



CTTC - Jerry Lee Lewis, The Three Little Pigs and HVAC Design

Welcome back after our Summer hiatus, it's time for another series of Chapter Technology Transfer Committee (CTTC) missives intended to stimulate interest in diverse areas of HVAC design, installation and maintenance. For those of you pondering the link between a troubadour from Louisiana, three porcine anthropomorphs and HVAC design.....read on.

While much of our time is spent determining the most appropriate equipment to use to achieve efficient, cost effective climate control (while attempting to meet the increasing need to achieve compliance with various performance and environmental standards and codes), it is to no avail if the equipment and the installation cannot survive the forces of nature to which it will be subjected. As Mr. Lewis noted (as most of us on Long Island did on August 23, 2011)....there's a *whole lotta shaking* going on....at least sometimes. Seismic compliance, while normally something considered by the "structural guy" cannot be ignored by the mechanical system designer. You may have had dozens of exemplary installations to your credit, but have one 30 foot x 10 foot roof-top unit end up in the parking lot after a storm, and your name is mud (ASHRAE JOURNAL, March 2006, "Wind Loads and Anchorage Requirements for Rooftop Equipment".) Wind loads, as our curly tailed friend found out, can cause extensive damage if proper codes are not followed (straw) or, if only minimum code requirements are met (sticks); sometimes it is necessary to go one step beyond (brick) the minimum required by the code. Codes and standards, such as the IBC, ASCE 7 and the like should be, as others have noted, not a ceiling to reach, but a floor to build up from.

What are the consequences of failing to adequately address seismic and wind loading? Either type of failure can result in loss of function (not permissible for a critical use or emergency use facility), leaking fluids and/or gases, damage to connected equipment and piping/wiring (perhaps fire if gas piping breaks and an electric arc occurs due to damaged wiring), damage to equipment and/or injury to personnel if equipment and/or piping comes loose. Additionally, for roof mounted equipment, dislodgement from either wind or seismic loading can uncover existing roof penetrations or create new ones, permitting entry of rain into the facility, damaging contents and, perhaps, the structure itself. Books have been written on both seismic and wind resistant construction, so let's take the "10,000 foot" overview of both topics, to better understand what our concerns should be and where coordination is needed with other design disciplines, especially structural.

Seismic requirements for the HVAC designer/installer relate to the mechanical equipment, piping and ductwork associated with the HVAC system. First, we need to know if the system components are subject to any seismic requirements. Even if one is fairly certain that a system or specific parts of it are exempt from code compliance, one should do their due-diligence and go through the "process", even if the end result is that it is exempt. Detailed notes are great for refreshing one's memory, and make dandy exhibits when being deposed!

Determine the seismic use group of the structure (IBC):

- Cat I - Low Hazard to human life in event of failure
- Cat II - All not in I, III, or IV
- Cat III - Substantial hazard to human life in event of failure
 - Places of assembly - >300 people in one area, >5,000 total occupancy
 - School or day care - Different occupancy limits if adult or children
 - non-surgical health care - >50 patients
 - non-cat IV containing toxic/explosive substances
- Cat IV - Essential facilities - includes
 - Fire/rescue/police
 - Emergency/Surgical health care facilities
 - Designated shelters
 - Aviation control
 - Water treatment required for maintaining pressure for fire suppression
 - Highly toxic materials
- Determine the Component Importance Factor (I_p):
 - 1 or 1.5 depending upon building use category, use, occupants and contents
 - HVAC equipment with a I_p of 1.5 may include
 - Fire/Smoke control
 - Heating/Cooling for occupant Health and safety

CTTC (Cont'd. from Page 8)

Heat to protect life safety systems (fire sprinkler piping, e.g.)
 Heating/cooling for critical care areas
 Natural gas heating systems

