



# the Champ

## Monthly Newsletter of the CHAMPLAIN VALLEY CHAPTER OF ASHRAE

Serving Vermont Since 1969

### President's Message



I would like to thank all the members who attended October's meeting with our thanks to Randy Mead of Control Technologies and John Butterfield from Hallam ICS for two informative presentations. Randy's presentation on Networked Lighting Controls identifying the benefits as well as showing a real time live demonstration

of utilizing an addressable lighting control being used in their office and he shared with us the cost savings they are experiencing. John's presentation on Utilizing a BMS in the Building Commissioning Process was very interesting as he discussed several case studies from several commissioning projects which Hallam ICS was involved in and how the power of the BMS was utilized to resolve operational and performance issues discovered as the building was commissioned or during initial months of occupancy.

Spencer Morasch, the current Director and Regional Chair for Region 1 of ASHRAE attended our October meeting and gave a short overview of ASHRAE regional and national events and activities. He encouraged members to become involved in local chapter operations or sign -up for any number of technical committees of ASHRAE. Spencer has reported that he fully enjoyed his visit to Vermont and commented that our presenters for the evening were excellent and engaged the audience and is impressed by the percentage of our membership turnout for our monthly meetings. His only regret is that he missed peak fall foliage season.

Regarding the website we are in the process of updating the site architecture, a new design theme and layout, modifying web pages and providing new back end enhancements. Please bear with us while the improvements are under construction.

I hope to see you all at our next meeting on November 2, 2011 beginning at 5:30 PM and will take place at the Hampton Inn in Colchester. November's program will be a joint meeting with RSES and focus on refrigeration. Steve Friedman who is the Region 1 refrigeration chair will present an overview of refrigerants and relating refrigeration to ASHRAE standards and LEED requirements. Mark

Cambria will cover the systems and design strategies employed to construct a LEED Gold Supermarket.

I remind all attendees to RSVP Ray Hickey to coordinate head counts with the Hampton Inn to make sure there is enough food for everyone.

Sincerely,  
Mike Cook  
Chapter President

Join Us For Our Next Meeting  
November 2, 2011

**BOG meeting 4:00 PM @Hampton**  
**Tech session @ 6:00 PM**  
 Direct Expansion Refrigeration  
**Dinner @ 7 PM**  
**Main Presentation @ 8 PM**  
 Engineering Challenges and Sustainable  
 Solutions in Supermarkets...

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# 2011-2012 ASHRAE CVC MEETING CALENDAR

Nov. 2011

Vol. 26 No. 3

September 7	October 5	November 2	December 7	January 4
<p><i>Location: Hampton Inn</i></p> <p><b>4:00 pm:</b> BOG Meeting @ VHV Offices</p> <p><b>5:30pm:</b> Tour FAHC Boiler Plant</p> <p><b>7:00pm:</b> Dinner @ Hampton Inn</p> <p><b>8:00pm:</b> Presentation David Golen FAHC Boiler Room Plant Upgrades</p>	<p><i>Location: Hampton Inn</i></p> <p><b>4:00pm:</b> BOG Meeting @ Hampton Inn</p> <p><b>6:00pm:</b> Tech Session BMS and Lighting Controls Randy Mead CTI, C.E.M., CMVP, LEED AP</p> <p><b>7:00pm:</b> Dinner @ Hampton Inn</p> <p><b>8:00pm:</b> Presentation Utilizing a BMS in the Building Commissioning Process / John R. Butterfield, P.E. Hallam Associates</p>	<p><i>Location: Hampton Inn</i></p> <p><b>4:00pm:</b> BOG Meeting @ Hampton Inn</p> <p>Membership Promotion Night and Joint Meeting with RSES</p> <p><b>6:00pm:</b> Tech Session Overview on all Refrigerants Steve Friedman, PE, HFPD, LEED AP BD+C - Region 1 Refrigeration Chair</p> <p><b>7:00pm:</b> Dinner @ Hampton Inn</p> <p><b>8:00pm:</b> Presentation Milton Garland Award Winning Project Overview Featuring a CO2 Refrigeration System / Mark Cambria, P.E., LEED AP BD+C, CCP</p>	<p><i>Location: TBD</i></p> <p><b>TBD:</b> BOG Meeting</p> <p>Proposed Full Day Seminar with Efficiency Vt/VGBN</p> <p>Seminar on Energy Modeling</p>	<p><i>Location: Hampton Inn</i></p> <p><b>TBD:</b> BOG Meeting</p> <p><b>6:00pm:</b> Joint Meeting with AIA on non-HVAC topic</p>
February 8	March 2	April 6	May 4	June 1
<p><i>Location: TBD</i></p> <p><b>TBD:</b> BOG Meeting</p> <p>Combined with Efficiency Vt. Expo</p> <p>Proposed DL speaker on 90.1 or other topic</p>	<p><i>Location: Hampton Inn</i></p> <p><b>TBD:</b> BOG Meeting</p> <p><b>6:00pm:</b> Tech Session DL Daniel Nall ASHRAE Building Energy Quotient (bEQ)</p> <p><b>7:00pm:</b> Dinner @ Hampton Inn</p> <p>Presentation DL Daniel Nall</p> <p>50% Small and Medium Office AEDG</p>	<p><i>Location: TBD</i></p> <p><b>TBD:</b> BOG Meeting</p> <p>VTC ASHRAE Club as Host</p> <p>Program TBD</p>	<p><i>Location: TBD</i></p> <p><b>TBD:</b> BOG Meeting</p> <p>Membership Promotion Night</p> <p>Facility Tour – Proposed Magic Hat Digester</p> <p>Dinner – TBD</p>	<p><i>Location: TBD</i></p> <p><b>TBD:</b> BOG Meeting</p> <p>Possible Green Technology Expo/product Demonstration?</p> <p>Details still in the planning phase</p> <p>Annual year end BBQ</p>



turn to the experts™



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## TECHNOLOGY TRANSFER

Thank you to everyone that came out for our October meeting and presentations on “Networked Lighting Controls” and “Use of a BMS in the building commissioning process”. A big thank you to our presenters Randy Mead of Control Technologies and John Butterfield of Hallam-ICS. Both presentations were very informative and included a live demonstration via a remote connection of Control Tech’s networked lighting system. Randy also provided case study results of the installed system. John presented on lessons learned from various commissioning projects and highlighted how powerful and useful a Building Management System can be in commissioning but also the pitfalls and cautioned the limitations.

