

THE LONG ISLAND SOUNDER



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

www.ashraeli.org

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

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President's Message

Welcome to the March edition of the Long Island Sounder. Thank you to all those who attended last month's meeting; it was great to see such a high turnout despite the weather. The weather proved to cause mayhem for the chapter as our presenter Mr. Knight, ASHRAE Distinguished Lecturer who was scheduled to present on ASHRAE's BEQ Energy Labeling Program was grounded in the Atlanta Airport 6 hours before the start of the meeting. Fortunately, our own Hooman Daneshmand was able to step in with a very interesting presentation on balancing systems and regulating valves. His presentation was well received with multiple applications for our members. This month we welcome Will Becchina - Director of Business Development at Energy Wall. His presentation will cover the fundamentals of heat and moisture transfer as they relate to air-to-air energy recovery devices. A description of the key metrics used to evaluate technologies and examination of the associated psychometric processes will be examined. A description of commercially available air-to-air energy recovery technologies commonly used in commercial applications will be reviewed



Now the February has pasted and we are finally done with winter (I have shoveled snow three times this month and it's 19 degrees outside) We will soon be able to drop our snow shovels and pick up our golf clubs, Hard to believe but true. It's time to practice our swing as The Annual LI ASHRAE Golf Outing is approaching quickly. Our 20th annual outing will be Monday, May 6th at the Cherry Valley Club in Garden City. The outing kicks off with brunch at 11:00 a.m., shotgun start golf at 12:30 p.m., followed by a 5:30 p.m. post golf cocktail hour and 6:30 p.m. dinner reception. Please note, this event fills up fast, and there is a two-foursome limit per company. This is a great event and our major fund raiser to support the chapter for the upcoming year, we rely on our sponsors for the success of this event please make every effort to match or do better than what you did in previous years. Please see the flyer in this newsletter for more information on registering.

Finally, I want to thank all ASHRAE members for their help with Resource Promotion. Last month was RP night, and we are happy to report that we are on target to reach our goal this year. Please look for more information in the RP article in the newsletter from our RP Chair Andy Manos

Rich Halley
President - Long Island Chapter

CHAPTER MONTHLY MEETING

| | |
|-------------------|---|
| DATE: | Tuesday, March 12, 2019 |
| TIME: | 6:00 PM - Cocktails/Dinner 7:00 PM - Dinner Presentation 8:45 PM - Conclusion |
| LOCA-TION: | Westbury Manor 1100 Jericho Tpke. Westbury, NY 11590 |
| FEES: | |
| Members - | \$45.00 |
| Guest - | \$60.00 |
| Student - | \$15.00 |

Check the ASHRAE Website for Society news and to join/renew membership!

<http://www.ashraeli.org>

Long Island Chapter Officers & Committees

ASHRAE 2018/2019 OFFICERS

| POSITION | NAME | PHONE | EMAIL |
|---------------------|---------------------|--------------|--|
| President | Richard Halley | 516.490.1616 | president@ashraeli.org |
| President-Elect | Frank Paradiso | 631.632.2791 | president_elect@ashraeli.org |
| Vice President | James Hanna | 718.269.3768 | vice_president@ashraeli.org |
| Financial Secretary | Bill Artis | 516.732.2519 | finsec@ashraeli.org |
| Treasurer | Matthew Vitrano | 212.643.9055 | treasurer@ashraeli.org |
| Secretary | Murat Bayramoglu | 631.312.8818 | secretary@ashraeli.org |
| Board of Governors | Michael Nigro | 212.643.9055 | bog1@ashraeli.org |
| Board of Governors | Elizabeth Jedrlnic | 516.490.1621 | bog2@ashraeli.org |
| Board of Governors | Andrew Blom | 631.626.1695 | bog3@ashraeli.org |
| Board of Governors | Michael Razzano | 516.805.3084 | bog4@ashraeli.org |
| Board of Governors | Andrew B. DuBel, PE | 516.484.1020 | bog5@ashraeli.org |

ASHRAE 2018/2019 COMMITTEES

| COMMITTEE | NAME | PHONE | EMAIL |
|--|-------------------------------------|------------------------------|--|
| Programs & Special Events | Frank Paradiso | 631.632.2791 | programs@ashraeli.org |
| Membership (MP) | Bill Artis | 516.732.2519 | membership@ashraeli.org |
| Refrigeration | Michael Razzano | 516.805.3084 | |
| Chapter Technology Transfer (CTTC) | Donald W. Kane, PE Michael Nigro | 516.524.7258 212.643.9055 | cttc@ashraeli.org |
| Grassroots Government Activities (GGAC) | Andrew Blom | 631.626.1695 | ggac@ashraeli.org |
| Newsletter Editor | Liset Cordero | 212.643.9055 | editor@ashraeli.org |
| Research Promotion (RP) | Andy Manos | 631.632.2792 | rp@ashraeli.org |
| Historian | Elizabeth Jedrlnic | 516.490.1621 | historian@ashraeli.org |
| Student Activities (SA) | Frank Paradiso James Hanna | 631.632.2791 718.269.3768 | sa@ashraeli.org |
| Young Engineers in ASHRAE (YEA) | Elizabeth Jedrlnic | 516.490.1621 | yea@ashraeli.org |
| Webmaster | Bill Artis | 516.732.2519 | web@ashraeli.org |
| Nominating | Michael Gerazounis, PE, LEED AP | 212.643.9055 | nominating@ashraeli.org |
| Reception & Attendance | Matthew Catan | 407.489.6684 | reception@ashraeli.org |
| PR & Engineering Joint Council of LI (EJCLI) Liaison | Andrew Manos, LEED AP | 631.632.2792 | pr@ashraeli.org |
| Golf Outing | Peter Gerazounis, PE LEED AP | 212.643.9055 | golf@ashraeli.org |
| Awards | Brian Simkins | 203.261.8100 | bsimkins@accuspecinc.com |