For the wolf's side of the story, go to <http://www.shol.com/agita/wolfside.htm>

- Determine Seismic design category of structure (IBC)
 Category A,B,C, D depending on:
 Use Group
 value of Maximum Spectral Response Acceleration (S_s @ .2 seconds, S_1 one (1) second - using site class (soil type) and site coefficients to obtain adjusted maximum values
 From maps in IBC
 Online (<http://earthquake.usgs.gov/hazards/designmaps/>)
 From value of calculated value, identify Seismic Design Category from IBC Tables.
- Identify if HVAC equipment is exempt
 Seismic Design Category (A or B)
 Seismic Design Category C and Importance factor (I_p) =1
 Component weight and height above floor (<400 lbs, 4 ft. or less above floor)
 Component weight less than 20 pounds
- If not exempt, calculate required Seismic Design Force (F_p) to be withstood to be certified based on:
 Component amplification factor (from IBC Table)
 Component Importance Factor (I_p)
 Average roof height of structure
 Component response modification factor (1-5) from IBC Table
 Design Spectral Response Acceleration (S_{DS}) at 0.2 seconds
 Component operating weight
 Height in structure where component secured

Using the Seismic Design Force value (F_p), specify equipment adequate to withstand that load. Most packaged equipment will require a shake-table test to determine compliance, making this a requirement that the supplier must be made aware of. Additionally, incorporate any details of installation required by the manufacturer to insure adequate continuous load path to the building structure. This will require coordination with the structural designer.

Piping will also require analysis to determine if it is exempt or not from seismic requirements. ASCE 7 incorporates exemptions for certain piping installations based on:

- Type and material of hanger.
- Distance from top of pipe to supporting structure.
- No bending moments.
- Space to permit movement through entire range without impact.

These exemptions are only for High Deformability piping:

- Ductile material, joined by
 welding
 brazing
 rolled groove type couplings

This is a useful site. Includes a map to locate site coordinates, which you can plug into the form to obtain S_s and S_1 values.

CTTC (Cont'd. from Page 9)

For piping which is not exempt, restraints must be employed to ensure that piping and building move as one. Type of restraint will be based on:

- Type of hanger
- Building Design Category
- Component Importance Factor
- Size of piping
- Hanger spacing
- Supported weight

Restraints may be a combination of longitudinal (axial) and transverse. Strut or cable type restraints may be employed. Cable type restraints, used in pairs, load the hangers in compression only. Struts, will increase tensile load in hangers as well as compressive loads. Hangers selected must be adequate for the restraint loads imposed. Piping which is (vibration) isolated requires special attention to the method of restraint so as not to defeat the isolation.

Ductwork, as does piping, needs to be adequately supported and restrained. Generally, there are fewer exemptions for ductwork than piping. Older editions of the IBC incorporated SMACNA standards, by reference, but this reference was removed in 2003. It is left to the judgment of the Authority Having Jurisdiction (AHJ) to approve SMACNA and/or other reference documents.

In-line components may be braced and supported as part of the duct system if 75 pounds or less.

- One end must be rigidly attached to ductwork
- flex or open end must be supported or laterally braced
- piping and electrical connections attached to in-line components must be attached with flex connections that allow adequate motion, without impact with other equipment, structure, piping or other objects.

A continuous load path to the building structure must be provided. If cable restraints are employed, they may not contact any intermediate points between the anchor point and the point of attachment to the ductwork. This will require coordination of disciplines.

Seismic Isolation Joints - Some structures will incorporate seismic isolation joints to control movement and to prevent damage to the structure. Wherever possible, piping and ductwork should be designed to avoid crossing these joints. Where it is necessary to do so, flexible connections, approved for this use, must be employed.

Wind Loads and Uplift requirements, starting with the 2000 IBC, have been addressed by ASCE 7 "Minimum Design Loads for Buildings and Other Structures". Wind speeds are now defined by the "3 second gust" value, rather than the "fastest mile wind speed". As a minimum, to determine wind loads and uplift forces, the following will be required:

- Estimates of design wind speed at site, modified by factors for:
 - Elevation
 - Terrain roughness
 - Topographical adjustments (located on hilltop or upper half of slope)
 - Building related adjustments
- Wind speeds from ASCE 7 used unless local conditions or regulations require otherwise
- Factors used, with wind speed, to obtain a value for velocity pressure include:
 - K_z - Velocity pressure exposure coefficient (includes terrain roughness factor)
 - K_{zt} - Topographic factor - increases loads for structures on the upper half or top of hills
 - K_d - Wind directionality factor - allows reduction if highest winds will not impinge on worst case location.
 - I - Importance factor - 1.0 for most buildings, increased to 1.5 for critical and essential facilities

CTTC (Cont'd. from Page 10)

Gust speeds are typically about 20 miles per hour (mph) faster than fastest-mile speeds.