A special thanks to Spencer Morasch, the current Director and Regional Chair for Region 1 of ASHRAE. He attended the October CVC meeting and delivered a short presentation of what’s happening at ASHRAE at the regional and society levels. Spencer was very impressed with the

CVC operation and gave big praises all around. He also attended the BOG meeting and offered tips and recommendations to all committee chairs and chapter officers. Spencer visited potential CRC 2013 (Burlington) venues with Tom Zoller and made a special trip to Vermont Heating and Ventilating Co and meet with president Dave Brown to personal thank VHV for their continued support of ASHRAE. He also thanked ALL companies and individuals that support and make our local chapter thrive.

Spencer helped Mike Cook hand out the (14) 2011 CRC awards that CVC received including a prestigious Chapter Service Award to Thomas W. Zoller 2010-2011 ASHRAE Region 1. Congratulations to Tom and all recipients.

November’s meeting is CVC Refrigeration Night! Yes the sometimes overlooked “R” in ASHRAE. You cannot miss this whopper of a meeting. The meeting is a Joint effort with the VT chapter of Refrigeration Service Engineers Society (RSES).



It's also Membership Promotion Night (=free beer!!)

We have another special guest this month Steven Friedman, PE, HFDP, LEED AP BD+C. Steven is the ASHRAE Region 1 Refrigeration Chair. Steven will be making his first every visit to our chapter and will be presenting the technical session on refrigerants.

#### Technical Session

##### “Direct Expansion Refrigeration”

Steven Friedman , PE, HFDP, LEED AP BD+C - AKF

#### Technical Presentation Overview

This presentation will cover basics about direct expansion refrigeration, alternative ozone friendly refrigerants to direct expansion, refrigeration as it relates to ASHRAE Standard 90.1 Energy Efficiency, 189.1 Green Buildings, and the LEED Sustainable design and construction component. The presentation will also include a pictorial highlight and overview of the Price Chopper supermarket, which uses alternative refrigerants and is also a LEED Gold accredited facility.

#### Bio

Steve brings over 22 years of engineering and construction experience in the highly specialized healthcare facilities industry. Mr. Friedman was the first New York State engineer certified as a Healthcare Facility Design Professional, recognized by the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) for his mastery of the technical knowledge covering design and operation of healthcare facilities.

Mr. Friedman received a Bachelor's degree in Mechanical Engineering in 1988 from SUNY College of Technology in Farmingdale, NY. He is licensed in New Hampshire and is a Certified Healthcare Facility Design Professional and a LEED 2.2 Accredited Professional.

Steve is a member of the United States Green

Building Council (USGBC), American Society of Healthcare Engineers (ASHE) and ASHRAE. He has served on the Board of Governors for the Long Island Chapter of ASHRAE since 2000, finishing his active duty as President in 2008-2009. Opting to further his leadership role, he was appointed to ASHRAE's Regional level as Refrigeration Chair and Society level Refrigeration Committee where he will be involved in new refrigeration technologies, and will be a contributing member for edification of the ASHRAE Refrigeration Handbook for 2014, aimed at setting standards and promoting ozone-friendly refrigerants for responsible project sustainability and refrigeration equipment efficiency.

#### Main Presentation

“Engineering Challenges and Sustainable Solutions in Supermarkets, a Case Study of an ASHRAE Award Winning Supermarket”

Mark Cambria, P.E., LEED AP BD+C, CCP  
M/E Engineering P.C.

#### Presentation Overview

This presentation will cover the systems and design strategies employed to construct a LEED Gold Supermarket. Notably, the owner and design team of the case study project were recipients of the highly prestigious Milton W. Garland Refrigeration Award for Project Excellence, as the central CO2 system utilized for the refrigerated goods was the first of its kind!

#### Bio

Mark graduated from Stevens Institute of Technology with a Bachelor of Engineering degree in mechanical engineering, and started in the engineering consulting industry with a Manhattan firm in 1998. In 2005 he moved to upstate NY where he continued in the consulting engineering field, shifting his career focus on building commissioning and controls design. In 2010, Mark served as the ASHRAE Northeast Chapter president, and with well over 1 million square feet of commissioning experience, he recently obtained the Certified Commissioning Professional credential from the Building

Commissioning Association. Mark is a LEED AP with specialty in Building Design and Construction, and manages MEP design and commissioning projects for higher education and industrial clients, and for architects throughout the Northeast.

Mark is currently a Senior Engineer and Project Manager for M/E Engineering's Schenectady, NY office, and he is a licensed professional engineer in NY, MA, NH, VT, CT. He currently lives in Halfmoon, NY with his wife and two boys.

### Code Updates

The Vermont Department of Public Service has held two workshops, the first in Montpelier on Oct 20th and 2nd in Rutland on Oct 28th. Participants held discussion on the future of Vermont RBES and CBES Energy Code compliance. The Topics of these workshops included:

- Results of the recent energy code survey and research into code compliance mechanisms
- Options for achieving 90% energy code compliance
- Who should be involved with supporting energy code compliance
- Appropriate compliance and enforcement mechanisms for Vermont

If you attended either of these workshops we'd love to hear from you. Please contact me at 802-655-8805 ext 152 or [tomd@vhv.com](mailto:tomd@vhv.com).

The final workshop is scheduled for 12/7/11 to present the code compliance plan. Any questions or to RSVP if you plan to attend to the final workshop please contact:

Chris Kramer, Energy Futures Group  
[ckramer@energyfuturesgroup.com](mailto:ckramer@energyfuturesgroup.com) or call 802-482-5001 x4

Hope to see everyone at the November meeting!

Tom Dacres  
Tom Dacres

## STUDENT ACTIVITIES

VTC Chapter

Committee Chair: Shawn LaBelle

Student Chapter Advisor: Chris Reilly

It looks like the VTC Student ASHRAE Chapter is off to a great start this year. This year's student chapter officers are the following:

Erin Fajans - President

Kristen Gulrajani - Vice President

Stephen Piro - Treasurer/Secretary

We will be fortunate enough to have a few students attending the 2012 ASHRAE Winter Conference in Chicago, IL this coming year.