ASHRAE LI, P.O. Box 79, Commack, NY 11725

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Chapter Monthly Meeting - Program for 2018/2019

| | |
|--|---|
| September 11, 2018 * At Westbury Manor  Dinner Presentation – Adiabatic Cooling Solutions Presenters: Robert Gebhard, Michael Silverstein, Alex Schafer **1 PDH** Refrigeration Night | March 12, 2019 * At Westbury Manor Dinner Presentation - Fundamentals of Energy Recovery Ventilation Presenter: William Becchina **1 PDH** YEA Night |
| October 9, 2018 * At Westbury Manor  Dinner Presentation— Refrigerants Presenter: William E. Dietrich **1 PDH** | April 9, 2019 Annual Field Trip |
| November 13, 2018 * At Westbury Manor  Dinner Presentation-- System Effect Presenter: Mark Terzigni **1 PDH** Joint meeting with SMACNA Membership Promotion Student Activities Night and YEA Night Resource Promotion Night | May 6, 2019 * Cherry Valley Club, Garden City, NY ANNUAL GOLF OUTING |
| December 11, 2018 * At Westbury Manor  Dinner Presentation-- Eliminating the High Cost of Over Pumping / Commercial Gas Detection System Overview & Application Presenters: Robert J. Rybka / Ronald Sweet **1 PDH** | May 7, 2019 * At Westbury Manor Dinner Presentation - TBD Presenter: **1 PDH** Refrigeration Night Student Activities Night |
| January 8, 2019 * At Westbury Manor  Dinner Presentation— Condensing Boiler Combustion Technologies Presenter: Kyle Bottorff **1 PDH** | June 11, 2019 * At Westbury Manor Free Buffet Dinner for Members PAST PRESIDENTS NIGHT & OFFICER INSTALLATION STUDENT SCHOLARSHIPS TO BE AWARDED ASHRAE History Quiz and prize Give-A-Ways |
| January 20-24, 2019  ASHRAE Winter Meeting Chicago, IL | June 8, 2019 (4pm-8pm) * Dixie II @ Captree State Park Boat Basin, NY ANNUAL FISHING TRIP |
| February 12, 2019 * At Westbury Manor –  Dinner Presentation— ASHRAE's BEQ Energy Labeling Program Presenter: M. Dennis Knight, P.E. **1 PDH** Membership Promotion Night Resource Promotion Night | June 14, 2019 Joint YEA Event with LI, NYC & Westchester (Details to follow) |
| February 18-24, 2019  NATIONAL ENGINEERS WEEK EJCLI Seminars | August 15-17, 2019 CHAPTERS' REGIONAL CONFERENCE (CRC) REGION I |

February Meeting Pictures



February Meeting Pictures



Long Island Chapter - Past Presidents

| | | | |
|------|-----------------------------|------|------------------------------------|
| 1958 | H. Campbell, Jr. PE | 1988 | Michael O'Rourke |
| 1959 | Clyde Alston, PE | 1989 | Mel Deimel |
| 1960 | Sidney Walzer, PE | 1990 | Robert Rabell |
| 1961 | Sidney Gayle | 1991 | Gerald Berman |
| 1962 | William Kane | 1992 | Donald Stahl |
| 1963 | Louis Bloom | 1993 | Ronald Kilcarr |
| 1964 | Milton Maxwell | 1994 | Jerald Griliches |
| 1965 | Will Reichenback | 1995 | Walter Stark |
| 1966 | Joseph Minton, PE | 1996 | Joe Marino |
| 1967 | Irwin Miller | 1997 | Norm Maxwell, PE |
| 1968 | Walter Gilroy | 1998 | Alan Goerke, PE |
| 1969 | Charles Henry | 1999 | Frank Morgigno |
| 1970 | William Wright | 2000 | Michael Gerazounis, PE, LEED AP |
| 1971 | Louis Lenz | 2001 | Ray Schmitt |
| 1972 | Ronald Levine | 2002 | Steven M. Stein, PE |
| 1973 | Henry Schulman | 2003 | Andrew Braum, PE |
| 1974 | Myron Goldberg | 2004 | Claudio Darras, P.E. |
| 1975 | John N. Haarhaus | 2005 | Craig D. Marshall, P.E. |
| 1976 | Richard K. Ennis | 2006 | John Nally |
| 1977 | Kenneth A. Graff | 2007 | Peter Gerazounis, PE, LEED AP |
| 1978 | Evans Lizardos, PE, LEED AP | 2008 | Steven Friedman, PE, HFDP, LEED AP |
| 1979 | Albert Edelstein | 2009 | Steven Giammona, P.E., LEED AP |
| 1980 | Ralph Butler | 2010 | Nancy Román |
| 1981 | Robert Rose, PE | 2011 | Carolyn Arote |
| 1982 | Timothy Murphy, PE | 2012 | Brian Simkins, LEED AP |
| 1983 | Leon Taub, PE | 2013 | Andrew Manos, LEED AP BD+C |
| 1984 | Raymond Combs | 2014 | Richard L. Rosner, P.E. |
| 1985 | Edward W. Hoffmann | 2015 | Thomas J. Fields, P.E., LEED AP |
| 1986 | Jerome T. Norris, PE | 2016 | Donald Kane, P.E. |
| 1987 | Abe Rubenstein, PE | 2017 | Andrew Dubel, P.E., LEED AP |

PAOE POINTS FOR 2018/2019

| Chapter Members | Chapter Operations | CTTC | Electronic Communications | GGAC | Historical | Membership | Research Promotion | Student Activities | Chapter PAOE Totals |
|-----------------|--------------------|------|---------------------------|------|------------|------------|--------------------|--------------------|---------------------|
| 282 | 895 | 575 | 50 | 800 | 350 | 610 | 900 | 100 | 4,280 |

March Meeting Program



Dinner Presentation

“Fundamentals of Energy Recovery Ventilation”