The speed averaged over the time required for a mile-long column of air to pass a fixed point.

- After obtaining velocity pressure value, modify it using pressure coefficients or force coefficients ("shape factors".)
Gust factors of 0.8 are used for entire structures, however due to smaller relative size of Mechanical equipment, and the likelihood of more exposure, gust factors of 1.1 to 1.9 may be appropriate, especially when equipment located at or adjacent to roof edges due to flow separation resulting in complex flow conditions in these locations.
When calculating uplift forces, using uplift pressure coefficients in ASCE 7, the same the same factor used to increase loading for rooftop equipment (e.g. 1.9 for roof height 60 feet or less)
 - While an increase in unit mass will be advantageous with regard to uplift restraint, it will increase seismic restraint concerns.
 - FEMA 577, "Design Guide for Improving Hospital Safety in Earthquakes, Floods, and High Winds: Providing Protection to People and Buildings," provides a table with an attachment schedule for fans, small HVAC units and relief air hoods. The table is based on a 30-foot-tall building in Exposure Category C (flat open country) with a basic wind speed of 90 mph.
 - For non-critical or essential structures, this can be reduced accordingly
 Forces are proportional to the square of the wind speed...doubling the wind speed, quadruples the, for example, uplift force experience by rooftop equipment.
- All rooftop equipment, including goosenecks need to be considered and evaluated for compliance.

One can take this process to whatever level of detail that one is comfortable with, however, generally the mechanical designer will collaborate with the structural designer to ensure that all the HVAC equipment stays put (or only moves as it is intended to) no matter how much shaking or huffing-and-puffing is occurring. More importantly, as ultimately the anchoring and/or restraint is only as good as the structural attachment point and method of attachment, by bringing the structural designer on-board, one can minimize the chances of an incomplete or incorrect construction detail being developed.

Don Kane, P.E.
CTTC

Membership

Hello to all!! I am Charlie Lesniak and I am looking forward to being the Membership Chair again for 2012/2013. Our chapter will hold two Membership nights this year and their dates will be in the next month's newsletter. During the summer we had our first clam bake at the Babylon Fish and Clam on July 12th. During this event we honored Evans Lizardos and his 50 years of service to ASHRAE. I would like to thank Franz and his crew at Babylon Fish and Clam for being wonderful hosts for this event. The food was amazing and we had close to 90 people attend this event. This event was very successful and we plan on doing it again this summer.

Please visit the ASHRAE website at <http://www.ashrae.org> to review and update your bios, and to check if you are up to date with your membership dues. We are always looking for new members to join and attend our meetings.

If you have any problems or questions with your membership, or about the future clam bake please feel free to contact me. I'm looking forward to seeing everyone after this summer break.

Charles Lesniak, P.E.
Membership Chairman

Young Engineers in ASHRAE (YEA)

I hope everyone had a good summer. Fall is rapidly approaching and ASHRAE meetings will be starting again this month. Looking to the year ahead will be continuing our back to basics seminar series during our YEA nights. For those who don't yet know, YEA stands for Young Engineers in ASHRAE. Young being 35 and under as of Jan 1st. Our goal is to get younger members more involved in ASHRAE. We encourage you to invite younger employees and coworkers to our monthly meetings. We are also planning a couple of YEA social events separate from our meetings. Details will be forthcoming in this space. If you would like to get involved, we are looking for a couple more YEA committee members.