The students are looking for a few tour ideas for this year's student chapter. If you know of any tours that would be of interest please contact Chris Reilly or myself.

Thanks!

Shawn LaBelle

## IN MEMORY OF BELLINGER

Immediate past ASHRAE President Lynn G. Bellenger, who served as the first woman president in the Society's



116 year history, passed away Wednesday, Oct. 19. She was president for the 2010-11 Society year, with her term ending in June 2011.

Bellenger, P.E., Fellow ASHRAE, was a recognized expert in energy management, with a strong focus on the need for energy modeling to help create and refine more efficient buildings. She was a partner, Pathfinder Engineers & Architects, Rochester, N.Y.

"We at ASHRAE are greatly saddened by the death of our former president and our friend," Ron Jarnagin, ASHRAE president, said. "Her lifelong passion for engineering excellence resonated within our membership and our industry, inspiring us through her belief that engineers will

lead an energy revolution with innovation. Through her service, she showed that there is a path available to all who wish to extend the influence of engineering principles to better serve the world we live in.”

As ASHRAE president, Bellenger focused on Modeling a Sustainable World, sharing her thoughts about the role of modeling tools and how all involved in the built environment industry must come together to take advantage of “the rich opportunities for optimizing building performance through a collaborative approach from the beginning.”

In an interview last year, Bellenger talked about her involvement in energy efficiency and how much has been put in recent years on the need to save energy.

“One of the cool things about the sustainability movement is that it has ignited a passion in people that is changing the world. That passion has brought a sense of energy and excitement to the industry and attracted people who are committed to designing and operating sustainable buildings. I don’t see that changing in the future,” she said.

Bellenger is a recipient of an ASHRAE Exceptional Service Award, a Distinguished Service Award, two first-place ASHRAE Technology Awards and the Lincoln Bouillon Membership Award.

She received a Bachelor of Science in mathematics from Principia College and a Master of Science in environmental science from Rutgers University.

Funeral arrangements are private.

If you would like to send your condolences please respond to this email. Messages will be assembled into a remembrance for the Bellenger family.

**“LEADERSHIP QUOTE of the MONTH”**

**“Men make history and not the other way around. In periods where there is no leadership, society stands still. Progress occurs when courageous, skillful leaders seize the opportunity to change things for the better.”**

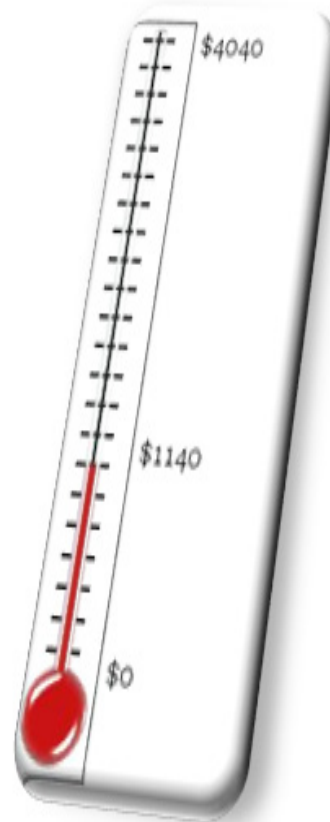
**Harry S. Truman**

**RESEARCH PROMOTION**

We are off to a great start and have made a lot of progress towards meeting our fundraising goal for this 2011-12 campaign. We have already met one of our goals of raising 30% of our total by the end of the year which makes our chapter eligible for PAOE points. We are also very close to completing our chapter Full Circle (\$100 donation from all chapter officers) which will also award us PAOE points.

This month’s meeting is Membership Promotion

night but I would like to take a moment to recognize and hand out certificates of appreciation to all the donors that made last year such a successful one. So if you are one of those people or organizations that I listed in last month’s letter and you haven’t been to one of our meetings in a while then this would be a great one to attend.



2011-2012 Progress!!!

meetings that we have coming up. Please feel free to contact me for details on how to sign up and what the rules are.

I am still have one open vender table for November’s meeting and am looking to fill the tables at the other

Thank you  
Rob Ward  
Rob Ward  
RP Chair



## MEMBERSHIP PROMOTION

MEMBERSHIP PROMOTION NIGHT  
NOVEMBER 2ND !

Hello Champlain Valley Chapter, I am excited to announce that our upcoming November meeting is our first membership promotion night of this ASHRAE year, and we are giving away some great FREE STUFF!

We are holding a joint meeting with RSES this month, and every single person in attendance will receive (2) two free vouchers redeemable for one free adult beverage each!

At the conclusion of the meal, and just before the second presentation we will be awarding a DOOR PRIZE in the form of a \$100 Gift Certificate to a local restaurant. Here is how to become eligible for the door prize drawing. Any ASHRAE member who brings a non ASHRAE member to the meeting this month will be eligible for the door prize. All non ASHRAE members in attendance will be eligible for the door prize drawing.

There will be a 50/50 raffle to benefit research and promotion. I am looking forward to seeing a mix of new, and familiar faces.

I would like to welcome four new chapter members who have recently joined. Thank you for your support, Seth Yellin, Justin Webb, Michael VanHorn, and Charles Veronneau.

I would like to remind anyone who has not renewed their membership to please do so. We have 8 members now who are overdue, and in the next few weeks the membership committee will send out friendly reminders. When possible it is preferred that the online renewal is used. If you have any questions at all please contact me.

If you are interested in sitting on the membership committee please contact me at [nathanm@vhv.com](mailto:nathanm@vhv.com)

Reminder: It is important to let Ray Hickey

([rhickey@advancedcomfortsys.com](mailto:rhickey@advancedcomfortsys.com)) know 3-4 days before the monthly meeting that you are planning on attending. Thank you.  
you.

Nathan Mascolino  
Nathan Mascolino

## TREASURE'S REPORT

As of today, October 16, 2011, all bills are paid and our TD Bank checking account balance is \$13,682 - down from last month by \$373. The fact that a few folks stated they would attend the October Hampton meeting, then failed to show up or pay - resulted in us being stuck with the uneaten meal costs. Here's the implied caveat: "If you inform us you plan on coming to a meeting, you have de facto assumed the financial responsibility of paying - regardless of last minute conflicts. Just in case, we have until Monday morning to tweak the head count for a Wednesday meeting.