Presented by

William Becchina
Director of Business Development
Energy Wall

**Attendees
 Will Earn
 1 PDH!**

| | | | |
|---------------------------|---|-------------|---|
| DATE: | TUESDAY MARCH 12, 2019 | | |
| Time: | 6:00 PM - Cocktails and Hors D'oeuvres 7:00 PM - Dinner Presentations 8:45 PM - Conclusion | Fee: | \$ 45.00 Member \$ 60.00 Guest \$ 15.00 Student |
| Location: | WESTBURY MANOR (516) 333-7117 1100 Jericho Tpke., Westbury, NY 11590 Directions are posted at @ www.ashraeli.org | | |
| Presentation: | This month's presentation will cover the fundamentals of heat and moisture transfer as they relate to air-to-air energy recovery devices. A description of the key metrics used to evaluate technologies and examination of the associated psychometric processes will be examined. A description of commercially available air-to-air energy recovery technologies commonly used in commercial applications will be introduced. All attendees will receive 1 PDH. | | |
| About our Speaker: | <p>Will Becchina holds a BS and MS in Mechanical Engineering and has served for the past two years as Director of Business Development at Energy Wall. Energy Wall has created a ERV system with very unique design features compared to traditional ERV's on the market. In his roll at Energy Wall, Will oversees sales channel development and assists with product requirements oversight and engineering application support.</p> <p>Will has 15+ years' experience in mechanical systems design, controls design, and energy modeling, and has worked for a number of mechanical companies throughout his career. His most role in the mechanical community, was as founder of Stony Brook Building Science LLC, where he also collaborated on NSF and DOE grant proposals. As schedules permit, Will also serves as an adjunct lecturer at Stony Brook University Department of Mechanical Engineering, teaching a course in HVAC design.</p> | | |

Young Engineers in ASHRAE (YEA)

March is already upon us. The year is off to a quick start! We have a few amazing YEA events upcoming so please be on the lookout!

Upcoming Events

Skeet Shooting – March 2019

Public Speaking Seminar- May 2019

Joint LI, NYC, Bi-State Event in NYC- June 2019

If anyone is interested in attending the summer conference and shadowing a society officer, please consider applying for Leadership U!



Program Overview

The Leadership U program in Kansas City will start at 6:00 pm on Friday, June 21, 2019 and will end on Thursday, June 27, 2019.

If selected to participate in the program, the costs of attending the conference (transportation, lodging and registration) will be covered by ASHRAE Society. Transportation includes the cost of your flight or gas mileage, your hotel room will be covered for a check in on Friday, June 21, 2019 and check out on Thursday, June 27, 2019, and you will be registered for the conference and three social events (Welcome Party, President's Luncheon, Members Night Out). Expenses not covered by the program include baggage fees, parking, taxis/public transportation, and food.

Those selected to participate in the program will document their experiences and share them with the YEA Committee, their chapter and their region.

Program Requirements

Required:

ASHRAE chapter leadership

Attendance at an ASHRAE Annual or Winter Conference. (Exceptions may be made if an applicant has fulfilled all other requirements and their score qualifies them for selection.)

Recommended:

ASHRAE Regional leadership

ASHRAE Society leadership, which can include Technical Committee participation

Attendance at YEA Leadership Weekend or YEA Leadership International

In addition, applicants are reviewed based on their responses to the non-experience questions on the application. This includes your overall YEA participation, how ASHRAE has benefitted you, your interest in participating in Leadership U, and your aspirations within ASHRAE.

Elizabeth Jedrlinic

YEA Chair

Elizabeth.jedrlinic@trane.com

Research Promotion

I would like to thank the companies who have participated in the annual 2019 Product Directory of Manufacturers and their Representatives. The Product Directory has been prepared as a service to all its members and as a service to the local HVAC industry. It will be made available to all ASHRAE and non-ASHRAE members at no-cost and can be obtained from our monthly meetings or directly from our web-site. There's still time if you would like your company listed in the directory please contact me.



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 and the listings are not to be considered as advertising or endorsement by ASHRAE of any product, manufacturer or representative. This year's overall resource promotion goal is \$2,500,000 with over 75 research projects on board. Our chapter is expected to raise approximately \$19,950 towards the overall goal of which we have already raised \$10,740. 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 like say 'thank you' to all the contributors listed below whom have already donated to ASHRAE this year:

INDIVIDUALS

Ronald J Kilcarr, PE, CEM
Peter Gerazounis, PE
Michael Gerazounis, PE
John D Nally
Andrew E Manos
William Artis, Jr
Michael Nigro
Matthew Vitrano
Donald Kane, PE
Elizabeth Jedrlinic
Frank Paradiso
Richard Halley
Murat Bayremoglu

Robert Fuchs
Andrew Dubel
Charles Lesniak PE
Brian Simkins
Andrew Blom
Thomas Fields
Kenneth Mueller
Richard Halley
Paul Freeman
James Tauby
Jerome Norris

COMPANIES

Catan Equipment Sales
Accuspec, Inc
Gil-Bar Industries, Inc.
Trane
ASAP Sales
RPG Associated
Chimney Design Solutions
MV Controls
Chimney Design Solutions
VMC East, Inc
ADE Group

Miller Proctor Nickolas Inc.
Technical Air Systems Inc.
Vertiv – Liebert
Albert Weiss – Air Conditioning Products, Inc.
RPG Associates
Mitsubishi Electric

CONTRIBUTIONS CAN BE MADE IN THE FOLLOWING WAYS:

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

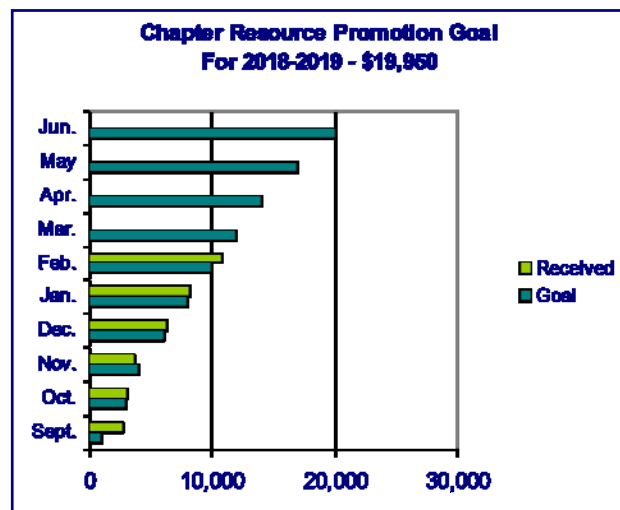
Andrew Manos, LEED AP BD+C
ASHRAE Research Promotion Chair
c/o Stony Brook University
Campus Planning, Design and Construction
Research and Support Services, Building 17, Suite 160
Development Drive, Stony Brook, NY 11794-6010

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 of your support!