National YEA leadership conferences will continue into 2013. Dates should be posted to the YEA ASHRAE website and Facebook soon. We have sent several YAE members to these conferences, and everyone has had a positive experience. If you are thinking of going, come speak to myself or Charlie for more information.

Andrew B. Dubel, P.E.
YEA Chairman



Student Activities

Summer is quickly coming to an end and Schools are getting back in session. With the start of the new school year it's time to get learning back in high gear. This time of year always brings new opportunities for our Students and I look forward to helping introduce ASHRAE to as many as possible. Being new to this committee I ask for your ideas and assistance in making this a successful year. Please contact me with your thoughts or see me at the monthly meeting and we can review.

We will have two Student Activities Nights one in November and one in February. Let's get started on this early to get as many new faces at our meeting as possible. We have an excellent lecture schedule this year so I expect a great turn out.

Student Membership--Student Members are sponsored by full-grade Members or Associate Members. The student must be studying or have an interest in an HVAC&R industry-related field. A student eligible for ASHRAE student membership is a person matriculated in an approved course of study in a university, college, junior college, or technical institute, who is being educated in the arts and sciences covered by the Society's objectives. [Student ASHRAE Membership](#)

The Student Zone--The Student Zone web page offers valuable career and educational resources for ASHRAE Student Members. [Student Zone](#)

Please visit: <http://www.ashrae.org/students/> for more information on all the Student ASHRAE activities and opportunities.

Richard Halley
Student Activities Committee Chair



Donate your old Handbooks

Please bring your old handbooks to the meetings for donations to our student members who do not have complete sets at this time. Rich Rosner will be collecting them.

History - Past CRC Thoughts

Just a few weeks ago our board members attended the summer CRC (Chapter Regional Conference) meeting that was hosted by the Boston Chapter. Most all the Chapters assigned to Region 1 share the responsibility of hosting the event and we in the L.I. Chapter have had done our share. I'll leave it to the board members to brief you on this past meeting, what I wanted to share with you is a moment in time at one of the L.I. Chapters past CRC meetings. Check out this guy.



The speaker at the podium was a masterful orator and his presence captivated the room. He looked around at the audience and began "Weathermen, I salute you. I envy you because you defy the elements, stretch the seasons and warm, cool and ventilate the ambience. We park boys have had to be content with only four or five months of usefulness and now cherish the hope that it may be stretched to six or even seven. You are the potential makers of a new climate to rival what Florida has to offer to retirees on moderate income, not beautiful people at the villa estates, condominiums, country club and pueblo communities described in the real estate ads."

His speech continued and he spoke of the development of the north shore of Long Island, acquiring land and the construction of parkways and parks. "We had a hell of a time getting Caumsett, the Field Estate at Lloyd's Neck. I discussed a gift with Marshall Field for years. When we finally got the place, local opponents and environmental fanatics sought to prevent access by all but confirmed environmentalists and ekisticians. Fortunately we were able when they were not looking to acquire an adequate right-of-way but the road has not thus far been built. So for a while we have what in effect is a private public park." He continued on speaking of the construction of bridges and tunnels and of transportation via rail, road and water ferries. He spoke of industrialized economy, environmental and ecological issues and the planning and engineering of cities, suburbs and metropolises. At one point he even spoke of space. "What can be said about the recent gathering of scientists, technicians and bureaucrats at Princeton and one under way at Stanford University to discuss the transfer of millions of the world's inhabitants to artificial islands in space where the gravity of the earth and moon balance in eternal sunshine, to condominiums ingeniously designed for our surplus inhabitants?"

His speech was winding down and he spoke of Guy Lombardo and his unforgettable tunes. He closed with "Goodnight. I hope I have not outstayed my welcome and am still persona grata with those I regard as partners in the industry and the preservation of the countryside." It was Saturday evening September 20th, 1975 in the Harrison House at Glen Cove. The guest speaker was Mr. Robert Moses, speaking at the ASHRAE Region 1 CRC dinner hosted by the Long Island Chapter.

