



the Champ

Monthly Newsletter of the CHAMPLAIN VALLEY CHAPTER OF ASHRAE

Serving Vermont Since 1969

PRESIDENT'S MESSAGE



While the calendar says we are a month from spring and the prospect of warmer weather I would like to encourage our members to continue to attend our upcoming meetings including ASHRAE Distinguished Lecturer Daniel Nall

(March 7), A DX refrigeration ISTM training course (March 21), an ASHRAE Dedicated Outdoor Air Systems webcast at VTC (April 19), a facility tour at Magic Hat Brewery (May 9) and an exciting end of the year BBQ and Green Expo (June 6). We continue to have great attendance at our meetings so I applaud our membership for making the effort to support chapter events. Please watch our website, future newsletter and emails for more details and information regarding these upcoming events.

Thank you to Barry Murphy of the Vermont Department of Public Service and Tim Guiterman of Navigant for giving us a quick overview of the new Vermont Energy Code and how the code will be administered. Many thanks to Tim Shea of National Life Group for his presentation on a two year effort by the company to undertake mechanical and electrical system improvements to achieve LEED-EB Silver Certification for their 543,992 square foot building in Montpelier, Vermont. Projects included the installation of PV and domestic HW solar panels, lighting fixture and control retrofits including day lighting, a biomass heating system and the addition of VFD's to pump and fan motors. The company has an aggressive waste diversion program and an alternative transportation plan that helped it achieve the

LEED-EB Silver Certification. Over the next few years the company will continue with efficiency

Continued on page 3...

Join Us For Our Next Meeting March 7, 2012

BOG Meeting 4:00 pm @ Hampton Inn

Technical Presentation @ 6:00 PM –

ASHRAE Distinguished Lecturer Daniel Nall
ASHRAE 50% Advanced Energy Design Guide
for Small and Medium Office Buildings and ...

Dinner @ 7:00 PM

Main Presentation @ 8:00 PM – ASHRAE

Distinguished Lecturer Daniel Nall
An update on the Building Energy Quotient
(bEQ) committee work

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2011-2012 ASHRAE CVC MEETING CALENDAR

March 2012
Vol. 26 No. 7

September 7	October 5	November 2	December 7	January 4
<p>Location: Hampton Inn</p> <p>4:00 pm: BOG Meeting @ VHV Offices</p> <p>5:30pm: Tour FAHC Boiler Plant</p> <p>7:00pm: Dinner @ Hampton Inn</p> <p>8:00pm: Presentation David Golen FAHC Boiler Room Plant Upgrades</p>	<p>Location: Hampton Inn</p> <p>4:00pm: BOG Meeting @ Hampton Inn</p> <p>6:00pm: Tech Session BMS and Lighting Controls Randy Mead CTI, C.E.M., CMVP, LEED AP</p> <p>7:00pm: Dinner @ Hampton Inn</p> <p>8:00pm: Presentation Utilizing a BMS in the Building Commissioning Process / John R. Butterfield, P.E. Hallam Associates</p>	<p>Location: Hampton Inn</p> <p>4:00pm: BOG Meeting @ Hampton Inn</p> <p>Membership Promotion Night and Joint Meeting with RSES</p> <p>6:00pm: Tech Session Overview on all Refrigerants Steve Friedman, PE, HFPD, LEED AP BD+C - Region 1 Refrigeration Chair</p> <p>7:00pm: Dinner @ Hampton Inn</p> <p>8:00pm: Presentation Milton Garland Award Winning Project Overview Featuring a CO2 Refrigeration System / Mark Cambria, P.E., LEED AP BD+C, CCP</p>	<p>Location: Hampton Inn</p> <p>4:00pm: BOG Meeting @ Hampton Inn (Joint Meeting with VGBN)</p> <p>5:30 - 6:30pm: Social Mixer</p> <p>6:30pm: Presentation Emerging Energy Modeling Tools Joshua W. Talbert, P.E., LEED AP BD+C Christopher K. Wilkins, P.E. Hallam-ICS, Director of Engineering</p>	<p>Location: Hampton Inn</p> <p>4:00pm: BOG Meeting @ Hampton Inn (Joint Meeting with AIA on non-HVAC topic)</p> <p>6:00pm: Contract Law & T&M vs Flat Rate Pricing and Billing Strategies</p> <p>7:00pm: Dinner @ Hampton Inn</p> <p>8:00pm: Section 179D Federal Energy Tax Deduction Seminar</p>
				<p>January 16 & 17</p> <p>Full day Seminar with Efficiency Vt/VGBN/ BED</p> <p>Energy Modeling in eQuest</p> <p>RP Fundraiser</p>
February 1	March 7	April 19	May 9	June 6
<p>Location: Hampton Inn</p> <p>4:00pm: BOG Meeting @ Hampton Inn</p> <p>6:00pm: VT Commercial Energy Code and Compliance Plan Seminar - By Tim Guiterman - Navigant and Barry Murphy -Vermont Department of Public Service</p> <p>7:00pm: Dinner @ Hampton Inn</p> <p>8:00pm: Life Group LEED-EB silver accreditation Project - By Tim Shea</p>	<p>Location: Hampton Inn</p> <p>4:00pm: BOG Meeting</p> <p>6:00pm: Tech Session DL Daniel Nall 50% Small and Medium Office AEDG</p> <p>7:00pm: Dinner @ Hampton Inn</p> <p>8:00pm: Presentation DL Daniel Nall ASHRAE Building Energy Quotient (bEQ)</p>	<p>Location: VTC</p> <p>TBD: BOG Meeting</p> <p>VTC ASHRAE Club as Host</p> <p>Program 1:00pm - 4:00pm ASHRAE Webcast "DOAS - A Path to Balancing Energy and IEQ." 4:30pm Student Report on Chicago ASHRAE show 5:00pm Dinner 5:45pm Presentation on 2012 Student Design Competition Submission</p>	<p>Location: Magic Hat</p> <p>TBD: BOG Meeting</p> <p>Membership Promotion Night</p> <p>Facility Tour – Proposed Magic Hat Digester</p> <p>Dinner – TBD</p>	<p>Location: TBD</p> <p>TBD: 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>