Andrew Manos, LEED AP BD+C
Research Promotion Chair

Membership Promotion

Welcome to the Membership Promotion section of the newsletter. Our MP Committee is responsible for recruiting and retaining members of ASHRAE Long Island, and to ensure our members are receiving value for their membership. Throughout the year, we will be hosting numerous meetings and events for our members to encourage professional development and networking. We will be using our MP Blog to update the chapter on all of our events, as well as posting information regarding chapter updates, and recognizing member achievements.

<http://www.ashraeli.com/blog>

Bill Artis
Membership Chair



Student Activities

Many of our student members will be looking for internships or graduating this coming spring. If your company has an opening for entry level engineers, please let us know. They, and we, appreciate the opportunities.

ASHRAE Long Island is also sponsoring several student scholarships. We will be issuing several scholarships this year for current college students and high school seniors. A separate mailing will be sent with the applications.

If you are involved in a project that you could share with our Students please contact me at frank.paradiso@stonybrook.edu.



As always I looking for slightly use ASHRAE handbooks that you are no longer in need of so that we may give them out to students that can put them to good use.

Thank you for your support of ASHRAE student members.

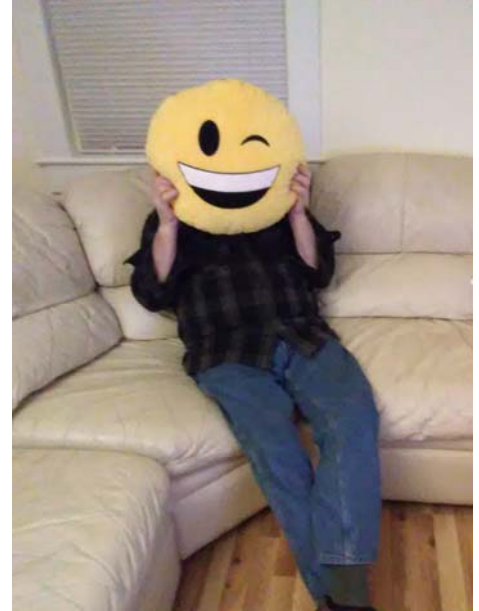
Frank Paradiso
Research Promotion Chair

James Hanna
Research Promotion Chair

CTTC

Heat and Energy Recovery....Or..How Do We Keep the BTUs Where We Want Them!

When one reviews the history of comfort conditioning it becomes obvious that it has always been entwined with the concerns of indoor air quality (IAQ). When Og discovered fire and how to burn branches within his cave to heat it in the winter while providing a way to cook his brontotherium burgers he, no doubt, became aware of the hazy cloud filling his abode, thus becoming the first person to be concerned with IAQ. As history shows us, the native American's tepee was an improvement over Og's cave, as they could at least vent the smoky particulates out the top of the tepee, assisted by its conical shape. However, while more effective at improving the IAQ, the ingress of cold air in the winter required the addition of more clothing layers to achieve thermal comfort. As civilization progressed, the use of fireplaces and, later, dedicated boilers/furnaces helped to make the indoor air cleaner while the availability of relatively inexpensive fuel allowed for tempering the thermal conditions (as the prevailing structures allowed for copious amounts of outside air to enter). In more recent years, as the cost of fuel increased, modern man tried to minimize the amount spent on heating by using more insulation and creating sealed houses. While the heating costs (as well as cooling costs, where installed) were reduced, the quality of the air rapidly declined. This brings us up to current times, where requirements for energy efficiency and improvements in IAQ still seem to be at odds with each other. However, at least now we have solutions for this quandary...Heat and/or Energy Recovery devices.



While sometimes lumped under the same banner, there is a major difference between the two technologies. Specifically, heat recovery devices (e.g. HRVs) only recover sensible heat in the airstream while Energy/Enthalpy recovery devices (e.g. ERVs) recover both sensible and latent heat (though the latent heat may be recovered by different means).

If one refers to ASHRAE Handbook – HVAC Systems and Equipment, Chapter 4 notes the increasing use of recovery systems due to the higher percentage of outside air and increased calls for higher operating efficiencies. The economic benefit (up to 20% reduction in system heating/cooling capacity) is also noted, as well as the requirement in ASHRAE 90.1 for energy recovery when Air Handling Units flow more than 5,000 cfm and the outside air used is in excess of 70%. This is especially the case in health care facilities and some laboratory environments.

Chapter 26 of the ASHRAE Handbook gets more into the nitty-gritty of heat and energy recovery and notes that ERVs can be used to satisfy outside air requirements of ASHRAE 62.1 and 62.2 while minimizing energy costs. Again, the difference between heat recovery (HRVs) and Energy/Enthalpy recovery (ERVs) is stressed as well as the ability of some HRVs to maintain humidity levels. While the Handbook identifies six (6) recovery technologies (Fixed Plate Heat Exchangers, Rotary Wheel Heat Exchangers, Heat Pipes, Runaround Loops, Thermosiphons and Twin Tower Enthalpy Recovery Loops) for the moment we will concern ourselves with Fixed Plate and Rotary Wheel exchangers, the parameters used to evaluate, application of appropriate technology and concerns to be addressed when selecting/specifying such equipment.

The key factors to be considered when selecting recovery equipment include; pressure drop (restriction) of air flow, additional fan power needed (to overcome restriction), frost control (where needed), recovery efficiency and Cross-flow contamination (especially critical for health care or laboratory applications). The effectiveness of a particular system is the ratio of the actual energy/moisture recovered versus the maximum possible amount. It is also necessary to perform an economic analysis comparing the cost of energy saved versus the additional cost to maintain and operate the recovery equipment chosen.