Yes, there is some "fudge" in the head count we provide the meeting (Hampton) place. One or two stragglers one way or the other is already built into the reservation system, but three or more no-shows - or "extras" - stretches the meal count beyond the "fudge." To avoid this conundrum, just remember to email Ray Hickey your intentions, know that you can change them up until Monday morning and if last minute events force a scrub, you are still obligated to pay for the meal.

Ken Secor, Treasurer  
Ken Secor, Treasurer

## BOG MEETING MINUTES

### October 5, 2011 BOG Meeting Minutes

Date: 10/05/2011

Location: Hampton Inn

Time Called to Order: 4:10pm

Called to Order By: Mike Cook, President

Minutes Recorded By: Robert J. Favali, Secretary

### ATTENDANTS

Shawn LaBelle	Vermont Mechanical
Mike Cook	ARC Mechanical
Tom Dacres	VHV
Nathan Mascolino	VHV
Dick Wilcox	VHV
Rob Ward	VHV
Robert J. Favali	DuBois & King, Inc
Peter Bailey	Dodge Engineering Inc
Tom Zoller	Trane Company
Spencer Morasch	ASHRAE Region 1 DRC
Gus Mastro	UVM (retired)

### LAST MEETING MINUTES

A motion was made by Nathan Mascolino to approve the September 2011 meeting minutes. It was seconded by Dick Wilcox and the motion was carried.

### OFFICER REPORTS

#### A.) President: Michael R. Cook

Mike gave a CVC welcome to Spencer Morasch. Spencer is the Director and Region I Chair. Spencer gave the Board a brief introduction and description of his duties within ASHRAE. One item that he emphasized was the importance of working to eliminate committees of one member and for the Chapter to work to improve membership involvement.

Mike discussed ideas to promote Chapter submissions for Engineer of the Year (EOY) and Young Engineer of the Year (YEOY). He noted that he will prepare an article for the Newsletter.

The Board in general discussed the current status of the Chapter's website including necessary updates, criticisms, and comments to improve its look and usefulness. The new website address ([www.ashraevt.org](http://www.ashraevt.org)) will be promoted to the membership in an **upcoming** meeting once it is approved for release.

Mike discussed the status of the Full Circle and the Nov 1 deadline. The current status of Chapter officers and chairs that have donated \$100.00 for Research Promotion are: Mike Cook, Nathan Mascolino, Rob Favali, Ken Secor, Shawn LaBelle, Gretchen Langfeldt, Rachael Mascolino, and Rob Ward.

Mike discussed ASHRAE marketing material for the newsletter and noted that this material needs to be sent from ASHRAE to Cara for insertion into newsletter.

Mike reminded that for the November meeting, we need to start thinking about members to form a nominating committee for next year's officers.

Mike discussed the status of Management by Objective (MBO) by the Regional chairs. It was noted that the following individuals completed the requirement: Mike Cook, Nathan Mascolino, Tom Dacres, Rob Ward, and Shawn Labelle.

#### B.) President Elect- Tom Dacres – CTTC Chair

Tom discussed updates to meeting topics for the upcoming months.

November – RCES Joint Meeting and Membership Promotion

December – E-Quest Training (pending)

January – Site visit to National Life Building; This may be a joint meeting with AIA (TBD)

February – TBD

March – No change

April – VTC Meeting (topic is TBD)

May – No change

June – Possible Vendor picnic

Tom noted that he and Rob Ward are working on vendor tables for monthly meetings. At this point, any vendors interested in having a table at our meetings are to contact Rob Ward for information.

#### C.) Vice President – Nathan Mascolino - Membership Chair

Nathan discussed that the November meeting will be a Membership promotion night. He discussed the planned 50/50 Raffle and Free Drink Tickets for the meeting. Nathan made a motion that the Chapter to provide (2) free drink tickets at the November Membership Meeting. It was seconded by Pete Bailey and carried.

He then made a motion that if a member brings a non-member, each name is entered into a raffle for a \$100.00 gift certificate to dinner at a local restaurant. It was seconded by Rob Favali and carried.



## General Meeting Minutes

October 5, 2011

Date: 10/05/2011

Location: Hampton Inn

Minutes Recorded By: Robert J. Favali, Secretary

### ATTENDANTS (36)

Ray Hickey	Advanced Comfort Systems
Harris Unger	Advanced Comfort Systems
Mike Cook	ARC Mechanical
Brice Kosnik	Basix Automation Integrators
John Lincoln	Burlington Electric
Randy Mead	Control Technologies
Nick Rock	Controls Technologies
Chris Vintinner	Controls Technology
Pete Bailey	Dodge Engineering
Rob Favali	DuBois & King Inc
Mike Spasyk	DuBois & King Inc
Matt Dooley	Efficiency Vermont
Jay Pilliod	Efficiency Vermont
Mary Jane Poytner	Efficiency Vermont
Sandy LaFlamme	Efficiency Vermont
Joe Coutermarsh	JFPCS, PC
Scott Alexander	LN Consulting
Robert Trahan	Mechanical Innovations
Steve Kreigh	Mylan Technologies
Clark Sweeney	Sweeney Refrigeration & HVAC Service
Gretchen Langfeldt	Switchback Brewing Co.
Bill Moore	T-Corp Inc.
Jason Hudspath	Thermal Environmental Sales
Tom Zoller	Trane
Gus Mastro	UVM
Tom Dacres	Vermont Heating & Ventilating Inc
Nathan Mascolino	Vermont Heating & Ventilating Inc
Dick Wilcox	Vermont Heating & Ventilating Inc
Rob Ward	Vermont Heating & Ventilating Inc
Shawn LaBelle	Vermont Mechanical Inc.
Jim Lavallee	Vermont Mechanical Inc.
Jim Cressey	Vermont Mechanical Inc.