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PRESIDENT'S MESSAGE *(continued from page 1)*

upgrades with the goal of achieving LEED-EB gold accreditation.

I would like to invite you to our March 7 meeting. Our chapter will be hosting ASHRAE Distinguished Lecturer, Daniel Nall, who will give two presentations, the first will discuss the ASHRAE Building Energy Quotient (bEQ) program and his second will be a discussion of the recently released Advanced Energy Design Guide focusing on 50% savings for small and medium offices. Please see the Technology Transfer section of this newsletter for more information on the speaker and his presentations.

If any of our members has a family member, relative or friend who will be attending college enrolled in a mechanical or architectural engineering program encourage them to apply for the Champlain Valley Past President's Memorial Scholarship (\$2,500). See the Student Activities section of the newsletter

for more information and minimum requirements to apply for the scholarship. Applications for the scholarship are due to Shawn LaBelle by March 28, 2012.

The new and improved Champlain Valley Chapter website www.ashraevt.org is coming along nicely. We are continuing to make modifications and adjustments through our website committee. Please feel free to send any comments or ideas to me and I will pass them along to the website committee. I would like to encourage members to use the electronic RSVP available on the website to sign up for our monthly meetings. Remember signing up is necessary to allow us to coordinate head counts with the Hampton Inn to make sure there is enough food for everyone.

Michael R. Cook
Chapter President

TECHNOLOGY TRANSFER

Thank you to everyone that came out for our February meeting, we had a fantastic turnout and two very informative presentations. Thanks to Tim Guiterman of Navigant and Barry Murphy from the Vermont Department of Public Service for keeping us informed about the newly adopted CBES. And a big thanks to Tim Shea from National Life Group for sharing his environmental initiatives and achievements on NLGroup's LEED-EB silver accredited building in Montpelier, VT.

We have a very special guest for March's meeting. ASHRAE Distinguished Lecturer Daniel H. Nall, FAIA, P.E. will present on the new ASHRAE 50% Advanced Energy Design Guides for Small and Medium Office Buildings and For Medium and Big Box Retail. Mr. Nall will also give us an update on the BEQ committee work.



Presenter
Daniel H. Nall, FAIA, P.E.
Senior Vice President,
Flack + Kurtz, Inc.
New York, NY

Mr. Nall is a Senior Vice President of Flack and Kurtz Engineers in New York. A graduate of Princeton University and Cornell University, he is a Registered Architect, a Professional Engineer, and a LEED Accredited Professional. He has been a member of the Board of Directors of the NY Chapter, USGBC and has been the vice-chairman of the USGBC Energy and Atmosphere Technical Advisory Group. ASHRAE activities include the ASHRAE Sustainability Oversight Committee, TC 4.7, the Project Committees that authored the ASHRAE Advanced Energy Design Guide for Small Retail Buildings, the AEDG for Small Office Buildings, the AEDG for Warehouses, and the AEDG for Roadside Lodging.

Mr. Nall was named one of the "25 Newsmakers of 2007" by Engineering News Record magazine. He was named "Outstanding Practitioner, 2004", by the US Chapter of the International Building Performance Simulation Association. He has been a member of the AIA National

Committee on the Environment, and is a Fellow of the AIA. He was the Chairman of the City of Atlanta Urban Design Commission, 1987-88. Notable projects include the Hearst Corporate Headquarters, the Clinton Presidential Library, the New York Times Headquarters and the Alcoa Corporate Headquarters. He is the author of over 30 papers in technical and professional journals, He is a visiting Lecturer at the University of Pennsylvania and has been a Visiting Lecturer at the Princeton University School of Architecture and an Adjunct Associate Professor of Architecture at Columbia University.

First Presentation - Development of the new ASHRAE 50% Advanced Energy Design Guides for Small and Medium Office Buildings and For Medium and Big Box Retail

By ASHRAE Distinguished Lecturer Daniel H. Nall, FAIA, P.E.

Overview: The ASHRAE 30% Advanced Energy Design Guide program is now concluded, having produced six volumes that have been well received by the building design and construction professions. The next group of publications will provide guidance as to how to achieve a 50% savings compared with ASHRAE Standard 90.1-2004. The first two of these volumes, the ASHRAE 50% Advanced Energy design Guide for Small and Medium Office Buildings and the AEDG for Medium and Big Box Retail have now been printed. This session will present some of the insights and lessons learned from the development of that publication.

In general, getting a 50% savings compared with ASHRAE 90.1-2004 is not a trivial exercise. The approach to every building system was examined to find maximum savings. Some systems cited in the 30% Advanced Energy Design Guide failed to achieve the desired level of savings and were deleted. This presentation will present recommendations in the volume for building envelope systems, lighting and daylighting systems and building mechanical systems. With the aggressive savings goals for this guide, synergies and interactions among building systems can very important for meeting the goal. This presentation will also address some of the integration issues that were identified and discussed in

this publication.

cities located in the 8 US climate zones.

