December 2012

THE LONG ISLAND SOUNDER

ASHRAE Long Island Chapter, Region 1...*Founded in 1957* www.ashraeli.org

SEASON'S GREETINGS

Inside this issue:

President's Message

Happy Holidays to everyone! It is a very busy time of year for all of us so don't forget to take some time to enjoy your family and friends. I am sorry to have missed last month's meeting thank you to Andrew Manos for helping out. It was also reported that Lee Feigenbaum did an excellent job and was well versed on his topic of HVAC Air Duct Leakage. We also had an amazing Student turn out thank you Rich Halley for all your hard work on Student Activities.

We had a nice collection at the meeting to be donated towards Sandy Relief, I thank all of you for your donations it may be a scratch in the bucket but it all adds up. I was also approached by the Bi-State Chapter of ASHRAE to see if we could organize a help day to support relief efforts. Well I think this is a valiant idea I am also a little concerned with the health and safety of our chapter members. We are looking into this and will see if there is a safe and valuable way we can support these efforts.

The ASHRAE Winter Conference and AHR Expo is fast approaching. This year's meeting is being held in the sunny and warm city of Dallas, TX. The meeting and expo will be taking place January 26-30, 2013. The **ASHRAE Learning Institute (ALI)** will offer 5 Full-Day Professional Development Seminars and 15 Half-Day Short Courses, including 5 new continuing education training courses, in conjunction with the 2013 ASHRAE Winter Conference and AHR Expo

To learn more about these programs please visit www.ashrae.org

I am always looking for ways to grow our membership and what we can do better to serve our industry. I guess the real question is **Why Join ASHRAE?**

Here are some reasons why:

Explore Technology ASHRAE Handbooks (yearly); an amazing resource for applications, fundamentals, and system design. New members may purchase the 2012 ASHRAE Handbook—*HVAC Systems and Equipment* at a discount. New Members and Associates will receive the 2013 ASHRAE Handbook—*Fundamentals* in June 2013.

Get Special Discounts New ASHRAE members - entitled to a 20 % discount on ASHRAE Handbook publications. Student Members (ASHRAE Handbook available at a discount); Affiliate Members (One-time discount off Member price 15% off) **;** Member Discounts on Publications, Continuing Education and Standards & Guidelines.

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CHAPTER MONTHLY MEETING

DATE:	**Tuesday, December 11, 2012** **ASHRAE Holiday Party**
TIME:	6:00 PM - 8:00 PM
LOCATION:	Westbury Manor South Side of Jericho Tpke. 25 Westbury, NY 11590
FEES:	
Member -	**No Fee**
Students-	**No Fee**
Non-Member-	**$40.00**

Reservations requested, but not required.

Call (516) 333-7117

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
President-Elect	**Andrew Manos, LEED AP**	631.632.2791	631.632.1473	andym22@optonline.net
Vice President	**Richard Rosner, P.E.**	631.737.9170	631.737.9171	rrosner@csfllc.com
Financial Secretary	**Thomas Fields, P.E., LEED AP**	212.643.9055	212.643.0503	thomas.fields@mgepc.net
Treasurer	**Charles Lesniak, P.E**	516.484.1020	516.484.0926	charles.lesniak@leapc.com
Secretary	**Don Kane, P.E.**	631.737.9170	631.737.9171	dkane@csfllc.com
Board of Governors	**Andrew B. Dubel, P.E.**	212.967.7651	212.967.7654	andrew.dubel@leapc.com
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
Membership	**Charles Lesniak, P.E.**	516.484.1020	516.484.0926	charles.lesniak@leapc.com
Chapter Technology Transfer (CTTC)	**Don Kane, P.E.**	631.737.9170	631.737.9171	dkane@csfllc.com
Newsletter Editor	**Liset Cordero**	212.643.9055	212.643.0503	liset.cordero@mgepc.net
Research Promotion	**Richard Rosner, P.E.**	631.737.9170	631.737.9171	rrosner@csfllc.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 Feigenbum, LEED AP BD+C**	516.558.2075		lfeigenbaum@emcor.net
PR & Engineering Joint Council of LI	**Brian Simkins, LEED AP**	203.261.8100	203.261.1981	bsimkins@accuspecinc.com
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

President Message (Cont'd. from Page 1)

ASHRAE Members' Insurance Program Various insurance products are available to ASHRAE members, through the Members' Insurance Program. This quality collection of insurance products offers valuable coverage with options that can be tailored to fit your needs and budget.

Become an Industry Leader Develop leadership skills, work with and lead ASHRAE committee members, and network with industry professionals at ASHRAE chapter, region, and society meetings. You can also keep updated with the industry via ASHRAE's Society Connections newsletter (monthly), and the HVAC Industry eNewsletter (weekly).

Advance your Career Look for employees & employment at ashraejobs.com and network with other HVAC&R professionals at ASHRAE meetings, participate in job postings, maintain your professional education and designation with 40+ courses, earning CEUs/PDHs/AIA LUs, and explore technical topics at ASHRAE chapter, region and society meetings.

Gain Industry Insight You're on the "team" with thousands of members who volunteer on industry-driven committees.