Nathan discussed the status of the Chapter's membership indicating that we have (3) new and (9) delinquent members. No action; information only. Nathan gave a report on his Centralized Training. No action; information only

#### D.) Treasurer – Ken Secor

There was nothing new to report. Mike Cook reminded us that our Tax Report is due November 15th

#### E.) Chapter Secretary – Rob Favali

Nothing new to report

#### F.) History – Gretchen Langfeldt

Nothing new to report

#### G.) Refrigeration – Peter Bailey

Nothing new to report

#### H.) Student Activities – Shawn LaBelle

Shawn reported that the VTC Student Officers have been voted in and are meeting on a regular basis. He also said that the VTC Chapter is going to the ASHRAE Winter Conference in Chicago. The Board had a discussion about ways to support this trip by the Chapter but no decisions were made at this time.

#### I.) General Items

Rob Ward reminded us that all donations to Research Promotion need to be copied to him for our reporting requirements. He said that next month's meeting will include a Donor's Recognition Night. He also gave a brief report on his Centralized Training.

Tom Zoller gave us an update on his CRC-2013 activities. Earlier in the day, Tom gave Spencer a tour earlier in the day to discuss sites and issues for CRC including a visit to ECHO Science building and the Hilton-Burlington. He also noted that all CRC decisions need to be in place before April 2013 because hotel pricing needs to be secured by April 2013.

### MEETING ADJOURNED

A motion to adjourn the meeting was made by Tom Dacres and seconded by Shawn Labelle. It was carried and the meeting adjourned @ 5:30 PM

*These minutes are the writers understanding of the discussions involved. If there are any exceptions taken, or omissions, please notify the writer immediately.*

Eric Lafayette Vermont Mechanical Inc.  
Glenn Erb  
John Butterfield  
Spencer Morasch Guest

## TECH SESSION

This month's tech session at the Hampton Inn was a presentation by Randy Mead, Control Technologies Inc, on networked lighting strategies and controls. Randy explained the latest advancements in lighting controls that allow the user to schedule and manage a facility's lighting systems from a computer or over the internet. He demonstrated the system's ability by logging into his office lighting controls and manipulating the lights and obtaining usage information from our meeting room.

## GENERAL MEETING AND MAIN PRESENTATION

Our general meeting and dinner was held at the Hampton Inn. During the meeting, Spencer Morasch, ASHRAE Region I DRC gave a brief PowerPoint presentation on recent activities within ASHRAE at both the regional and national levels.

Also during the meeting, the 2011 CRC awards that were received at the 2011-2012 CRC in New York City were presented to the recipients. The list of awards and recipients are listed in last month's newsletter.

The main presentation was by John R. Butterfield, PE, Hallam/ICS on utilizing a building management system in the commissioning process. John demonstrated with a slide presentation how effectively he has used a BMS system in his building commissioning and system troubleshooting projects.

*(These minutes are the writers understanding of the discussions involved. If there are any exceptions taken, or omissions, please notify the writer immediately.)*

## EARNING TOP MARKS IN ENERGY EFFICIENCY

For Release: Oct. 13, 2011  
Contact: Amanda Dean  
Public Relations  
678-539-1216  
adean@ashrae.org

### New Guidance Released to Help Schools Earn Top Marks in Energy Efficiency

ATLANTA—Inefficient lighting, uncontrolled plug loads and poorly insulated roofs are just few of the factors that can contribute to a failing grade in energy consumption for K-12 school buildings.

Fortunately, guidance is available to help design teams constructing K-12 school buildings cut annual energy use by 50 percent or more using off-the-shelf technology.

To help ensure schools receive an A+ in energy efficiency; owners, engineers, designers, architects and others on the building team are encouraged to download the free Advanced Energy Design Guide for K-12 School Buildings: Achieving 50% Energy Savings Toward a Net Zero Energy Building. The guide is the second to be released in a series which provides recommendations to achieve 50 percent energy savings when compared with the minimum code requirements of ANSI/ASHRAE/IESNA Standard 90.1-2004, Energy Standard for Buildings Except Low-Rise Residential Buildings.

Advanced Energy Design Guides, or AEDGs, allow owners, contractors, consulting engineers, architects and designers to easily achieve advanced levels of energy savings without detailed energy modeling or analyses. Written in partnership with ASHRAE, the American Institute of Architects, the Illuminating Engineering Society of North America, the U.S. Green Building Council and the U.S. Department of Energy, the guides are available for free in electronic form at [www.ashrae.org/freeaedg](http://www.ashrae.org/freeaedg).

“Significant research demonstrates that the quality

of the physical environment affects student performance,” Shanti Pless, chair of the steering committee, said. “An environment that includes appropriate lighting, sound, temperature, humidity, cleanliness, color and air quality can help students learn better. In many cases, improving these attributes can also reduce energy use.”

The new guide features easy-to-follow recommendations for various climate zones and how to implement tips via a series of real-life school construction case studies. Also included is information on integrated design, including best practices, as a necessary component in achieving 50% energy, and the inclusion of a performance path; specifically, offering guidance for early stage energy modeling and annual energy use targets to help with goal setting

Additional design tips include:

- High performance building envelope that is better than Standard 90.1-2004.
- Different ways to daylight 100 percent of the floor area of classrooms, resource rooms, cafeterias, gymnasiums and multipurpose rooms for two thirds of school hours.
- Methods to achieve space-by-space interior lighting power densities that are, on average, 40 percent better than Standard 90.1-2004.
- Ways to reduced exterior (façade, walkway, parking lot and drive) lighting energy consumption.
- Recommendations for computers, vending machines, kitchen cooking equipment, walk-in refrigeration equipment, kitchen exhaust hoods and service water heating.
- Three different HVAC system types that achieve significant energy savings over a typical system.
- Recommendations for commissioning and measurement and verification to ensure that energy savings potentials are realized.

The AEDG also addresses the notion that energy efficient buildings are more expensive.

“Owners should not expect energy-efficient schools to cost more; they can cost more, but they shouldn’t have to. The tips, guidelines and tables included in

the newest AEDG for K-12 schools can set building owners on their way to more energy efficient, productive schools in a cost efficient manner,” Pless said.

The 50% Advanced Energy Design Guide series follows an earlier six-book series that provided guidance to achieve 30 percent savings. The ultimate goal is to provide guidance to achieve net zero energy buildings; that is, buildings that, on an annual basis, produce more energy than they consume.