Learning Objectives:

1. Present the organization of the new guide and compare it with the format for the previous 30% series.
2. Describe how the recommendations for the ASHRAE 50% Advanced Energy Design Guide were determined using a comprehensive program of building energy simulation
3. Identify the savings available in the eight climate zones using the recommendations in the guide.
4. Present systems integration issues identified in the book.
5. Present many of the energy conservation strategies required to meet the 50% savings goal.
6. Demonstrate how some of these strategies have already successfully been incorporated into existing buildings.

Methods of Assessment:

Question 1:

What is the most essential requirement for achieving the 50% energy savings?

A: The Owner's buy-in..

Question 2:

What is the size range of buildings referenced in the guidebook?

A: Office buildings up to 100,000 ft².

Question 3:

What is the basis for the recommendations presented in the document?

A: Extensive building energy simulations in 16 cities located in the 8 US climate zones.

Question 4:

What is the comparator standard used for the guidebook?

A: ASHRAE 90.1-2004.

Question 5:

What is the basis for the recommendations presented in the document?

A: Extensive building energy simulations in 16

Question 6:

Close cooperation between what three groups is necessary to insure that the constructed project meets the energy performance goals?

A: Design Team; construction team, commissioning team.

Question 7:

What strategy is particularly effective in meeting both the goals of the AEDG and ASHRAE Standard 62.-2004?

A: Decoupling of outside air delivery rate from sensible temperature control

Question 8:

What are the additional envelope measures required to achieve 50% energy savings?

A-7a:Basic structure, form and orientation sensitive window to wall ratios.

A-7b:Reducing thermal bridges at roof/wall intersections, foundations and windows.

A-7c:Vestibules at all major entrances.

Question 9:

What is the dominate luminaire used to achieve the lower lighting power densities while maintaining proper light levels?

A: High-performance lensed fluorescent 2x4 luminaires

Second Presentation -ASHRAE Building Energy Quotient (bEQ)

ASHRAE is embarking upon a program to develop a comprehensive building energy labeling program called Building Energy Quotient (bEQ). The objective of this labeling effort is to provide motivation for reducing energy use in commercial buildings by expressing the energy performance of buildings in a tangible way. Commercial buildings are those buildings covered by the scope of ASHRAE/IESNA Standard 90.1. The Society's charge to the ad-hoc committee directed that building energy performance labels be developed to include both building design and operation. The underlying belief is

that public display and disclosure of the energy efficiency attributes of a building and its energy use intensity (EUI) will lead building owners to strongly consider cost effective energy efficiency improvements at the time of design and construction and in any subsequent renovations. Public display and disclosure of energy efficiency attributes and EUI should be a relevant factor in the real estate transaction marketplace for commercial buildings. Marketplace actors would take this information into account when buying, selling or financing a commercial property. Energy efficient buildings should command more favorable terms in the real estate market, all other factors being equal. Conversely, buildings that are documented as having high energy use and energy operating costs should be perceived as having less value in the market. Research by the EPA Energy Star program and the CoStar Group indicate that energy efficiency investments can have positive financial benefits for building owners and operators.

bEQ will incorporate both an operational rating, based upon actual energy billing, and an asset rating that normalizes for operational variables. The two rating systems will thus be able to communicate both the performance of the building as operated and the potential performance of the fixed assets of the building.

This session will present the major ideas behind the development of the labeling program and the proposed process for implementation.

#1 How can building energy labels influence the energy efficiency of the overall building stock

#2 How the new ASHRAE bEQ is different from other labeling systems?

#3 What metrics are most important for conveying the energy efficiency of a building

#4 How ASHRAE's Building Energy Labeling program will be implemented.

Hope to see everyone on March7th!
Tom Dacres

MEMBERSHIP PROMOTION

Hello Champlain Valley Chapter and thanks to all of you who joined us for the February meeting. We had an excellent turn out for two very well put together presentations.

I would like to thank the membership committee for the campaign to reduce the chapter delinquency. Their efforts are paying off and I am happy to say that our chapter delinquency total is as low now as it has been in any of the past 6 months. The committee strives for a zero delinquency, and we will work diligently to get there. Thank you to all who have renewed their membership on line. You may notice that the ASHRAE home page has a new look, and as part of this new look joining and renewing membership is easier than ever.

I encourage everyone to make an effort to attend the March meeting on the 7th. We will be hosting an ASHRAE distinguished lecturer who will be speaking on the ASHRAE Building Energy Quotient, and on small and medium office buildings.

I would like to welcome a new member to the Champlain valley ASHRAE chapter. Thank you for joining us Todd Hallock, I hope that ASHRAE is rewarding for you.

The planning has started for the spring membership promotion night at the magic hat brewery. If anyone has suggestions, or requests I welcome them. Please email or call me.

I encourage everyone to log on to the new ASHRAE CVC web page (<http://www.ashraevt.org/>) to check it out. It's a work in progress, and is looking really good.