I look forward to seeing everyone at our Holiday Day party next week and if you have any questions or would like to get involved in our local chapter please do not hesitate to contact me or a board member.

Happy Holidays,

Brian Simkins, LEED AP
President - Long Island Chapter

ASHRAE™ 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'Rouke
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 POINTS FOR 2012/2013

Chapter Members	Membership Promotion	Student Activities	Research Promotion	History	Chapter Operations	CTTC	Chapter PAOE Totals
301	300	130	415	350	680	625	2,500

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****

October 9, 2012 * *At Westbury Manor*
Dinner Presentation—ASHRAE 52.2, Testing Air Filters on Particle Size versus Efficiency
Presenter: Danja McMillan

****1 PDH****

Resource Promotion Night

Back to Basic Session I -
Fundamentals of Pumping System Design *****1 PDH*****

November 13, 2012 * *At Westbury Manor*
Dinner Presentation-- HVAC Air Duct Leakage Testing and Testing Methodology

Presenter: Lee Feigenbaum, LEED AP BD+C ****1 PDH****

JOINT MEETING WITH SMACNA

Student Activities Night, Membership Promotion, & YEA Night

December 11, 2012
Holiday Party - Westbury Manor

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****

Back to Basic Session II -
Design and Analysis of Pumping System Design *****1 PDH*****

January 2013
ASHRAE Winter Meeting
Jan 28-30
Convention Center, Dallas

February 12, 2013 * *At Westbury Manor*
Dinner Presentation-- TBD
Presenter: TBD

Joint Meeting with USGBC
Resource Promotion Night ****1 AIA****
Membership Promotion Night

February 2013
NATIONAL ENGINEERS WEEK
Feb 17 through Feb 23

March 12, 2013 * *At Westbury Manor*
Dinner Presentation—Condensing Boilers Designs and Applications
Presenter: Ian Rowburrey

****1 PDH****

YEA Night

Back to Basic Session III -
The Rise of Variable Flow Primary and Fall of Primary/Secondary/Tertiary Pumping Systems
*****1 PDH*****

April 9, 2013
ANNUAL FIELD TRIP
Sysco Long Island
199 Lowell Avenue
Central Islip, NY 11722

400,000 sq. ft. Food Distributor including 88,000 sq. ft. of Freezer, Ammonia Refrigeration Plant and Hydrogen Fueled Fork Lift Trucks (Indoor Air Quality)

Dinner to follow

May 6th, 2013 * *Cherry Valley Club, Garden City, NY*
ANNUAL GOLF OUTING

May 14th, 2013 * *At Westbury Manor*
Dinner Presentation—Update on Refrigerants: Past, Present and Future
Presenter: Eckhard A. Groll, Dr. Eng.

****1 PDH****

Student Activities Night
Refrigeration Night

June 11, 2013 * *At Westbury Manor*

PAST PRESIDENTS & OFFICER INSTALLATION

Chapter Regional Conference (CRC) Region I
Burlington, VT August 15-17

Board of Governors Meeting Minutes

Attendees:

Andy Manos – Pres-Elect, Richard Rosner – V. President, Charles Lesniak – Treasurer, Don Kane – Secretary, Richard Halley – BOG, Carolyn Arote – BOG-Past Pres, Andrew DuBel - BOG

Guests: Steve Friedman, Alex Weiss – RVC CTTC – Region 1

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

Secretary-Don Kane noted that there were no corrections and/or additions to the minutes, as published in the Sounder. Minutes were approved as published.

President-Andy Manos, President-Elect, presided over the meeting in lieu of Brian Simkins.

Andy welcomed ASHRAE, Region 1, RVC-CTTC, Alex Weiss, who addressed the BOG. Alex noted that the LI Chapter History Chair had attained PAOE par. He further noted the various Technology and Refrigeration awards which are available from ASHRAE and encouraged the Chapter to pursue submission of deserving projects/individuals for these awards.

The BOG discussed what the chapter could do to assist those who were affected by Hurricane Sandy, and it was agreed that the Chapter's portion of the 50/50 drawing from the general meeting would be donated to the Red Cross for Hurricane relief use.

Andy and Charlie Lesniak presented the proposed Chapter budget for review. We need to have more fund raising activity, perhaps vendor nights, to assist in defraying Chapter expenses.

Andy reminded all to make sure to submit material for the ***Sounder*** and update PAOE points on-line, in a timely manner.

President-Elect/Programs - Andrew Manos stated that Mark McCracken has been requested as a presenter for the joint meeting with the USGBC. All other meeting presentations have been arranged.

Chapter Technology Transfer - Don Kane reported that he will be following up with the representative from Sysco to coordinate the technical presentation part of the April Refrigeration Field Trip. We will have ASHRAE Distinguished Lecturer Eckhard Groll at our May, Refrigeration Night, meeting, presenting an update on "Refrigerants – Past, Present and Future". Don noted that we are continuing to send ASHRAE course and event announcements to Liset, for publication in the ***Sounder***.