ASHRAE, AIA, IES, DOE and USGBC are currently developing the third guide in the 50 percent series, which will focus on medium/big box retail. Publication is targeted for winter of 2012, followed by large hospitals in the spring of that year.

Advanced Energy Design Guide for K-12 School Buildings: Achieving 50% Energy Savings Toward a Net Zero Energy Building is available as a free download at [www.ashrae.org/freeaedg](http://www.ashrae.org/freeaedg).

## ASHRAE, AHR EXPO RETURN TO CHICAGO

For Release: Sept. 20, 2011  
 Contact: Amanda Dean  
 Public Relations  
 678-539-1216  
[adean@ashrae.org](mailto:adean@ashrae.org)

ASHRAE, AHR Expo Return to Chicago for 2012 Winter Conference

ATLANTA—Registration is open for ASHRAE’s 2012 Winter Conference in Chicago where attendees have the chance to discuss and examine the latest topics in the building industry, such as high performing buildings and integrated design, as well as participate in technical tours; attend ASHRAE Learning Institute courses; earn professional credits; and obtain ASHRAE certifications.

The 2012 Winter Conference takes place Jan. 21-25 at the Palmer House Hilton. The International Air-



Conditioning, Heating, Refrigerating Expo®, held in conjunction with the Winter Conference, will run Jan. 23-25. The Expo, [www.ahrexpo.com](http://www.ahrexpo.com), is held at the McCormick Place.

In keeping with ASHRAE's goal of continuing education the Conference offers over 200 Professional Development Hours, as well as Continuing Education Units, which can be applied toward a Professional Engineering license.

The technical program features more than 90 programs and 300 speakers addressing energy modeling applications; integrated design; healthcare, laboratories and data center applications, among others; operations and maintenance; high performance buildings; as well as refrigeration and systems and equipment sessions. Additionally, there is a new "mini-conference" on Installation, Operation & Maintenance of HVAC Systems built within the Technical Program. The O&M mini-conference is scheduled on Jan. 22-23. The full Technical Program, which will be announced later this month, offers the opportunity to earn a year's worth of PDHs, NY PDHs, AIA LUs and LEED AP credits.

The Chicago Virtual Conference is included with a paid Conference registration—comp and single day registration excluded—and includes on-demand access to all speakers' audio presentations synced to their presentations. Attendees and speakers can post comments on the presentations for a two-week period. Those not attending the Chicago Winter Conference in person may register for the Virtual Conference only. Register at [www.ashrae.org/chicagovirtual](http://www.ashrae.org/chicagovirtual).

Five Professional Development Seminars and 15 Short Courses are offered to help industry professionals stay current on HVAC technology, including how to apply the newest ASHRAE standards. The ASHRAE Learning Institute (ALI) is offering a new half-day short course on the basics of combined heating and power systems, as well as updates to the full-day professional development seminars focusing on Standards 62.1, Ventilation for Acceptable Indoor Air Quality, and 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings. ALI courses are approved for renewal of professional engineer and professional architect licenses,

as well as for industry certification programs.

Additionally, ASHRAE offers a special administration of all six certification examinations on Jan. 25: Building Energy Assessment Professional (BEAP), Building Energy Modeling Professional (BEMP), Commissioning Process Management Professional (CPMP), High-Performance Building Design Professional (HBDP), Healthcare Facility Design Professional (HFDP) and Operations & Performance Management Professional (OPMP). ASHRAE's certification program recognizes industry professionals who have mastered knowledge and skills reflecting best practices in certain aspects of building design and operations. More information on each certification can be found at [www.ashrae.org/chicagoexams](http://www.ashrae.org/chicagoexams).

ASHRAE Conference technical tours give you a first-hand look at technology developed by members to further the industry. Tours include the North Central College Residential and Recreation Center, Loyola University Information Commons, the University of Chicago Mansueto Library and Rush University Medical Center Central Energy Plant.

The Winter Conference also includes a program designed for students of the Society. Highlights of the program, held on Sunday, Jan. 22, include speakers, a professional development session and presentations by the recipients of the Student Design Competition and a technical tour of the University of Chicago library.

To register and for complete Conference information, visit [www.ashrae.org/chicago](http://www.ashrae.org/chicago).

## Hybrid Ground-Source Heat Pump Technology Reduces Up-Front Costs

*The DOE highlighted a recent report demonstrating that hybrid systems dramatically decrease up-front costs while delivering financial and environmental benefits nearly equivalent to standard ground-source heat pumps.*

Source: October 18, 2011- ED+C Magazine

The U.S. Department of Energy (DOE) highlighted

a recent report — Hybrid Ground-Source Heat Pump Installations: Experiences, Improvements and Tools— demonstrating hybrid ground-source heat pumps (GSHP) as a viable solution to reduce energy use in commercial buildings. The report finds that new hybrid systems dramatically decrease up-front costs while delivering financial and environmental benefits nearly equivalent to standard ground-source heat pumps. With its lower price, hybrid GSHP technology could be deployed widely, saving energy and money in new and existing commercial, industrial, and institutional buildings, according to the report.

DOE, Alliant Energy and Madison Gas & Electric co-funded the study, which analyzed operating data from three working hybrid GSHP systems. The Energy Center of Wisconsin, with assistance from the University of Wisconsin Solar Energy Laboratory, observed two hybrid systems in Las Vegas, Nevada and one in Madison, Wisconsin for one year to examine hybrid GSHP in climates with different heating and cooling needs. In all three cases the hybrid design was effective in comparison to other HVAC system designs. The study validated hybrid systems as a cost-effective alternative to traditional ground-source heat pump systems.

All GSHP systems have benefits such as saving money and reducing fossil fuel usage. In standard GSHP systems, also known as geothermal heat pumps, a large underground heat exchanger made from a loop of plastic pipes is buried or drilled into the ground. A fluid circulates through the pipes, to move heat between the in-ground heat exchanger and a heat pump, which regulates building temperature. The upfront installation cost for this underground loop is significant, up to half the cost of the entire system, but necessary to achieve the desired temperature levels.

With the hybrid system, the size of the underground loop is drastically smaller, making drilling less expensive and less invasive. To compensate for the smaller loop system, conventional technology (such as cooling towers or boilers) is used to meet a portion of the peak heating or cooling needs. Balancing the load of the GSHP with traditional HVAC equipment lowers up-front costs, while still providing the energy efficiency of

a GSHP. This study showed that due to typical building load fluctuations, the standard equipment runs so infrequently it doesn't substantially reduce the energy savings.