While the ASHRAE Handbook delves into several categories of recovery (Process to Process, Process to Comfort and Comfort to Comfort) it is only the latter (Comfort to Comfort) that will be considered at this point. In a Comfort to Comfort system, the enthalpy of the building supply air is lowered during warm weather and raised during cooler weather. This lowering or raising of the supply air enthalpy is achieved by transferring energy between the supply and exhaust airstreams, using a recovery device. While the HRV's can only recover sensible heat, there are applications where their use is suitable (e.g. low outside air humidity and high latent space loads, including indoor swimming pools). Where pre-heating or pre-cooling of the outside air stream is required all year, the ERV is the equipment of choice. The ASHRAE

CTTC

Handbook identifies the characteristics of an “Ideal” air-to-air energy exchanger;

- Allows temperature-driven heat transfer between participating airstreams
- Allows partial-pressure-driven moisture transfer between the two airstreams
- Minimizes Cross-Stream transfer of air or other gases
- Optimizes energy recovery performance to minimize pressure drop while maintaining reasonable cost, size and weight.

Comparisons of different equipment can be based upon the above. Further comparison can be based upon the type of configuration of air flow paths; parallel flow (maximum theoretical efficiency of 50%), Counter-flow (maximum theoretical efficiency of 100%...though generally not achieved) and Cross-flow (typical efficiencies of 50-70%, or 60-85% for multiple pass exchangers). Other differentiating terms are: “Latent Heat Transfer”, which recovers the latent heat in two stages (condensation-liberating the latent heat) and transfer (as sensible heat) to the other airstream; and “Latent Energy Transfer”, when moisture is transferred from one airstream to the other without condensation occurring. The effectiveness for moisture transfer may not be equal to the effectiveness for heat transfer.

Air leakage between the incoming outside air and the outgoing exhaust air may be categorized as Cross-Flow Leakage or Carryover. Cross flow is primarily a result of differences in static pressure between air paths. It is less likely to occur with fixed plate exchangers. Carryover occurs in rotary wheel exchangers when exhaust air is trapped in cavities in the media and is carried into the outside air stream.

The final part of the economic analysis is the cost of maintenance of the selected system. This will be application dependent as, for example, installation in a kitchen environment may require additional filtration and cleaning due to the presence of fats and oils. A dusty environment (such as a wood shop) would result in fouling related pressure drop unless appropriate pre-filtering is installed. Where climate conditions require it, frost prevention may be necessary to allow for proper operation of the system.

In summary, Enthalpy wheels will generally be more compact and, while cross-leakage can be minimized, it may not be practical to eliminate it (an important consideration for health care and laboratory applications). Fixed Plate exchangers, on the other hand, have no moving parts (increased reliability) and up to 80% waste heat recovery is possible. Since moisture is condensed, it is not transferred. If humidity transfer is not desired Fixed plate exchangers may be suitable.

As usual, there is no “one size fits all” approach, but by being aware of the capabilities and limitations of each technology and, with an awareness of the intended application, an intelligent choice can be made.

Donald W. Kane, P.E.
CTTC Chairman

Grassroots Government Activities Committee (GGAC)

The following is from the ASHRAE’s government affair update:

NYC Proposes Incorporating ANSI/ASHRAE Standard 211 and ASHRAE Certifications Into Local Law 87

The New York City Department of Buildings has issued notice of public rulemaking that would recognize ANSI/ASHRAE Standard 211-2011, Standard for Commercial Building Energy Audits as part of Local Law 87. This local law provides the city's regulations for energy audits and retro-commissioning. The amendments to the law also recognize ASHRAE Certified Building Energy Assessment Professionals and High-Performance Building Design Professionals and those who can perform the audits and retro-commissioning.



A public hearing on these additions to the local law will be held on March 12, 2019 beginning at 10:00 am in Spector Hall at 22 Reade Street in NYC. Comments may also be emailed to dobrules@buildings.nyc.gov or through the city website at <http://rules.cityofnewyork.us/>. The deadline for comments is March 12, 2019. Click here for more information and to view the proposed changes.

Andrew Blom
Grassroots Government Activities Chair

History

Since the March Meeting is YEA night, I thought it would be interesting to look back at the History of the YEA Committee.

The YEA Committee was created in 1999. YEA became an Ad Hoc Committee led by past society VP Jim Vallort. This Ad Hoc Committee would design a draft copy of the Young Engineers Handbook. However, the YEA subcommittee did not hold its own separate meeting until the 2005 Winter conference in Orlando, FL. Even so, the first “full” YEA Committee meeting with representatives from each ASHRAE Region did not occur until the 2011 Annual conference in Montreal. It took six years to build a full YEA Committee. In 2018 YEA was transitioned to a Grassroots committee.



For details on that transition, please review the details below:

Starting July 1, 2018 YEA will be a grassroots committee within ASHRAE.

This change will ensure YEA has a strong foundation within ASHRAE to continue with the success of the program over the past decade.

The move to Grassroots will put even more focus on developing resources and programs for our chapters.

HOW DOES THIS AFFECT ME?

YEA Members

Over the past decade the YEA Committee has provided Society level programs and resources for YEA Members. These include Leadership Weekends, Leadership U, LeaDRS, Awards, etc. We have reformatted the committee and been given additional resources to keep those programs while providing more resources for chapters and regions.

Chapter and Regional Leadership

1. YEA Chapter Chair (YCC) will be a required position on the CIQ.
2. YCCs will be reimbursed for travel to CRC.
3. YEA Regional Chairs (YRCs) will now be YEA Regional Vice-Chairs (YEA-RVC).
4. YEA-RVCs will be selected through the CRC caucus.
5. YEA-RVCs can be an Associate member. See ROB 2.430 for more information.

Elizabeth Jedrlinic

History Chairman

Elizabeth.jedrlinic@trane.com

Refrigeration

Reprint of Refrigeration article by Michael Garry:

IIAR releases CO₂ safety standard for review

The standard covers all phases of a CO₂ system's lifecycle, from design, installation and start-up to inspection, testing and maintenance; deadline for comments is April 15.