John Nally
History Committee

CRC 2012 Re-Cap

CRC Meeting held Saturday August 25, 2012 in Boston

Chapter Technology Transfer Committee Workshop Report:

Alexander Weiss, the new RVC for CTTC, along with Peter Oppelt and Mark Cambria, conducted the CTTC workshop, highlighting the responsibilities of the CTTC chairs and members at the Chapter level including; coordination of speakers/topics for general meetings, promotion of Continuing Education activities at the Chapter level for programs put on by the Chapter or the Society, and involvement in the submission of candidates for the various ASHRAE awards available. These awards, which are available for various achievements in both comfort cooling and refrigeration were explained, as was the process and schedule for submitting candidate projects for these awards.

Review of handbooks and obtaining one or more of the ASHRAE certifications was encouraged as well as chapter involvement in non-political government activities, although this is the last year that the government activity category will be under the aegis of CTTC.

Earning and reporting of Presidential Award of Excellence (PAOE) points was explained as was the benefit of the PAOE program as a stimulus for chapters to get more involved in the various activities. President Watson took the time to address the group and answer some questions related to community involvement by the chapters and, specifically, how media contact during such activities should be handled.

A schedule of necessary CTTC actions (MBO submittal, Program schedule and speaker list) as well details of the Distinguished Lecturer (DL) program were discussed. The need to act quickly to get one of the available DL slots was stressed.

In summary, the workshop identified the myriad areas of CTTC involvement and provided information to be used to facilitate the effective chapter CTTC function. Many reference documents to assist were noted to be available on the ASHRAE or from one of the RVCs.

Student Activities CRC Report:

Key Objectives for Student Activities 2012 are;

Encourage the study of HVAC&R

Promote careers in the HVAC&R industry

Introduce ASHRAE student membership

Support existing ASHRAE student branches and encourage the development of new ASHRAE student branches

Promote grant and design competition programs

Promote math and science to K-12 students and describe how the study of math & science can lead to an exciting career in engineering

YEA CRC Report:

The YEA meeting begin with each chapter talking about a success that they had with a YEA event this year.

Some great ideas were shared like Connecticut having a 15 min background/question and answer session before the meeting to bring young engineers up to speed on a technical topical which they may not have worked on before.

They have also been having a "YEA vs TOY" (To Old for YEA) softball match every year.

Boston chapter has been having success with social events apart from their meetings. They have also instituted an annual canoe race.

The meeting then broke into groups to brainstorm about YEA and generating interest in YEA.

The meeting reconvened and we closed with a discussion of regional YEA goals and new PAOE points options.

CRC 2012 Re-cap

Membership CRC Report:

Nationally ASHRAE is in the middle of its rebrand/ change of goals. They are looking more to be the Premier Design society of buildings. They are going to try and encompass all the trades. Because of this they would like us to start recruiting people who are outside of the HVAC range (i.e. architects, Electrical, Plumbing Engineers)

Nationally ASHRAE said it is a great idea to hold cross society events (between us, SMACNA, AIA, USGBC)

Nationally ASHRAE is looking for us to start helping the community to give back to everyone and to start getting our name out there.

They gave me a whole bunch of AHSRAE stickers with the new logo on it. Want One?

National gave us a lot of tools for making our jobs easier. Some of these tools are

A USB memory stick preloaded with power point slides describing our jobs.

Canned letters and forms to send to people and use as sign in sheets.

Instructions on how to interpret and use the data on the master list.

They are looking how to handle the exponential growth around the world since ASHRAE is now global. Region 1 is still the largest region, but Region-at-Large (rest of the world) is catching up.

ASHRAE Corporate people are easier to get a hold of.

SMACNA Technical Tour (Attended by Donald W. Kane, PE)

Sheet Metal Workers Local 17/Training Center

Friday's technical tour at CRC 2012, to the Local 17 Training Center provided an opportunity to see the facility and hear presentations on the various skills taught there. After a tour of the well appointed shop area, we heard presentations on the general nature of the training given as well as some in-depth discussion of the welding training. The facility instructs and has equipment for most processes (SMAW, GTAW, GMAW, Oxy-Fuel welding and Plasma cutting) and the work of some of the student illustrating the range of materials and processes were displayed. We then visited the CADD Classroom, where we were shown the software utilized, which permits going directly from design to cutting metal, and provides a material list automatically, to facilitate field checking for completeness. The Lobby of the facility has exhibits of tools and metal art, from sailboats to a stainless-steel "Tin Man". All-in-all, an enjoyable and informative tour.