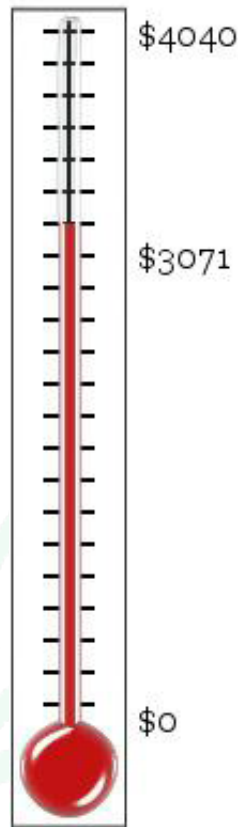
Nathan Mascolino



RESEARCH PROMOTION

I am happy to announce that we have achieved 76% of our chapter RP fund goal to date. The BOG and I thank everyone who has donated for their generosity in helping us work towards our yearly goal. We give special appreciation to the companies who have participated in the vendor table program at our monthly meetings, the proceeds from which helps to fund our Research Promotion campaign.

Rob Ward
RP Chair



two scholarships again, the VTC ASHRAE Award (\$500) and the Champlain Valley Past President's Memorial Scholarship (\$2,500). The VTC ASHRAE Award is given to a student that shows excellence in HVAC system design or who is active in ASHRAE at the student and local chapter levels. This student is selected by the faculty of the VTC Architectural & Building Engineering Technology department. The scholarship money is funded by all the proceeds from our newsletter advertisement. So a big thanks goes out to all who paid for an advertisement in the newsletter this year.

Just a reminder the 2012 ASHRAE Champlain Valley Past President Memorial Scholarship due date is March 28th, 2012. Please make sure to have those submitted to Shawn LaBelle either through mail or email by the due date. The application is posted on our new website.

Also a reminder that we will be holding April's meeting at Vermont Technical College in the Judd Gymnasium. We will be webcasting one of ASHRAE's webcasts "Dedicated Outdoor Air Systems: A path to Balancing Energy and IEQ" from 1pm-4pm on Thursday April 19th. More information on the broadcast is located on the ASHRAE website at www.ashrae.org/doeswebcast. Dinner and student presentations will follow.

Thanks!
Shawn LaBelle

STUDENT ACTIVITIES

VTC Chapter

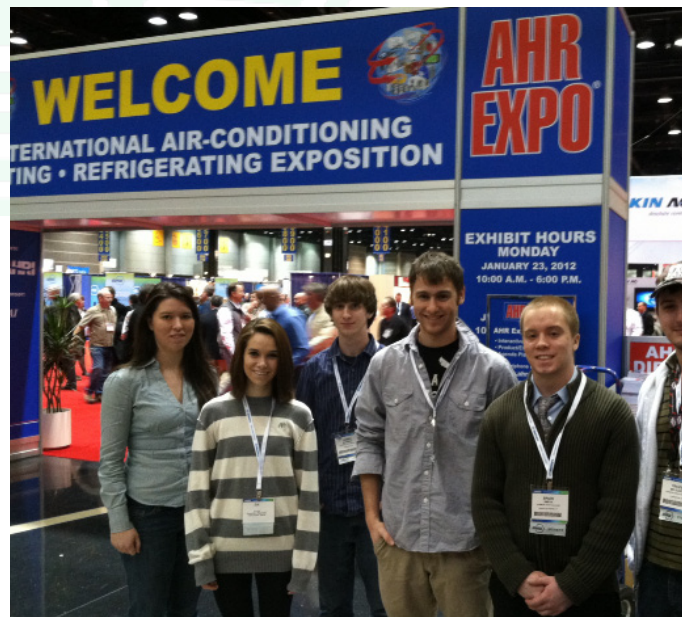
Committee Chair:	Shawn LaBelle
Student Chapter Advisor:	Chris Reilly
Student Chapter President:	Erin Fajans

I want to personally thank the following students and Professor Chris Reilly for representing the Champlain Valley Chapter and Vermont Technical College at the 2012 ASHRAE Winter Conference in Chicago, IL.

Erin Fajans	Stephen Piro
Brian Smith	Travis McJuary
James Blakely	Victoria Cousino

I also want to thank Vermont Technical College and the Champlain Valley Chapter for supporting the Student ASHRAE Chapter of VTC, without their support this trip would have not been possible. Thanks again.

This year the Champlain Valley Chapter will be offering



TREASURE'S REPORT

As of today, February 18, 2012, all bills are paid and our TD Bank checking account balance is \$10,850 - down from last month by \$616. Within the last month, we have opened a second checking account at TD Bank to handle expenses and income we will encounter as we host CRC-2013.

The new CRC-2013 account started with \$1,000 on January 19th, 2012. The \$1,000 came from a transfer from our regular checking account.

ECHO, on Lake Champlain requested a deposit to host a CRC-2013 event and Peter Bailey sent them a check drawn on the new account. Peter Bailey was appointed as CRC-2013 funds treasurer and as such, is authorized to pay bills and collect money for that event. Until his capacity as new overall treasurer is confirmed on July 1st, 2012, I will remain responsible for both the regular and new CRC-2013 checking account, but Pete is authorized to write CRC-2013 checks and make deposits.

Today the balance of that account is \$316. The expenses to date? Check printing costs and the ECHO event deposit.

Ken Secor, Treasurer

BOG MEETING MINUTES

February 1, 2012 BOG Meeting Minutes

Date: 02/01/2012
Location: Hampton Inn, Colchester VT
Time Called to Order: 4:05pm
Called to Order By: Mike Cook
Minutes Recorded By: Robert J. Favali, Secretary

ATTENDANTS

Mike Cook	ARC Mechanical
Ken Secor	KPS Consulting
Tom Dacres	VHV
Nathan Mascolino	VHV
Dick Wilcox	VHV
Rachael Mascolino	Efficiency Vermont
Robert J. Favali	DuBois & King, Inc

Peter Bailey
Rob Ward

Dodge Engineering Inc
VHV

LAST MEETING MINUTES

A Motion to approve the December 2011 Meeting Minutes as corrected was made by Ken Secor. The motion was seconded by Rachael Mascolino and it was carried.