Treasurer - Charlie Lesniak reported that he will be addressing CRC related reimbursements after this evening's meeting. He further noted that the income tax reporting extension has been addressed and that he will consult with the past Treasurer on changes to the money-market funds and setting up a separate CRC account for expenses when the LI Chapter hosts the Region 1 CRC.

Research Promotion - Richard Rosner reported that the Chapter presently has received $2,345 toward the annual goal of $14,681. Contributors were recognized at last month's RP Night. The next RP Night will be at the February 2013 meeting. "Full Circle" for BOG contributions has been reached. Richard stated that the Vendor Book is in process and listings are being solicited. Andy Manos offered to assist with this if needed.

Membership Promotion - Charles Lesniak reported that there are no delinquent members to report this month. Charlie will coordinate with Rich Rosner and Liset to try to eliminate bad email addresses on the mailing list. Contact will be made with Andy Haimes (ashaimes@optonline.net) at EJCLI, to explore cross promotion and advertising for the organizations' activities.

Board of Governors Meeting Minutes

Student Activities - Richard Halley reported that he expects almost two dozen students at tonight's general meeting from Stony Brook and Suffolk County Community College (SCCC). He noted that a presentation had been made at Stony Brook and he has met with Eugene Silberstein at SCCC at the WORKFORCE DEVELOPMENT TECHNOLOGY CENTER (Grant Campus). Richard indicated that he will be starting work on the Chapter Scholarship program shortly. Those eligible should also be encouraged to apply for the scholarships available from ASHRAE National.

YEA - Andrew Dubel suggested that we look into joint NYC/LI chapter YEA events. A one-to-one outreach to YEA members/potential members was suggested to get and keep YEA members.

Honors and Awards - Carolyn Arote is researching requirements and procedures for ASHRAE service awards. Alex Weiss noted that there are many ASHRAE awards which are given based on years of service in certain positions. To this end, it is important that the ASHRAE Biographical information database be kept up to date. Other recognition is available for members who author and/or review codes and standards or are involved with government or public service. Alex also gave a brief summary of the procedure for those seeking Fellow grade of membership. This includes the nomination application (with bio and photo), the need for letters of sponsorship from two members (one of which should be a Fellow grade member), and a letter of sponsorship from the local ASHRAE Chapter. Alex offered his assistance to anyone pursuing this recognition.

Web Master - Andy Manos (for Tom Fields) reported that we have to send all updated information to Anthony so the website can be kept current.

Golf -Steve Friedman reported that the May 6th, 2013 event date has been confirmed with Cherry Valley.

Old Business - There was no old business.

New Business - Charlie Lesniak noted that a group, "Architects for Humanity" had been formed to assist with the storm rebuilding and would be a possible "partner" should the chapter decide to get involved with this as a community effort. Alex Weiss noted that, in light of the recent hurricane, it would be of interest to find out how ASHRAE members in the area were affected by the storm. A short article, with illustrations for publication in the ***Sounder***, as well as submission for publication in ***Insight***, was suggested. Likewise any Chapter related community service participation, storm related or otherwise, would be something worthy of documenting and would serve to support the ASHRAE Presidential initiative for community involvement.

Time/Place of next BOG Meeting & Holiday Party – December 11th, 2012. Westbury Manor

The meeting was adjourned at 6:00 PM..

Respectfully submitted

Donald W. Kane, PE
Chapter Secretary

December Program

ASHRAE Long Island Chapter's 2012 Holiday Party

"Member Appreciation Night"

Come and join us to celebrate a successful year.
We cordially invite you to a holiday cocktail party, featuring dinner, drinks, and holiday cheer…

DATE: **Tuesday, December 11, 2012**

TIME: 6:00 pm to 8:00 pm

LOC.: WESTBURY MANOR, Jericho Tpke. 25, Westbury (516) 333-7117

MENU: Hot and Cold Buffet, Coffee, Dessert and *"Open Bar"*

FEE: Complimentary Admission for ASHRAE Members & Students (FREE)!
Fee for Non-Members is $40.00 per person

RSVP: **By Friday, December 7, 2012 *(REQUESTED)*.**
Send your Name & Phone# to andym22@optonline.net

Hope to see you there.
RSVP today!

Season's Greetings and Best Wishes for the New Year
from the ASHRAE Long Island Chapter

Research Promotion

Happy Holidays to everyone, it is the season of giving and I am hoping everyone will keep ASHRAE in mind. This year's overall resource promotion goal is $2,190,000 with over 75 research projects on board. Our chapter is expected to raise over $14,681 towards the overall goal of which we have already raised $2,645. Please continue to support this worthy cause any way you can. I also look forward to gaining the support of a few new contributors this coming year.

I would like say 'thank you' to all the contributors, Corporate and Personal listed below whom have donated to ASHRAE this year:

Mr John D Nally	Mr Charles J. Lesniak, PE
Mr Roy Gustafson	Long Island ASHRAE Chapter
Twinco Supply Corporation	Mr Richard L Rosner, PE,
Mr Donald W. Kane, PE	Mr Raymond G Schmitt
Mr Brian C Simkins	ASAP Sales
Mr Andrew B Dubel	Mr Thomas Fields, PE
Mr Jerome T Norris	Mr James R Kolk
Mr Ricky Gaska	Mr Richard I Halley
Ms Carolyn Arote	Mr David Robert Jendras
Mr Andrew E Manos	Brandon Associates
Mr Ronald J Kilcarr, PE	Lizardos Engineering
Mr. Richard Pearson	

The Tax Man Cometh…Be sure to make your contribution for the 2012 tax year! With a little less than a month left in 2012, there is still time to support RP AND get your tax deduction!