With DOE support, the Energy Center developed documents and tools for HVAC system designers to use, including free modeling software that can assess the benefits of applying the geothermal hybrid approach on building projects. The software fills a gap for engineers and designers by modeling hybrid systems that can lower the up-front costs of hybrid GSHP. The tool can be used for the following:

- Determine how much money a building owner can save by choosing a hybrid geothermal system
- Select optimal sizes for the equipment in a hybrid system
- Compare different hybrid geothermal installation approaches to understand the financial, energy and environmental impact for a given building project
- Analyze the effects of different control strategies for a geothermal or hybrid system, to keep maintenance costs and energy bills as low as possible.

## ENGINEER & YOUNG ENGINEER OF THE YEAR NOMINATIONS

### *Reminder for Engineer of the Year and Young Engineer of the Year Nominations*

Each year a Vermont engineering society and Vermont engineering college is eligible to nominate one candidate for State of Vermont Engineer of the Year and one candidate for Young Engineer of the Year. So in preparation of Engineers week in January I would like to ask our membership for nominations for prospective candidates to submit to the 2012 selection committee in early January. If anyone knows of a prospective candidate whose professional accomplishments should be recognized please contact me for further information on the process and requirements for candidates in early December.

Mike Cook

## 2011 CRC AWARDS

Here are the (12) awards the Champlain Valley Chapter received at the 2011-2012 CRC in New York City on August 18-20, 2011.

- ▶ Champlain Valley Full Circle
- ▶ Champlain Valley PAOE – Honor Roll, Special Citation – Shawn LaBelle President and Star
- ▶ Champlain Valley Sustainability Activities PAOE – Shawn LaBelle President
- ▶ Champlain Valley Runner Up Research Promotion (% of goal)
- ▶ 2008-2009 History – Amy K. Patenaude
- ▶ 2009-2010 History – Gretchen Langfeldt
- ▶ Certificate of Achievement, Recognition for Exceeding Goal – Sandra LaFlamme
- ▶ 2010-2011 ASHRAE Region 1 Outstanding Performance Research Promotion Honorable Mention – Sandra LaFlamme
- ▶ 2011 Chapter Service Award – Thomas W. Zoller 2010-2011 ASHRAE Region 1
- ▶ Black Ink Award “The Champ” – Natasha Yaryna and Cara Gorman
- ▶ 2010-2011 ASHRAE Region 1 Best Student Design Competition, HVAC Design – Shawn LaBelle and VTC Student Chapter
- ▶ 2010-2011 ASHRAE Region 1 Outstanding Performance Chapter Programs Honorable Mention – Michael R. Cook

Congratulations to the efforts of the entire 2010 – 2011 Champlain Valley Chapter team including Of-

## 2011-12 Presidential Newsletter

2011 -2012 Presidential Award of Excellence (PAOE)

2011-2012 PRESIDENTIAL NEWSLETTER

DATE: May 16, 2011 (revised July 7, 2011)

TO: Chapter Presidents  
ASHRAE Membership Promotion Committee,  
ASHRAE Student Activities Committee, ASHRAE  
Research Promotion Committee, ASHRAE Chapter  
Technology Transfer Committee, Young Engineers in  
ASHRAE Committee, Regional Historians, Assistant  
Regional Chairs, Board of Directors

FROM: Ronald E. Jarnagin

SUBJECT: PRESIDENTIAL AWARD OF  
EXCELLENCE (PAOE)

ASHRAE chapters are the backbone of this Society

and play a central role in helping the Society achieve its goals. Through our collective efforts, ASHRAE chapters are a vital force in the HVAC&R community and a resource for the global community.

My Presidential theme, “Sustaining ASHRAE Through Leadership,” highlights the role ASHRAE members play as leaders in sustainable design and practices.

This marks the sixth consecutive year that the Presidential theme has focused on sustainability. This focus should be so ingrained in our lives that our mission “to serve humanity and promote a sustainable world” inspires our daily decisions.

Several new activities have been added to support the presidential theme and they focus on Leadership, Training, Marketing, Young Engineers in ASHRAE (YEA), Building Energy Quotient (bEQ) and Refrigeration.



## Mission Statement

ASHRAE will advance the arts and sciences of heating, ventilation, air conditioning, refrigeration and related human factors to serve the evolving needs of the public and ASHRAE members.

## Vision Statement

ASHRAE

- ~ Will be the global leader in the arts and sciences of heading, ventilation, air conditioning & refrigeration.
- ~ Will be the foremost, authoritative, timely and responsive source of technical and educational information, standards and guidelines.
- ~ Will be the primary provider of opportunity for professional growth, recognizing and adapting to changing demographics, and embracing diversity.

## Presidential Award of Excellence Totals

Presidential Award of Excellence (PAOE) is the point system ASHRAE Region and Society use to help track the Chapter's activities. The chapter gets points in the below categories for activities that we do throughout the year. The awards banner that you see at the meetings represents CVC's accomplishments over the years. Below are definitions of what some of those awards are. If you want to know more about PAOE check out the www.ashrae.org website and do a search for the 2006-2007 PAOE newsletter.

### End of Year Awards Available to the Chapter:

**PAOE:** Minimum in five of the six categories

**Special Citation:** Minimum in 5 of the 6 categories with a minimum total of 4600 points

**STAR:** PAR in all categories

**Honor Roll:** PAOE for at least 4 consecutive years

**High Honor Roll:** STAR for at least 4 consecutive years

**Premier:** PAOE every year since the chapter's inception or since 1970; minimum of 4 years; chapter's first year is excluded

**Sustainability Activities Award:** A Chapter Sustainability Award in the form of a certificate is available for each chapter that obtains a total of at least 200 points from the items listed under Sustainability

Activities in the Chapter Operations category of PAOE. The Chapter with the highest PAOE Sustainability point total will receive a Regional award in the form of a glass plaque and a certificate. Level 1 = less than 100 members; Level 2 = 100-249, Level 3 = 250-449, Level 4 = 500 or more.