OFFICER REPORTS

A.) President: Michael R. Cook

a.) Mike discussed the progress Nominating Committee noting that the February 1 due date for nominations will be delayed until the March meeting. The process of filling all open positions is on-going. This was for information only and no action was required.

b.) Mike continued a discussion from last month on establishing a permanent committee for website overview and a general review of the Chapter's By-Laws was reviewed. The Bylaws permit a publications and newsletter committee (8.3).

A motion was made by Ken Secor: To revise the current special committee for website overview to a non-mandatory standing "Electronic Communication Committee" effective July 1, 2012.

The motion was seconded by Pete Bailey and it was carried.

c.) Tom suggested that the CTTC should have access for website updates. After some discussion, it was agreed that the Chair will have access for content-only revisions. Rachel will forward to Tom the password and instructions. This was for information only and no action was required.

d.) Mike led a general discussion and reviewed the following items:

- 1) Reports and minutes need to be into Mike Cook and Cara Gorman by Friday, February 15, 2012.
- 2) Mike reminded that we need to continue to update of our PAOE (Presidential Award of Excellence) points.
- 3) Mike noted that our YEOY and EOY submissions did not win.
- 4) These items were for information only and no action was required.

e.) Mike noted that invoices for advertisements in the Newsletter have been released. He discussed whether it makes sense to have the Treasurer handle the Newsletter invoices

instead of the President.

A motion was made by Ken Secor: To have the Treasurer assume the duty of issuing the invoices for the Newsletter advertisements (in lieu of the President) effective July 1, 2012. It was seconded by Tom Dacres and the motion was carried.

f.) Mike reviewed the current status of the CRC-2013

1) A separate bank account has been established for all expenses in order to keep the costs of the CRC separate from normal Chapter events.

2) The Friday night dinner at the Echo Center has been reserved. An early payment needs to be sent (see Treasurer's Report below).

3) This was for information only and no action was required.

B.) President Elect- Tom Dacres – CTTC Chair

Tom gave an update on the status of upcoming meetings. He noted that the E-Quest Training event broke even and that the DL Speaker for March is scheduled.

A discussion was held over the possibility of the Chapter becoming an Affiliate Member of AIA-VT at the cost of \$130.00 per year. This provides the Chapter with event listing on the AIA-VT monthly calendar and possibly access to mailing lists. Rob Favali will get additional information for the March meeting. This was for information only and no action was required

C.) Vice President – Nathan Mascolino - Membership Chair

Nathan noted that the next Membership Night meeting will be in May and will take place at the Magic Hat Brewery. Additional items required for Membership Night (Raffle, reduced beverage costs, and dinner) was tabled until the March meeting.

D.) Treasurer – Ken Secor

Ken gave an update on the status of the scholarship account. The balance is \$800.00. He noted that the year started at a zero balance due to \$3,000.00 in awards issued last year.

Ken discussed the establishment of the separate account for the CRC-2013. Peter Bailey is the Treasurer for the CRC. A seed amount of \$1,000.00 was transferred into the account.

Ken will provide a Treasurer's Report and Pete will provide a

CRC Treasurer's Report for the Newsletter;

E.) Chapter Secretary – Rob Favali

Nothing new to report

F.) History – Gretchen Langfeldt

Nothing new to report

G.) Refrigeration – Peter Bailey

Pete discussed the Hill-Phoenix presentation scheduled for March 21, 2012. Hew noted that a survey was sent out to gauge interest. The conclusion was a presentation on ISTM.

H.) Student Activities – Shawn LaBelle

Shawn was not here but an update was provided by Mike Cook. Mike noted that the Chapter's website registration through "Go Daddy" has been closed. An appreciation award will be given to Bill Atkinson for his past financial support of the Chapter's website service. Pete Bailey will get the plaque.

I.) Research Promotion – Rob Ward

Rob noted that we are at 76% of our RP Fund goal.

MEETING ADJOURNED

A motion to adjourn the meeting was made by Ken Secor and seconded by Dick Wilcox. It was carried and the meeting adjourned at 5:36 PM.

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

LEADERSHIP QUOTE of the MONTH

“There are people who make things happen, there are people who watch things happen, and there are people who wonder what happened. To be successful you need to be a person who makes things happen.”

~ Jim Lovell

GENERAL MEETING MINUTES

February 1, 2012

Date: February 1, 2012
 Location: Hampton Inn,
 Colchester VT
 Minutes Recorded by: Robert J. Favali,
 Secretary

Steve Poole
 Dick Wilcox
 Rob Ward
 Rick Hodgson
 Shawn LaBelle
 Phil Bresnahan
 Corey Griffiths
 John Grout
 Barry Murphy
 Mike Skorski
 Glenn Erb
 Jonathan Aldrich

Vermont Heating & Ventilating
 Vermont Heating & Ventilating
 Vermont Heating & Ventilation
 Vermont Mechanical Inc
 Vermont Mechanical Inc
 Vermont Mechanical Inc.
 Vermont Mechanical Inc.
 Victaulic Company
 VT Dept of Public Service
 Weston & Sampson

ATTENDANTS (41)