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

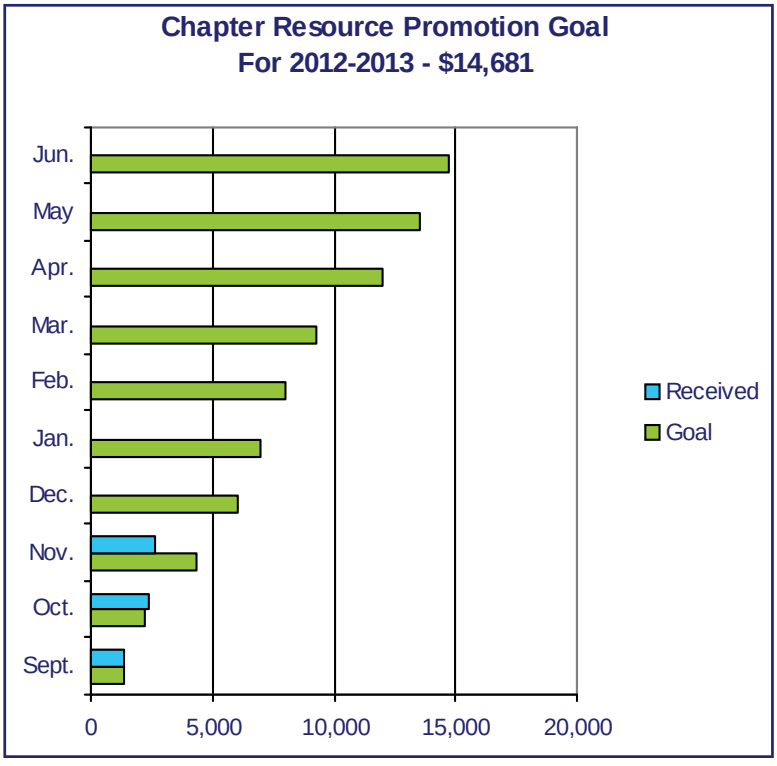
2) You can bring your check to any of the meetings and give it to me. I will mail it into headquarters.

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 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

Sensors and Controls for HVAC System Operation - A Real Turn-On....and OFF...and ON....and OFF.....

When thinking about HVAC system design, we generally think of the major components and equipment; compressors, condensers, air-handling units, boilers, ductwork, VAV boxes, energy-recovery devices, advanced electronic controls and Building Management Systems which will allow us to monitor and control building systems via the internet regardless of where we may be located. One can't deny that there is technology available today to provide more precise monitoring and control than ever before, however, it is easy to get caught up in developing the most efficient algorithm for our climate control computers to minimize the amount of energy needed to maintain our buildings at an acceptable comfort level and lose sight of the basic components which all of these advanced control systems depend upon for successful operation. When we get down to basics, we need to monitor and control temperature, air and/or water flow, humidity, pressure and differential pressure. Yes, some systems will also be measuring CO levels or other air-quality metrics, but without accurate measurement of the basic parameters noted above, efficient system operation will be an elusive target. Additionally, no matter how high-tech the equipment used, the ultimate accuracy and repeatability of the control system will be limited by the least accurate and repeatable component part. So...what is it we have to measure/control, and what are our options?

TEMPERATURE - Perhaps the most basic parameter, the devices available to measure this quantity range from the basic bi-metallic element thermostat, incorporating open electrical contacts(or, in those many legacy installations still functioning admirably, mercury wetted, sealed contacts) to more modern thermocouple or RTD based devices, which employ a host of electronic support circuitry to function and, in some cases, communicate with the rest of the building systems. A thermostat needs to have a way to sense temperature, open or close an electrical (or pneumatic) circuit and incorporate a way to ensure timely response to temperature changes without resulting in "overshoot" or "hunting". While the classic bimetallic element thermostat has provided yeoman's service for years (and continues to in many older installations), the environmental concerns about mercury have resulted in the replacement of these devices with electronically based devices, which eliminate the mercury-wetted contacts as well as the use of open-type contacts, using instead solid-state control devices. Open contact thermostats present the problem of calibration shift caused by pitting of the contacts and unreliable operation due to contamination of the contact surfaces. The shift in calibration can be extremely severe if someone has attempted to interface the thermostat with a DC control voltage, without providing suppression and snubbing devices in parallel with the contacts.

Another bimetallic type thermostat is the "disk" type. More familiar for use as limiting type devices (such as furnace over-temperature limit) there are extremely accurate, probe-type, disk element based thermostats available, however, as the contacts are subject to pitting, as noted above, the calibration shift which may occur with time precludes achieving the specified accuracy and repeatability over the life of the device.