Category	PAR	(2011-12)
Membership Promotion	0	0
Student Activities	0	0
Technology Transfer	0	0
Research & Promotion	0	0
History	0	0
Chapter Operations	0	0
<b>Chapter TOTAL</b>	<b>0</b>	<b>0</b>

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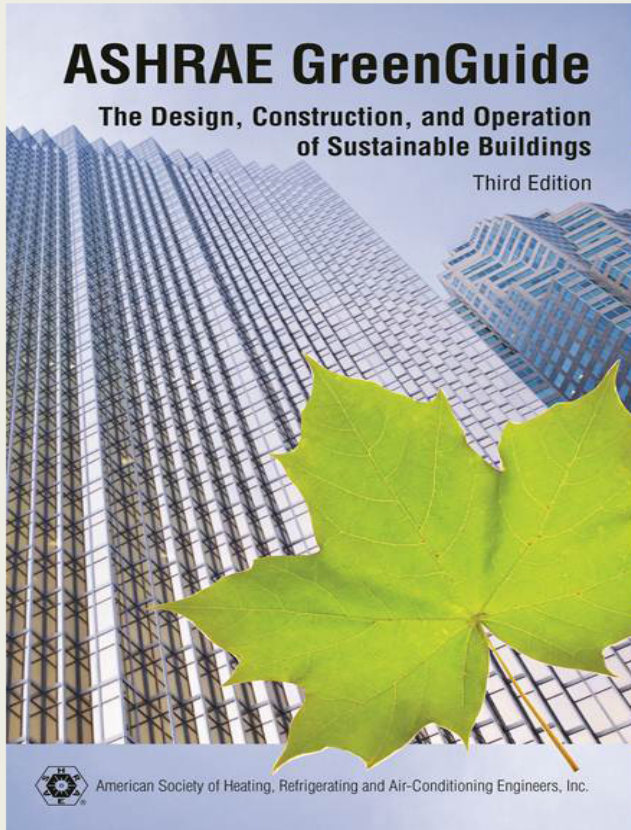
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**Subscription to the newsletter and membership questions should be directed to Nathan Mascolino (802) 655-8805 or nathanm@vhv.com**

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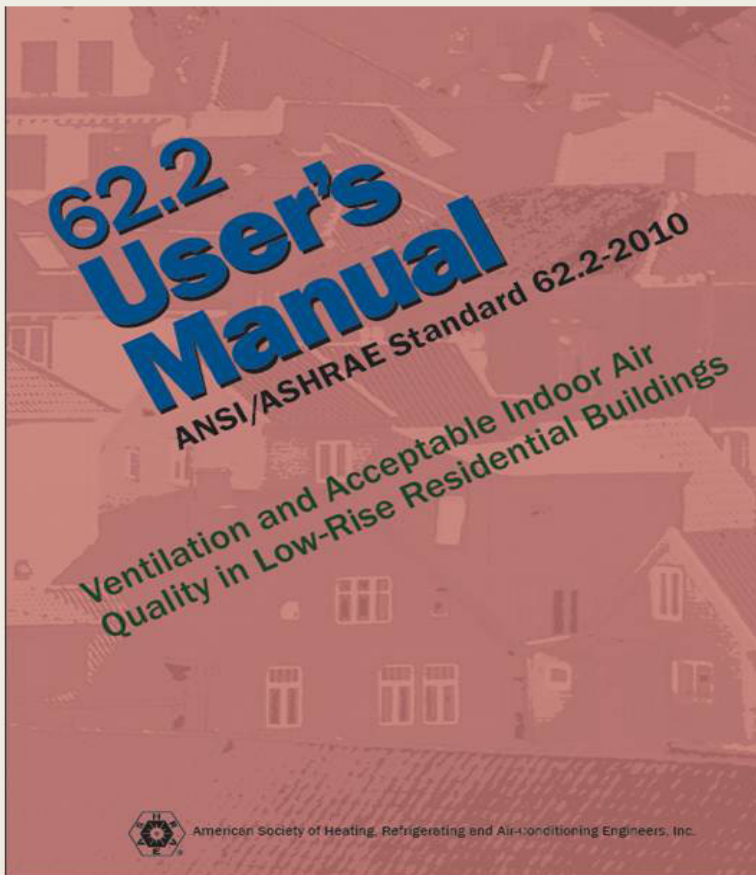
## ASHRAE GreenGuide: The Design, Construction and Operation of Sustainable Buildings, 3<sup>rd</sup> ed.

This manual provides help to HVAC&R system designers in designing a green building. It gives the need-to-know information on every aspect of the building process from planning to operation and maintenance of the facility, with emphasis on teamwork and close coordination among interested parties. New topics in this edition are:

- Guidelines on sustainable energy master plan
- Information on how issues related to carbon emissions affect building design and operational decisions
- New GreenTips, including those with green strategies for chilled water plant and boiler plant design

Dual units; hardcover; 6 x 9 in.; 488 pp; 2010; ASHRAE  
**Price:** \$98 (ASHRAE Member: \$83; Student Member: \$58)  
**Product code:** 90324  
**ISBN:** 978-1-933742-85-4

Purchase at [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore)



## 62.2 User's Manual

This is a complete guide to meet the requirements of *ANSI/ASHRAE Standard 62.2-2010, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings*. This manual provides explanations for every section of the standard and includes many clear, specific examples covering most sections.

Background material is provided for nine sections of the standard and for three appendices, providing explanations for why many of the standard's requirements are included.

Dual units; softcover; 8.5 x 11 in.;  
 488 pp; 2011; ASHRAE  
**Price:** \$55 (ASHRAE Member: \$47)  
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**ISBN:** 978-1-933742-85-4

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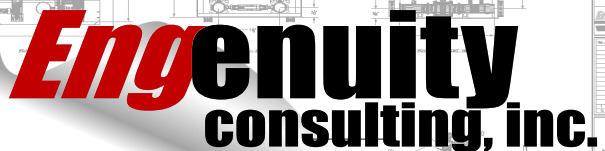


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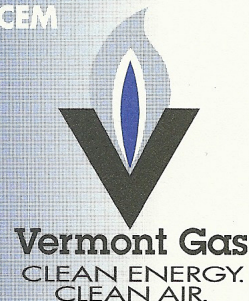
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