The International Institute of Ammonia Refrigeration (IIAR) released a 128-page safety standard for CO₂ closed-circuit systems on March 1 on its website, and is seeking comments on the standard during an initial public review period that ends on April 15.

Interested parties can access a draft of the standard and submit comments at <https://bit.ly/2tUgU8t>.

The CO₂ standard represents IIAR's latest venture outside of its traditional ammonia focus as it broadens its missions to include all natural refrigerants. It was developed for both commercial and industrial refrigeration applications.

IIAR identified a "need to provide this resource to the industry at this time," said John Collins, industrial sales manager for Zero Zone and chairman of the IIAR's CO₂ Task Group.

He spoke about the standard Monday at a session on commercial standards at the 2019 IIAR Natural Refrigeration Conference & Expo, being held in Phoenix March 4-6.

The standard is "limited to the minimum requirements for providing safe [CO₂] systems, noted Collins, adding that it is not reflective of best practices. It is also intended to serve as a basis for model code compliance.

The standard covers all phases of CO₂ system's lifecycle, from design, installation and start-up to inspection, testing and maintenance. It encompasses the CO₂ portion of a cascade system, systems using CO₂ as a secondary fluid, systems operating part- or full-time in the transcritical cycle, and heat pumps.

The standard addresses areas "where our industry has been lacking in clear and consistent guidance," such as installation and start-up requirements as well as inspection, testing and maintenance, said Collins.

IIAR standards typically go through two or more iterations of public review, said Collins. Following review, the standard is evaluated by a consensus body of stakeholders, voted on by the IIAR Standards Committee and then submitted for approved by the IIAR board and the American National Standards Institute (ANSI), after which it is published.

Publication of the standard "is where things will get interesting," said Collins. "How the standard is received and used in the coming years is to be determined."

Michael Razzano
Refrigeration Chair

BOG Meeting Minutes

BOG Meeting, Long Island Chapter

February 12, 2019 / 5:00 PM / Location: Westbury Manor, Westbury, NY

| Board of Governors | | |
|-------------------------|---------------------|---|
| President | Richard Halley | X |
| President Elect | Frank Paradiso | X |
| Vice President | James Hanna | X |
| Financial Secretary | William Artis | X |
| Treasurer | Mathew Vitrano | |
| Secretary | Murat Bayramoglu | |
| BOG-1 | Michael Nigro | X |
| BOG-2 | Elizabeth Jedrlinic | X |
| BOG-3 | Andrew Blom | |
| BOG-4 | Mathew Catan | X |
| BOG Immediate President | Andrew B. Dubel | X |
| Committee Member | Don Kane | X |
| Committee Member | Brian Simkins | |
| Committee Member | Andy Manos | X |

Roll Call: The above noted individuals were present.

Call to Order - 5:17 PM :

10 people (Richard Halley, Frank Paradiso, James Hanna, W. Bill Artis, Andrew Dubel, Murat Bayramoglu, Elizabeth Jedrlinic)

Secretary (Murat Bayramoglu)

Meetings minutes - Comments/Additions– Oct meeting was approved by all present BOGs.

1. MOTION BY Richard Halley: Past meeting minutes approval
2. Seconded by W. Bill Artis
3. Chair (Richard Halley) stated the motion,
4. The chair put the motion to a vote,
5. All present board members favored the motion,
6. MOTION WAS APPROVED.

President (Richard Haley) Chapter Operations [min-600/Par-1200] Total Points: 895

- PAOE- Keep updated
- Newsletter: Newsletter and meeting notice separate.
1st of the Month: E blast with presenter Meeting reminder, presenter information, and bio
1st Tuesday of Month: The Tuesday before the meeting is when the second blast goes out (or at Bill's discretion).
Day Prior to ASHRAE Meeting: Newsletter goes out the day prior to the meeting.
Committee Articles: The articles are due the first Tuesday of the month.
Templates: two templates – one has a newsletter, one doesn't have a newsletter.
Make sure you copy Bill on all the newsletter emails.
- Motion to approve the Minutes: Frank approved Liz second. Motioned Passed

Programs (Frank Paradiso)

- Feb meeting: (Engineer's Week: BEQ presentation) DL: M. Dennis Knight didn't make it to the meeting due to snow storm. Hooman Daneshmend from NYC Chapter made a presentation about "Hydronic Test and Balance".
- March meeting: ERVs. SCCC student advisor will participate.
- April meeting: DL: James R. Tauby (Seismic Restraint of Mechanical Systems) Un-allocated DL presenter.
- May meeting: Field trip (Covanta field trip) 2. Tuesday (North Shore Towers)??
- June meeting: ?/
- Andy Manos is scheduling Fishing trip June 8th 2019.
- Other Notes:
Andy Emailed the DL's for engineers' week and they responded that they are going to be in February. We need to have the original request in for the allocated DL soon. Patricia Graff is confirmed as a DL. There is a form Frank needs to fill out

BOG Meeting Minutes

Chapter Technology Transfer (Don Kane Chair, Michael Nigro) [min-550/par-1050] Total Points: 575

- Facebook updates
- DL requests 1st DL was confirmed.
- Need to get all the speaker and topics lined up (CEU)
- Unallocated DL was approved (Tauby)

Financial Secretary (Bill Artis)

- Sponsor report: Trane \$5000. \$5000 short of goal.
- Mitsubishi Chapter Sponsorship (\$1000)
- Budget
- Bill is going to handle taxes by Friday
- Chapter financial status
- Monthly meeting sponsor are \$500 for vendors, \$350 for engineering
- Bill and Andy will set up a Dropbox account. Andy has set the Dropbox account.

Treasurer (Mathew Vitrano)

- Treasurer's report has been received and filed.