As a result of the above environmental and durability concerns, one generally will find that an electronic thermostat, incorporating either thermocouple or RTD technology is used today. These devices also offer the possibility of programmability, communication and alarming of set points. While it is usually desirable that the thermostats be mounted in the return air path (on air based systems) this increases the likelihood that contaminants in the airstream (dust, animal fur and the like) will collect and, perhaps, block the openings in the thermostat housing, preventing communication of the room air with the sensing element.

While the mechanical hysteresis of the bimetal coil of the classic thermostat resulted in a "dead band" which provided separation between the turn-on and turn-off control points, sometimes assisted by a resistive "heat anticipator" to allow adjustment of furnace turn-on and turn-off, new thermostatic sensors measure the actual temperature, and circuitry (either self-contained in a "smart" thermostat or in the system control) controls the on/off points to eliminate overshoot and hunting.

Thermocouple and RTD elements may be incorporated into stand-alone thermostats, or used as remote sensors for system controls. When remote sensors are used, care must be taken to ensure compatible mating of sensors and controls. Use of the incorrect thermocouple type (or RTD for an RTD based system) will result in incorrect calibration at the least, and malfunction in the worst case.

The last temperature sensing device we will consider is the bulb and capillary type control. Seen mostly in cooling and refrigeration installations where the sensing bulb may be secured in intimate contact with the pipe or tube to be monitored, and the actuating mechanism/switch contacts located remotely, in an area convenient for wiring. While there are temperature sensors, using fiber optics, based on the temperature-related characteristics of a crystal element (typically Gallium Arsenide), this is not yet a commodity type device, being used in specialized applications.

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CTTC (Cont'd. from Page 9)

Humidity - While older mechanical humidstats relied on the characteristics of a strand of human hair, when exposed to different levels of moisture, used to actuate a mechanical link which operated a switch, used to control the On and Off states of a humidifier. Current humidstats rely on the resistance between two conductive elements, which varies based on the exposure to moisture. While generally more robust than the "hair based" type, the sensing element can be affected by contaminants in the airstream, and will not measure accurately if not located correctly in the duct flowing the air to be monitored.

Air Flow/Water Flow - Air flow may be measured using a mechanical (turbine) type anemometer or a hotwire or dual RTD anemometer. Alternately, air flow may be measured utilizing pressure/differential pressure measurements through a calibrated orifice or flow tube. Water flow may also be measured using differential pressure methods or by means of ultrasonic as well as thermal sensing similar to the hot-wire or dual RTD anemometer. In addition, fluid flow may be measured with paddle wheel, turbine or propeller based devices (among others). Most of these methods are somewhat intrusive and may be subject to fouling by contaminants. For this reason, provision should be made for periodic inspection/maintenance.

Sometimes, it is not necessary to know the actual magnitude of air/water flow, merely whether flow is occurring or not (to prove the operation of a pump or fan, for example). In this case, a vane type switch may be used which will operate a set of contacts when flow begins.

Pressure/Differential Pressure - In some cases, where only local indication is required, conventional pressure gauges may be utilized. However, unless located where routinely monitored, off spec operation of the system would not be noted until, sometimes, well after the deviation has occurred. A typical application where local indication may be used would be for indicating filter (air or water) restriction, as this condition generally will manifest itself as a gradual increase in restriction (differential pressure). More advanced air handling systems, incorporating the ability to vary air flow to accommodate gradual increase in filter restriction and annunciate the need to replace the filter element, would need to incorporate a pressure/differential pressure transducer (perhaps strain gauge based) to provide an actual value of the parameter, or a series of differential pressure switches to provide a signal at predetermined levels (generally a diaphragm based type).

In summary, regardless of what type of device one is selecting and the parameter being measured and/or monitored, the key point to keep in mind is to match the monitoring/measuring devices to the accuracy and functionality of the control system to which they are connected and the equipment being controlled. For example, using a high tech ultra-sonic level detection system for a condensate tank makes no sense when all that is needed is a float switch to turn on a pump. Not only is the extra functionality not required, the more complex device may be less reliable than a simple one.

Don Kane, P.E.
CTTC Chair

ASHRAE™
Long Island
Chapter

Young Engineers in ASHRAE (YEA)

Hope to see everyone at our holiday party this month. In the following month we will have another back to basic seminar in January. Evans will continue his series on the basics of hydronic systems intended for our YEA members. 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.

The ASHRAE winter meeting will also be held in January. There will be a number of YEA events during the conference including a YEA hospitality suite! For more information look at www.ashrae.com/YEA.

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. Sign up for updates at http://s.zoomerang.com/Survey/WEB22GM7QLYMCP/ .

Andrew B. Dubel, P.E.
YEA Chairman

Membership

First off I would like to say hello and to thank all our new members who signed up in October and November. Our chapter will hold our next Membership Promotion night during the February monthly meeting. 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. ASHRAE is looking to retain more student members thru their smart start program. Student members should look into this program. It will help you adjust to the membership status. Please see the ASHRAE website for more information.