Ray Hickey	Advanced Comfort Systems
Harris Unger	Advanced Comfort Systems
Mike Cook	ARC Mechanical
Brice Kosnik	Basix Automation Integrators
Matt Murphy	Blake Group
Charles Verenneau	Control Technologies
Chris Vintinner	Controls Technology
Tom Anderson	Cx Associates LLC
Eveline Killian	Cx Associates LLC
Trevor Gensch	Daikin
Pete Bailey	Dodge Engineering
Rob Favali	Dubois & King Inc
Mike Spasyk	Dubois & King Inc
Matt Dooley	Efficiency Vermont
Paul Duane	Efficiency Vermont
Sheryl Graves	Efficiency Vermont
Rachael Mascolino	Efficiency Vermont
Jay Pilliod	Efficiency Vermont
Mary Jane Poytner	Efficiency Vermont
Steve Booth	Efficiency Vermont
Todd Hallock	F.W.Webb
Peter Irving	Fletcher Allen
Wallace Pooler	Fletcher Allen
James Ashley	Green Mountain Geothermal
Seth Vellin	IBM Central Utilities
Joe Coutermarsh	JFPCS, PC
Joshua Chiappone	Johnson Controls
Bob Gatchell	Johnson Controls
Ken Secor	KPS Consulting
Scott Alexander	LN Consulting
Steve Kreigh	Mylan Technologies
Tim Shea	National Life
Keith Downes	Navigant Consulting
Tim Guiterman	Navigant Consulting
Clark Sweeney	Sweeney Refrigeration & HVAC
Jason Hudspath	Thermal Environmental Sales
Joe Kazukenus	Thermal Environmental Sales
Tom Zoller	Trane Company
Rich Fredelle	Urell Inc.
Tom Dacres	Vermont Heating & Ventilating
Nathan Mascolino	Vermont Heating & Ventilating

TECH SESSION

This month's technical session was a presentation on the updates to the 2011 Vermont Commercial Building Energy Standards (CBES) and Compliance Plan. The presentation was by Barry Murphy, Energy Program Specialist for the Vermont Department of Public Service and Tim Guiterman, Managing Energy Consultant for Navigant Consulting. The presentation reviewed the updates to the CBES plus described the new requirements for both design and construction certifications that became effective in January 2012. The presentation concluded his presentation with a question and answer session.

GENERAL MEETING AND MAIN PRESENTATION

During the general meeting, President Mike Cook gave a series of announcements. He noted that applications are available for the Chapter's Scholarship Plan. He also noted that nominations are still open for selected Chapter positions. Finally he noted that there is a new electronic sign-up feature on the Chapter's website and encouraged us to use this as the primary means for making our monthly dinner reservations.



The main presentation, by Tim Shea, 2nd VP of Facilities, at National Life Group, was on the LEED-EB Silver accreditation at the National Life Building in Montpelier VT. This is the largest and oldest building in Vermont to receive LEED-EB Silver and Tim's presentation gave a historical and practical description of the effort to achieve this award. He also reviewed the facility's efforts to install solar-PV system, a biomass central boiler system, and to revise and improve the facility's recycling program. The presentation concluded his presentation with a question and answer session.

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

REFRIGERATION

To All:

I am pleased to announce that our ASHRAE CVC will be sponsoring another work shop with Hill PHOENIX Learning Center. Our first work shop that was given in 2011 had a great turnout with a mix of engineering people and service technicians. This year unlike last, we will have the work books available the day of the class. I have asked Hill PHOENIX to get us all the books several weeks in advance as to not having another problem with books as we did last year.

This years training will be more in-depth focusing on Installation, Start-up & Trouble shooting refrigeration racks. In our afternoon session we will have a few hours dedicated to how a CO2 system operates. Because we do not have a CO2 system in VT is why we did not dedicate a full day of training towards this technology.

2012 - ASHRAE
Refrigeration Rack Systems
Day - Seminar

Wednesday — March 21, 2012
Held at Hampton Inn – Colchester, VT

8:00 Am - 4:00 Pm

\$87.00 (includes continental breakfast, lunch and training books)

Direct Expansion (DX) Refrigeration Installation, Startup, Troubleshooting and Maintenance

This Hill PHOENIX Learning Center course in Direct Expansion (DX) Systems Installation, Startup, Maintenance and Troubleshooting is intended to provide participants with a working knowledge of how to properly install, startup, maintain and troubleshoot DX refrigeration systems. Participants will learn about the sequence of operations, installation materials and piping techniques.

About the Instructor - Rusty Walker – Corporate Learning Center

Rusty Walker is the trainer for the Hill PHOENIX Learning Center. He has been in this position since the Learning Center was developed over five years ago; however, this is a position that he has trained for his entire career. In Rusty's previous eight year career with Hill PHOENIX he has worked in engineering, completed field work, and also managed the Research and Development lab. In addition to his career with Hill PHOENIX Rusty has also worked with Atlanta Energy Specialist as a technician, at Bohn, and at Heatcraft. Rusty has basically committed his entire career to commercial and supermarket refrigeration. His background, education, and experience have prepared him for his current position, where participants of his programs give him high marks (average score of 94.5%). The Learning Center audiences vary from the supermarket end-user and design engineers to field service and installation personnel. Rusty's teaching style not only helps you retain a high level of information, but also make the process fun and committed to meeting each participants needs and expectations.