Government Affairs (Andrew Blom) [min-500/par-650] Total Points (800)

- Activities: We are doing Day in the Hill Again. In September Cuomo introduced HFC initiatives. It should be pretty good this year. Organization will be planned in June.
- USGBC
- Public relations Andy Manos

Historical (Elizabeth Jedrlinic) [min-100/par-300] Total Points (350)

- Articles/interviews of past president's Potential life-members/fellows. An old article will be picked up.
- Thanks to Andy for his answers.
- History of YEA in the spring presentation. In March, History of YEA presentation.

Honors and Awards Chair (Brian Simkins)

- Service awards/Technical Awards
- Candidate Projects
- If there are any projects let Brian know

Research Promotion (Andy Manos) [min-800/par-1050] Total Points (510)

- Vendor Book
- 50/50
- Goal 30 will be reached by the end of December 2018.
- Full circle is due the end of the month. Scholarships have already been taken care of.

Refrigeration (Michael Razzano)

- Updates: Mike is planning one Refrigeration Tour.
- Andrew: motion to make official ASHREA event – Frank seconds, Liz Seconds, everyone approves.

Membership Promotion (Bill Artis) [min-500/par-800] Total Points (200)

- Membership Upgrades: Have not looked at
- Delinquency reporting: Currently have 1
- New members: Started at 289 – right now we are at 291
- Planned events – membership promotion next month SMACNA
- Events budgets – CRC - haven't spent any money yet
- No new member pins

BOG Meeting Minutes

Student Activities (Frank Paradiso Chair, James Hanna) [min-300/par-500] Total Points (100)

- Scholarships
- Student membership update.
- Stony Brook: Trying to get a meeting with two Professors. Possibly inviting to SMACNA Meeting
- Suffolk Community College presentation next year.
- Hofstra
- NYIT: Speaking with Bill about getting a few people into ASHRAE
- Other: There is a master's Energy management course available to take
- Rich and Mike will visit SCCC.

YEA (Elizabeth Jedrlinic)

- 2018 Plan Similar events will be organized
- Budget?
- Racecar Event: February 5th \$60 per person, participants will pay \$40, \$20 is from YEA budget. 7 people participated.
- Goal: Brief presentation with a student activity committee and speak about HVAC careers
- Other: Frank is scheduled for the 2.0 Event. Which is in Liz budget for reimbursement and approved.
- YEA will participate at student activity in Feb.
- Planning a YEA history event in March. Looking for funding opportunities.
- Planning an educational event in May
- End of March, skeet shooting event.

Reception & Attendance (Matt Catan)

- Crushing it: A cool signing sheet was designed. Works well.

Electronic Communications [min-250/par-600](50)

- Temp address Society is taking over website
- New site active! www.ashraeli.com
- Recovery of old address (Ongoing)
- Approved the preliminary budgets at CRC which included the upgrade of the website to a new site.
- Motion: Bill: Motion to release Web page funds; after vote motion approved.

Golf (Peter Gerazounis/Tom Fields)

- May 6th: Cherry Valley Golf Event
MOTION BY Andrew: Keep the Golfing charge same as previous year \$375.
Seconded by Elizabeth Jedrlinic
Chair (Richard Halley) stated the motion,
The chair put the motion to a vote,
All present board members favored the motion,
MOTION WAS APPROVED.

New Business...

- **By Richard Halley:** June meeting will be held in Centerport CC.
- **By Andy Manos:** EJCLI Seminar presentation Feb 13th
- **Frank Paradiso:** YEA leadership event transportation cost 50/50 shar is on RP.

Motion to adjourn by Richard Halley at 5:59 PM
Seconded by Bill Artis

Next BOG Meeting

Location: Westbury Manor

Date: 3/12/2019

Time: 5:00PM

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March 11 – 13, 2019

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Level II – Applications

March 14 – 15, 2019

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- Control/BAS

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- Building Systems: Multi-story Office Building
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Donald Brandt,
CEM, Member
ASHRAE, BEAP

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Julia Keen, Ph.D.,
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ASHRAE Standard 90.1 has been redefining energy savings since 1975. A new version is available now.

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FOR MORE INFORMATION GO TO - <https://www.ashrae.org/education--certification/certification>

ASHRAE Golf Outing - Monday, May 6, 2019



20th Annual LI ASHRAE GOLF OUTING

Monday – May 6, 2019

Place: Cherry Valley Club
Brunch: 11:00 am
Shotgun: 12:30 pm
Reception: 5:30 pm
Dinner: 6:30 pm

This Event fills up fast, to guarantee a spot RSVP Soon.

(2) Foursome Limit Per Company.

Proper golf attire and shoes are required. Locker room and shower privileges are included.

CHECKS MUST BE IN BY APRIL 8, 2019 (No Exceptions)

Fax, Email or Mail entire sheet or cut this half and return

Name: _____ Company: _____
 Address: _____ Phone: _____
 City, State, Zip: _____ Fax: _____

I have read and understand the Cherry Valley Rules and Regulations (Signature): _____

Guest 1: _____ Company: _____
 Guest 2: _____ Company: _____
 Guest 3: _____ Company: _____



Fund raising is primarily through the contributions of our sponsors.

Please consider our sponsorship opportunities listed below.

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Attn: Peter Gerazounis, P.E. LEED AP

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New York, NY 10001

Fax No.: (212) 643-0503

Email: peter.gerazounis@mgdpc.net

Golf & Meals: \$ 375 pp x _____ = \$ _____

Reception & Dinner: \$ 150 pp x _____ = \$ _____

Sponsor Dinner: \$1,000 ☐ Yes = \$ _____

Sponsor Lunch: \$ 500 ☐ Yes = \$ _____

Sponsor Reception: \$ 500 ☐ Yes = \$ _____

Sponsor Prizes: \$ 500 ☐ Yes = \$ _____

Sponsor Beverage Cart: \$ 500 ☐ Yes = \$ _____

Sponsor Hole: \$ 200 ☐ Yes = \$ _____

ASHRAE Golf Outing - Monday, May 6, 2019

Cherry Valley Club

28 Rockaway Avenue at Third Street

Garden City, NY

Telephone: (516)746-4420

Fax: (516)746-4421



Program:

11 a.m. Brunch in the Clubroom & Lounge – including Omelet station, deluxe deli board with rolls, chicken scarpiello, danish, croissants, bagels & cream cheese, sliced nova, fresh fruit and cheeses, Good Humor ice cream cart.