Don't forget YOU are the strongest link

Improving HVAC&R for the built environment is not just a goal, it's part of the ASHRAE culture. Members like you share a common interest in providing engineering solutions that reduce energy needs, improve air quality and set standards that help the entire profession around the world.

Your membership in ASHRAE supports the improvement of quality of life around the world making big ideas reality while also providing you with professional resources, knowledge and connecting with your HVAC&R peers around the world. Your membership also affords you numerous benefits to stay connected with your peers, gain insight on industry issues and remain in the know about your profession.

Former members can either rejoin as a new member online or via print application, or reinstate. Many former members want to keep their years of tenure, so they choose to reinstate with back dues. To reinstate your membership, you must contact ASHRAE staff. Each former member's situation is different, so we want to offer the most suitable reinstatement option. Contact the Member Contact Center at 800-527-4723 (US/Canada) or 404-636-8400 (International) and ask a representative about reinstating your membership. You can also send an email to membership@ashrae.org, with the subject line of 'Membership Reinstatement.' If possible, include your former member number. Renew Membership

Charles Lesniak, P.E.
Membership Chairman

History

ON THIS DATE IN HISTORY:

Dec 11, 1962:
NYC authorities jettison plans for expressway across Lower Manhattan

On December 11, 1962, the **New York City** Board of Estimate unanimously votes against a plan for a $100 million elevated expressway across the bottom of Manhattan. The road, known as the Lower Manhattan Expressway, had been in the works since 1941. It was supposed to link the Holland Tunnel on the city's West Side with the Williamsburg and Manhattan Bridges on the east side, slicing right through the neighborhoods now known as TriBeCa and SoHo.

The powerful city planner Robert Moses had urged the city to build the Lower Manhattan Expressway because, he said, it would ease the cross-town traffic that made it very difficult and no doubt very annoying, to get from **New Jersey** to Long Island in a car. Other highway advocates agreed with Moses. "The people who reap the benefits of such a project are numbered in the millions," an official from one downtown business group told a reporter, while a spokesman for the Automobile Club of **New York** called the road "essential."

However, the proposed road stood to cause a great deal of damage to the city neighborhoods in its path. Some 1,972 families who lived in the roadway would have to move, as would 804 local businesses. This was perfectly all right with Moses and his allies--"when you operate in an overbuilt metropolis," Moses famously declared, "you have to hack your way with a meat axe"--but by 1962, preservationist groups had joined with residents of the threatened neighborhoods in protest against the road. Highways like the Lower Manhattan Expressway would make city life worse, not better, these anti-Moses activists argued; the road would make poor neighborhoods poorer and would actually lead to more traffic congestion, not less.

In December 1962, the Board of Estimate sided with this point of view and refused to give highway officials the right to condemn the land in the proposed right-of-way. In 1963, the City Planning Commission tried to "demap" the expressway, or kill the plan for good, but Moses and his allies fought back. The Board of Estimate reversed its 1962 decision in 1964, and the next year Mayor Wagner announced that he would begin to bulldoze as soon as possible. It took until 1969 for New York Governor Nelson Rockefeller to declare that Lower Manhattan was safe from the highway for good.

Thomas J. Fields, P.E., LEED AP
History Chair

Student Activities

I would like to thank all those Members who helped make our first student night of the year a success. We had over 20 students from Suffolk County and Stony Brook. The feedback I received from the students is they enjoyed the entire event but especially the time the spent talking at the tables with the membership about the industry and getting a real feel for what we all do on a day to day basis.

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

If you haven't seen it yet ASHRAE Student Zone http://www.ashrae.org/membership--conferences/student-zone is a great place for student to go on line and learn more about ASHREA and the multiple resources available to you, The 2013 Student Design Competition, K-12 /STEM Resource Center, The 2013 Solar Decathlon and much more.

Students who are currently enrolled or soon to be enrolled in an engineering undergraduate degree should take a look at www.ashrae.org/scholorships. 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

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Ashrae Society Updates

ASHRAE Learning Institute

Seminars & Courses at ASHRAE's Winter Conference and AHR Expo in Dallas, TX

2 WAYS TO REGISTER

Internet: www.ashrae.org/dallascourses

Phone: Call toll-free at 1-800-527-4723 (US and Canada) or 404-636-8400 (worldwide)

Full Day Professional Development Seminar

$485/$395 ASHRAE Member -- Earn 6 PDH/.6 CEU or 6 AIA LU credits

The Commissioning Process in New & Existing Buildings
Saturday, Jan 26 – 8:00 a.m. to 3:00 p.m.

Data Center Energy Efficiency
Saturday, Jan 26 – 8:00 a.m. to 3:00 p.m.

Healthcare Facilities: Best Practice Design & Applications
Saturday, Jan 26– 8:00 a.m. to 3:00 p.m.

Complying with Standard 90.1-2010
Tuesday, Jan 29 – 9:00 a.m. to 4:00 p.m.

Energy Modeling Best Practices and Applications: HVAC/Thermal
Tuesday, Jan 29 – 9:00 a.m. to 4:00 p.m.