Pre – registration must be in by March 16th
Register on line at ASHRAEVT.org



The **ASHRAE Champlain Valley Chapter** and the **Hill PHOENIX Learning Center** will be providing training for you and your team to keep you well informed of the latest technologies and trends in the industry. Get the knowledge you need to help mitigate costs, protect your profits and increase your bottom line.

ASHRAE CVC - will be sponsoring the following course in our area:

Direct Expansion (DX) Refrigeration Installation, Startup, Troubleshooting and Maintenance

This Hill PHOENIX Learning Center course in Direct Expansion (DX) Systems Installation, Startup, Maintenance and Troubleshooting is intended to provide participants with a working knowledge of how to properly install, startup, maintain and troubleshoot DX refrigeration systems. Participants will learn about the sequence of operations, installation materials and piping techniques.

Value of this Course

The material covered in this course is designed to provide you with the knowledge you need to intelligently discuss DX System with customers. Whether you are a sales associate, a dealer, company employee, a customer or a field service engineer, the information in this course will aid you in working towards your company's success.



Wednesday, March 21, 2012

Hampton Inn • Mountain View Drive • Colchester, VT 05446

Pre – registration must be in by March 16th Cost is - \$87

Register on line at ASHRAEVT.org

7:30 a.m.

Sign in and registration

8:00 a.m. – 4:00 p.m.

DX System ISTM Course

LUNCH WILL BE PROVIDED

Notice - HVAC Contractors

The U.S. Environmental Protection Agency now requires that HVAC contractors be credentialed in order to install ducted heating/cooling systems or heat pumps in new ENERGY STAR Homes. The credential is the Quality Assured Contractor certification from ACCA (Air Conditioning Contractors of America) and it is required for residential projects only.

One HVAC technician per company needs to become certified; this will certify the entire company. The first step is an ACCA-required online orientation session. There is a fee for the orientation, but Efficiency Vermont and Vermont Gas Systems will reimburse the cost of one session per company.

To learn more about the changes to the ENERGY STAR Homes program and to hear general highlights about the ACCA credential, attend an information session on March 21st at FW Webb, 80 Park Avenue, Williston, Vermont, at 8:00 a.m.

Come to the session to learn:

- why ACCA credentialing gives you a competitive edge whether working on ENERGY STAR homes or not;
- how to move forward with the ACCA credentialing process;
- how to receive \$750 from Efficiency Vermont and Vermont Gas Systems toward ACCA's orientation, application, and first year credentialing fees.

RSVP to Chris Gordon, toll-free, at 1-888-921-5990 extension 7683 or cgordon@veic.org. More information can be found at www.encyvermont.com/VESH.

ASHRAE Evolves in Recognition of Role of Providing Total Building Guidance

Jan 21, 2012

Contact: Amanda Dean
Public Relations
678-539-1216
adean@ashrae.org

CHICAGO—Throughout its 117-year history, ASHRAE has been the go-to source in the HVAC&R industry for standards, education and other resources for engineers. As the role of HVAC&R has progressed to incorporate many facets of building design, construction and operation ASHRAE has changed as well. Today, ASHRAE is announcing an evolution of its brand to reflect those changes. Elements of the repositioning include a

refreshed logo, a new tagline and a change to using only its acronym.

The announcement was made today at the Society's 2012 Winter Conference being held this week in Chicago. "ASHRAE's original commitment to HVAC&R engineering excellence remains resolute even as the Society continues to expand its influence into all facets of building design, construction, reconstruction and operation," ASHRAE President Ron Jarnagin said. "Just as integrated design is the cornerstone of sustainable buildings, ASHRAE members create an integrated body of knowledge to make buildings as high performing as possible."

The repositioning of the ASHRAE brand evolution is an acknowledgement of ASHRAE's broadening scope beyond HVAC&R to include standards, research, publications and educational resources relating to total

building design, energy efficiency efforts and sustainable building technologies, otherwise referred to as the total building environment, according to Jarnagin. Over the years, ASHRAE has worked to provide resources on a wide range of industry practices and issues such as commissioning, building automation control, indoor environmental quality for buildings and aircraft, energy efficiency and the smart grid initiative.

The most visible change is the refreshed Society's logo, which was created in 1959 when the American Society of Refrigerating Engineers and the American Society of Heating and Ventilating Engineers merged to form ASHRAE.

"We want our logo to reflect that we are looking ahead," Tom Watson, chair of the logo ad hoc committee, said. "The industry has changed and so have we. In creating this logo, we wanted to pay homage to our HVAC&R origins by keeping the familiar hexagon and traditional shade of blue, while looking forward to a more sustainable future."

Along with the new logo, ASHRAE also has a new tagline: Shaping Tomorrow's Built Environment Today. The tagline serves as a promise to members, and the industry, that whatever the future brings in the built community, ASHRAE will be at the forefront for research and guidance. Lastly, the Society is doing business as "ASHRAE" vs. using its full legal name of the American Society of Heating, Refrigerating and Air-Conditioning Engineers. Use of ASHRAE reflects the Society's worldwide membership and that services will continue evolving globally.

In addition, the rebranding coincides with a redesign of ASHRAE.org. With this redesign comes better navigation, a better search engine and better tracking, all of which will help ASHRAE members find the information they need, whether it's for their role in the industry or ASHRAE. ASHRAE, founded in 1894, is a building technology society with more than 50,000 members worldwide. The Society and its members focus on building systems, energy efficiency, indoor air quality and sustainability within the industry. Through research, standards writing, publishing and continuing education, ASHRAE shapes tomorrow's built environment today.