CRC 2012 Re-cap



Carolyn Arote received High Honor Roll, Special Citation and Star Award



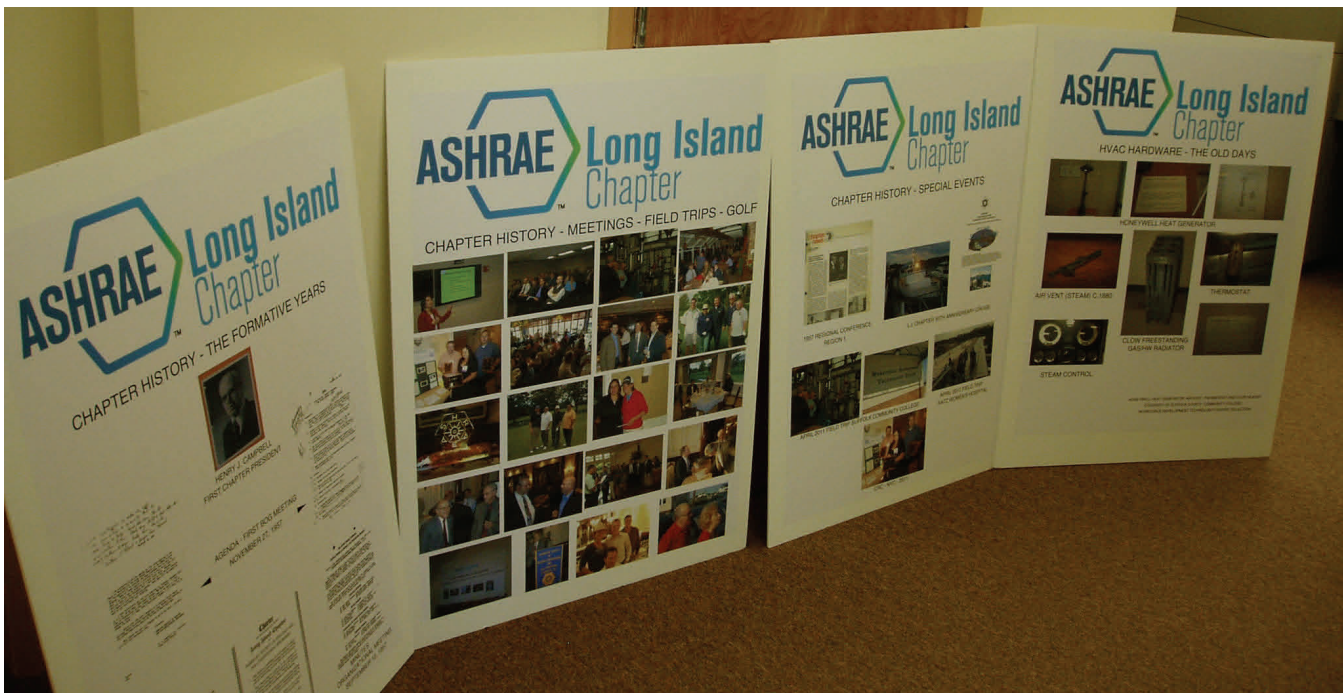
Brian Simkins, LEED AP received Outstanding Performance Award for Chapter Programs



Andy Manos, LEED AP received Bronze Treasure Ribbon, High Five Chevron, Full Circle Chevron, Endowment Patch, High Five Challenge, Outstanding Performance, & Honorable Mention for Research Promotion