Half Day Short Courses

$159/$119 ASHRAE Member -- Earn 3 PDH/.3 CEU or 3 AIA LU credits

Air-to-Air Energy Recovery Fundamentals
Sunday, Jan 27 – 2:00 p.m. to 5:00 p.m.

Humidity Control: Applications, Control Levels and Mold Avoidance
Sunday, Jan 27 – 2:00 p.m. to 5:00 p.m.

Air-to-Air Energy Recovery Applications: Best Practices NEW
Monday, Jan 28 – 8:30 a.m. to 11:30 a.m.

Application of Standard 62.1-2010: Multiple Spaces Equations & Spreadsheet
Monday, Jan 28 – 8:30 a.m. to 11:30 a.m.

Combined Heat & Power: Design through Operations
Monday, Jan 28 – 8:30 a.m. to 11:30 a.m. NEW

Understanding Standard 189.1-2011 for High-Performance Green Buildings
Monday, Jan 28 – 2:45 p.m. to 5:45 p.m.

Introduction to Ultraviolet Germicidal Irradiation (UVGI) Systems NEW
Monday, Jan 28 – 2:45 p.m. to 5:45 p.m.

Commissioning Process & Guideline 0
Monday, Jan 28 – 2:45 p.m. to 5:45 p.m.

Evaluating the Performance of LEED®-Certified Buildings
Monday, Jan 28 – 2:45 p.m. to 5:45 p.m.

Optimization of HVAC Systems & Components: Techniques & Real-World Examples NEW
Tuesday, Jan 29 – 9:00 a.m. to 12:00 p.m.

Energy Management in New and Existing Buildings
Tuesday, Jan 29 – 9:00 a.m. to 12:00 p.m.

Avoiding IAQ Problems
Tuesday, Jan 29 – 9:00 a.m. to 12:00 p.m.

Designing Toward Net Zero Energy Commercial Buildings
Tuesday, Jan 29 – 1:00 p.m. to 4:00 p.m.

Understanding & Designing Dedicated Outdoor Air Systems
Tuesday, Jan 29 – 1:00 p.m. to 4:00 p.m.

Laboratory Design: The Basics and Beyond NEW
Tuesday, Jan 29 – 1:00 p.m. to 4:00 p.m.

Ashrae Society Updates

ASHRAE's HVAC Design Essentials

HVAC Design: Level I—Essentials

ASHRAE created the HVAC Design: Level I — Essentials training to provide intensive, practical training for HVAC designers and others involved in the delivery of HVAC services. Developed by industry-leading professionals, this training provides the fundamental and technical aspects of HVAC design in commercial buildings.

In three days, gain practical skills and knowledge in designing, installing 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. Engineered drawings of the ASHRAE Headquarters renovations will be incorporated to expose participants to plan reading and graphical understanding of system design.

Training Topics:

- Fundamentals
- Heating/Cooling Load Calculation
- System Selections
- Common System and Components
- Cooling System
- Basic Design of Hydronic Systems
- Basic Design of Air Systems
- Control/BAS Commissioning
- Sustainable Design
- Project Management and Other Soft Skills
- Introduction to Technical Sales

BONUS! FREE copy of The Green Standard and User's Manual. A $200 value.

HVAC Design: Level I — Essentials

When: January 14–16, 2013
January 30–February 1, 2013 *
March 18–20, 2013
June 3–5, 2013
August 12–14, 2013

Where: ASHRAE Headquarters, Foundation Learning Center, Atlanta, GA

* Crowne Plaza Dallas Market Center 7050 Stemmons Fwy, Dallas, TX 75247

Cost: $1,239 (ASHRAE Member: $989)

Company Discount: Enroll 3 or more participants from the same company at the same time and save.

Who Should Attend:

- Engineers new to the HVAC industry
- Facilities managers involved in new construction or major renovation projects
- Technicians, sales representatives, and others who would like to gain a better understanding of HVAC system design knowledge

Ashrae Society Updates

HVAC Design: Level 2—Essentials

ASHRAE's HVAC Design: Level II — Applications training provides participants with advanced instruction on HVAC system designs for experienced HVAC designers or those who completed the HVAC Design: Level I — Essentials training.

Developed by industry-leading professionals, the training provides participants with information about designing, installing and maintaining HVAC systems that can be put to immediate use. Participants will gain an in-depth look into Standards 55, 62.1, 90.1, 189.1 and the Advanced Energy Design Guides, as well as a range of other HVAC topics including:

- HVAC equipment and systems
- Energy modeling
- Designing mechanical spaces
- Designing a chiller plant
- BAS controls

Training Topics:

- Fundamentals
- Heating/Cooling Load Calculation
- System Selections
- Common System and Components
- Cooling System
- Basic Design of Hydronic Systems
- Basic Design of Air Systems
- Control/BAS Commissioning
- Sustainable Design
- Project Management and Other Soft Skills
- Introduction to Technical Sales

BONUS! FREE copy of ASHRAE's latest GreenGuide. A $100 value.

HVAC Design: Level II — Applications

When: January 17–18, 2013
March 21–22, 2013
June 6–7, 2013
August 15–16, 2013

Where: ASHRAE Headquarters, Foundation Learning Center, Atlanta, GA

Cost: $829 (ASHRAE Member: $679)

Company Discount: Enroll 3 or more participants from the same company at the same time and save.