12:30 p.m. Shotgun Start Golf – Playing individual scores. Prizes for long drive, closest to the pins, low gross and callaway. Refreshments at the halfway house will include packaged snacks and whole fresh fruit, hot dogs, beer & soda. A snack cart will also be on the course. Carts, forecaddies, driving range, locker room and showers are all included in the price.

5:30 p.m. Following Golf - Open Bar with hot and cold horsd'ouvres in the Main Lounge. Fresh mozzarella with sundried tomatoes, cajun chicken, spring rolls, baby lamb chops, sesame chicken, turkey canapés, fried oysters, cheeses, fresh fruit, lobster halves, fresh clams & oysters, shrimp and crab claws.

6:30 p.m. Reception Dinner – Awards and raffle in the Main Dining Room. Carving stations of beef tenderloin & turkey breast. Chafing dishes of chicken & salmon featuring the chef's specialty, pasta station with marinara or vodka sauce, and choice of tossed or Caesar salad. Viennese dessert table following the dinner featuring pastries, fruit, cookies, assorted cakes and pies. Full beverage service throughout is included.

Women are also invited to attend and participate. There are locker room facilities available. The Cocktail hour and Dinner will also be available for those who cannot attend during the day for the golf.

Note: We are limited to 128 golfers. Openings will be filled on a first come-first serve basis. Corporate sponsorships will be available and raffle items will be welcome. Proper golf attire is a requirement for the golf course. Soft spikes are required. Please wear a jacket for the dinner.

Directions:

From the North Shore of Long Island: Take the Long Island Expressway to Exit 34 South (New Hyde Park Road Southbound), Grand Central Parkway (Northern State Parkway) to Exit 26 South (New Hyde Park Road Southbound) or Jamaica Avenue (Jericho Turnpike) Eastbound to New Hyde Park Road. Travel Southbound on New Hyde Park Road for approximately 5 to 7 miles to Stewart Avenue (You will cross over a set of railroad tracks). Take Stewart Avenue eastbound for approximately 1-1/2 miles to Cherry Valley Avenue. Travel Southbound on Cherry Valley Avenue for 1/2 mile, Cherry Valley Avenue becomes Rockaway Avenue. Continue on Rockaway Avenue and the entrance to Cherry Valley Club will be on your right.

From Local Points North: Take Old Country Road or Stewart Avenue to Franklin Avenue. Travel Southbound on Franklin Avenue to Fourth Street (just after crossing over railroad tracks). Turn right on Fourth Street and continue until it ends (Rockaway Avenue). Cross over Rockaway Avenue into the Cherry Valley Club's parking lot.

From the South Shore of Long Island: Take the Southern State Parkway to Exit 19 (Peninsula Boulevard-Hempstead/Garden City). Travel Northbound on Peninsula Boulevard for approximately 1/2 mile to President Street. Bear left on President Street (Northbound) for approximately one mile and cross over Hempstead Turnpike. President Street will become Cathedral Avenue. Continue on Cathedral Avenue for one mile to Fourth Street. Make a left on Fourth Street (Westbound) and continue until it ends (Rockaway Avenue). Cross over Rockaway Avenue into the Cherry Valley Club's parking lot.

From Local Points South: Take Hempstead Turnpike to Franklin Avenue. Travel Northbound on Franklin Avenue to Fourth Street. Turn left on Fourth Street and continue until it ends (Rockaway Avenue). Cross over Rockaway Avenue into the Cherry Valley Club's parking lot.

ASHRAE Golf Outing - Monday, May 6, 2019

Cherry Valley Club
Golf Outing Guidelines



To add the enjoyment of your day, we ask that you abide by Cherry Valley Club's basic rules of The Club, dress, golf etiquette & safety, golf carts, and care of the course.

Club Rules

1. **Smoking is not permitted in the Club House.**
2. **Cell Phones are permitted in the parking lot only. Use of Cell Phones beyond the parking lot is strictly prohibited. This includes the Golf Course.**

Dress Code

1. Jeans, designer or otherwise, are not acceptable on club property. This not only includes pants, but skirts, and cut-offs.
2. T-shirts and tank tops are not in keeping with the atmosphere of the club and as such, are not acceptable. The definition of T-shirt includes those with psychedelic coloring or suggestive printing.
3. If the Main Dining room is going to be utilized for any purpose, jackets are required.
4. Short shorts are not permitted on the golf course, practice tee or putting green by either male or female. Bermuda shorts of acceptable length are permitted. Jogging attire and denim pants are not considered proper attire for the golf course.
5. **Soft spikes** are mandatory at all times on our fine golf course. If your shoes need soft spikes, arrive early so we can change them. There is a nominal fee. There is **no** exception to this rule.

Golf Etiquette and Safety

1. Slow play shows lack of consideration for the players in your group and, more important, for the players behind you. Golf is made much more enjoyable if all players adhere to the following points in the conduct of play:
 - Minimize the time spent looking for balls by watching the flight of balls hit by everyone in your group. If a ball appears to be lost or out of bounds, hit a provisional ball before leaving the tee.
 - Signal the players behind you to play through if it becomes apparent that a ball will not easily be found and you are holding up play.
 - Don't rush addressing and striking the ball but move briskly between shots.
 - If your ball is some distance from the golf cart and the exact club selection is in doubt, take several clubs with you when you leave the cart to walk to the ball.
 - When play reaches the area of the green, park the golf cart(s) behind the green or adjacent to the next tee. Walk briskly off the rear or side of the green after putting out. Mark your score cards after your group is off the green.
 - Once a score of double par has been posted, pick up and move on to the next hole.
2. No player should play until the players in front are out of range.
3. If your ball appears headed for a player or group of players immediately shout "fore" in a loud clear voice.
4. No one should move, talk or stand close to or directly behind the ball or the hole when a player is addressing the ball or making a stroke.

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