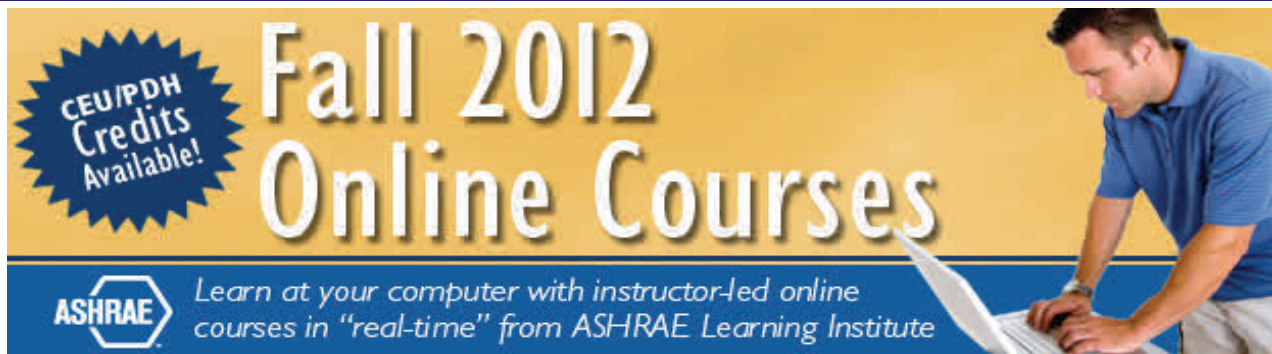


Donald Kane, PE received Award of Excellence, Honorable Mention Award for CTC



CRC History Boards

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NOTE: You may register up to 24 hours prior to an online course.
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District Cooling & Heating Systems: Central Plants Mon, September 10, 2012—1:00 pm to 4:00 pm, ET
 Instructors: Donald Bahnfleth & William Bahnfleth

The Commissioning Process & Guideline 0 (co-sponsored with BCA, IES, NEBB)
 Mon, September 24, 2012—1:00 pm to 4:00 pm, ET Instructor: Walter Grondzik

Basics of Air-to-Air Energy Recovery Wed, September 26, 2012—1:00 pm to 4:00 pm, ET
 Instructor: Paul Pieper

Basics of High-Performance Building Design Mon, October 8, 2012—1:00 pm to 4:00 pm, ET
 Instructor: Tom Lawrence **Take both High-Performance Building Design courses and save!**

Advanced High-Performance Building Design Wed, October 10, 2012—1:00 pm to 4:00 pm, ET
 Instructor: Jeff Ross-Bain **Take both High-Performance Building Design courses and save!**

Complying with Standard 90.1-2010 HVAC/Mechanical Mon, October 15, 2012—1:00 pm to 4:00 pm, ET
 Instructor: Mack Wallace **Take both Standard 90.1 courses and save!**

Complying with Standard 90.1-2010 Envelope/Lighting Wed, October 17, 2012—1:00 pm to 4:00 pm, ET
 Instructor: Joe Deringer **Take both Standard 90.1 courses and save!**

Fundamental Requirements of ASHRAE Standard 62.1-2010 Mon, October 22, 2012—1:00 pm to 4:00 pm, ET
 Instructor: Hoy Bohanon

Energy Management in New and Existing Buildings Wed, October 24, 2012—1:00 pm to 4:00 pm, ET
 Instructor: Richard Pearson

Fall 2012 Online Courses (Cont'd. from page 11)

Two-Part Courses

Registrants must attend both parts in order to receive CEU/PDH credits.
All courses are archived for a period of time after their initial presentation.

Energy Modeling Best Practices and Applications: HVAC/Thermal – Part 1

Tue, September 11, 2012—1:00 pm to 4:00 pm, ET Instructor: Erik Kolderup

Implementing Standard 189.1-2011 – Part 1 Mon, September 17, 2012—1:00 pm to 4:00 pm, ET

Instructor: Tom Lawrence

Implementing Standard 189.1-2011 – Part 2 Wed, September 19, 2012—1:00 pm to 4:00 pm, ET

Instructor: Tom Lawrence



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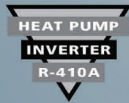


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