Who Should Attend:

- Engineers with HVAC design experience
- Participants who attended HVAC Design: Level I — Essentials
- Architects who want an in-depth understanding of HVAC design
- Construction project managers involved with mechanical systems

Your Instructors

Julia Keen, Ph.D, P.E.,
ASHRAE Member, HBDP

link to bio

Joel Primeau, P.Eng, ASHRAE Member, HBDP, LEED AP

link to bio

Ashrae Certifications to be Offered at AHR Expo and Ashrae Winter Conference

ASHRAE has certified more than 1,000 HVAC professionals. Are you one of them? Earn recognition for your knowledge and expertise.

The 2013 ASHRAE Winter Conference and AHR Expo in Dallas will bring together more than 30,000 visitors from around the world to learn, network, and buy and sell HVAC&R products and services. All six of ASHRAE's certification exams will be administered at the conference.

- **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, please submit an application by January 14, 2013 for the program in which you're interested. There will be no on-site registration and seating is limited. To get started, go to **www.ashrae.org/ASHRAEcertificationatAHR** to find out more about the programs. Each program has its own Candidate Guidebook that contains important information about eligibility criteria and available resources to help prepare for the exam. We encourage you to read the Guidebook before completing a program's application.
Take advantage of the opportunity to earn an ASHRAE certification while you're attending ASHRAE's Winter Conference and AHR Expo. I look forward to seeing you in Dallas!

Eric Dupree
Communications Coordinator - Certification

ASHRAE™
Long Island
Chapter

Farmingdale State College's Office of Business Outreach

PMP® Certification Exam

Jumpstart the New Year 2013

Farmingdale State College
State University of New York

PROUDLY PRESENTS

Project Management Professional (PMP) Course

Our instructor will use the case study method first made popular at the Harvard Business School to analyze real-world problems using the skills, tools, and techniques taught in this course. Classes meet each day for one week to provide the 35 contact hours required to qualify to take the PMP exam.

PREREQUISITES: Students should have some previous project management experience. For those wishing to take the PMP exam, PMI requires that you possess (a) a bachelor's degree or higher, and at least 4500 hours of experience within the last 36 months in leading and directing project tasks; OR (b) high school diploma/equivalent and a minimum of 7500 hours of experience within the last 60 months. Course materials include a complimentary ***Amazon Kindle*** *e-reader for each student.*

TO REGISTER

Call Office of Business Outreach
631-420-2316

Tuition: $ 1,800

January 14TH 15TH 16TH 17th 18th 2013
Monday – Friday 8:00am-4:00pm
(Snow dates January 22ND & 23RD)
Ask for our group rate
Special discounts available for Veterans
Course available on-site at your company

Project Management Institute
Registered Education Provider

The PMP applies to many fields: Construction, IT, Engineers, Architects, Land Developers, Electrical/Plumbing Contractors, Facility Managers, Health Care Administrators, Federal/State Contracting, and HR Directors.

Grail, LLC has been reviewed and approved as a provider of project management training by PMI. As a PMI registered education provider (REP), Grail has agreed to abide by PMI-established quality assurance criteria. PMP is a registered certification mark of the Project Management Institute, Inc.

Farmingdale State College's Office of Business Outreach

Farmingdale State College
State University of New York

Project Management Institute
Registered Education Provider

OFFICE OF BUSINESS OUTREACH

Project Management Certification Program

Program Description:

The Farmingdale State College/Project Management Institute (PMI) provides a comprehensive review program to prepare you for the Project Management Professional (PMP®) Project Management Certification Exam, and satisfies the 35 contact-hour requirement needed to qualify for the PMP® exam. The program covers the nine major project management subject areas: Quality, Scope, Time, Cost, Human Resources, Communications, Risk, Procurement and Integration Management.

Requirements:

- Minimum high school diploma or equivalent with at least 7,500 hours experience leading and directing project tasks in the last 5 years;
- Bachelor's degree with at least 4,500 hours experience leading and directing project tasks within the last 3 years

If you are in the field of : Construction, IT, Engineering, Architecture, Electrical or Plumbing Contractor, Facility Manager, Health Care Administrator, Federal or State Contractor, or Human Resource Director, you will want to distinguish yourself with this credential.

PMI is a registered trademark and service mark of the Project Management Institute, Inc. PMP is a registered certification mark of the Project Management Institute, Inc.

Corporate discounts available for for three or more registrants from one firm, active or retired military personnel, and higher education faculty and staff.

For more information, call or email MaryEllen DeCicco at 631-420-2316
deciccm@farmingdale.edu

Grail has been reviewed and approved as a provider of project management training by PMI. As a PMI Global Registered Education Provider (R.E.P.), Grail has agreed to abide by PMI-established quality assurance criteria.

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ADVERTISEMENTS

If you would like to place an advertisement in The Long Island Sounder please contact our Chapter Treasurer, Mr. Charles Lesniak, P.E @ 516.484.1020 or via email charles.lesniak@leapc.com for further details. Thank you.

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