Green Hornet's Nest

Meghan A. Douris

HOW TO HELP IDENTIFY AND OVERCOME THE RISKS OF LIABILITY ASSOCIATED WITH GREEN DESIGN AND CONSTRUCTION. (excerpted from Environmental Design & Construction February 12 edition)



No good deed goes unpunished, and sadly, sustainable design and construction is proving to be no different. That the market is pushing forward with green building should come as no surprise to those in the construction industry — but the extensive professional liability risks might.

Increased liability exposure for projects coming under the "green building" purview arises from two major issues. First, with the explosion of "green" and "sustainable" being branded on everything from paper towels to luxury condominiums, there is the risk of heightened expectations on the part of the end user of the project. Second, as of yet, there are still no universally accepted standards for what qualifies as green.

Looking at the first issue, design professionals must be cognizant of any green representations they're making to the owners of the project. Owners, potential buyers and developers may have very different understandings of what green means, and managing expectations is the key. The aggressive marketing of those in the green construction industry, including manufacturers and consultants, which are then passed along by the design professional could possibly lead to allegations of fraud when the end product does not measure up. Moreover, construction professionals must be careful with the representations they are making about their qualifications and experience

with green building, which could elevate the standard of care to which they are held.

Questions and claims have arisen on a variety of issues. For example, what if the building was intended to meet certain LEED certification or other green standards but ended up falling short of the requirements? What if it failed to receive expected tax breaks — either due to delay or performance? How do you incorporate and handle changes in the code requirements as more and more municipalities attempt to green their legislation? Are there patent issues to consider with these new green technologies? Understanding the green construction market will help design professionals and builders understand and reduce the inherent risks.

Professional industry groups are beginning to provide framework to help their members understand their role in the green movement. The American Institute of Architects (AIA) advocates the public policy that “architects must be environmentally responsible and advocate for the sustainable use of those resources.” The AIA Code of Ethics requires its members to promote sustainable design and development principles and practices. (AIA Canon VI, E.S. 6.1-6.3). The National Society of Professional Engineers also requires its engineers to adhere to the principles of sustainable development. The AIA Form B101-2007 has attempted to provide limited guidance within the contract, requiring that the architect discuss the feasibility of incorporating environmentally responsible design with the owner. (§3.2.3) While the professional societies are embracing the green movement, they have not yet caught up to the times in providing the framework to handle the potential claims.

Managing Professional Liability Risks

The AIA forms, and most other traditional construction contracts, leave open a host of risks for A+E professionals when it comes to green building. Communication between the architect and the owner to manage expectations and determine the key green objectives is crucial, and a detailed scope of services pertaining to the green or LEED requirements must be set forth. Be careful not to guarantee achieving a specific LEED goal but rather discuss aspirations pointing out the participation of third

parties required to achieve certification. Frank and frequent discussions about the project’s budget and schedule are a necessity to successfully accommodate the owner’s green expectations. As the project evolves, the integration of green elements should be regularly discussed with the owner, and any changes must be thoroughly confirmed and documented in order to manage the aspirations and expectations.

Traditional project relationships must also be examined. It is imperative that all parties involved consider the green aspects of the project in their respective role. An integrated design process with the design and construction teams working together from the start will keep the costs in line. Costs for green or LEED projects usually only exceed those of traditional construction when the green elements are added piecemeal during the life of the project, instead of being considered integral to the project as a whole. Practically Speaking, the design professional must work closely with the contractor or construction manager to ensure that the product selections are consistent with the green objectives of the owner. This imposes on the traditional allocation of means and methods belonging solely to the contractor and must be considered in the contract.

Open communication with all project participants is essential — but is not enough to eliminate professional liability risks. The contract must consider and address the many issues associated with green building and LEED certification. Specifically, waiver or allocation for risk for consequential damages as it relates to tax credits or incentives, higher rents and/or tenant expectations, anticipation of lower energy costs that may or may not be realized, maintenance costs, and failure to meet LEED or other green certifications must be addressed. Has risk been allocated for new and unproven systems or technologies and warranties on green products? The lead times associated with investigating, testing and/or obtaining the green products must also be weighed and allocations of risk assigned. The delivery and integration of materials between subcontractors must also be considered. Product substitutions must be carefully considered — confirming that the substitutions meet the standards, the products work together and whether the combination or addition of a product would jeopardize consideration for LEED points must be taken into account. Insurance coverage must be

carefully considered, including A/E E&O exclusions as related to the green and LEED components. The contract must also allocate responsibility for the post occupancy review process for collecting data, measuring performance and reporting to the USGBC, as well as maintaining the LEED performance goals if the project is LEED certified.

As the industry standards evolve and the participants in the green construction industry get more projects under their belt, green building will become more standardized. In the interim, education, communication, risk allocation and documentation will help keep design professionals

from falling into the green hornet's nest.

MEGHANA. DOURIS, ESQ., LEED GREEN ASSOCIATE, PRACTICES AT OLES MORRISON RINKER & BAKER LLP, A SEATTLE-BASED LAW FIRM SPECIALIZING IN CONSTRUCTION, GOVERNMENT CONTRACTS AND PUBLIC PROCUREMENT, AS AN ASSOCIATE ATTORNEY. HER LEGAL EXPERTISE INCLUDES HANDLING CASES THAT INVOLVE PROFESSIONAL MALPRACTICE, DIFFERING SITE CONDITIONS, DELAY AND IMPACT CLAIMS, AS WELL AS IN-DEPTH GEOTECHNICAL ENGINEERING CONCERNS. SHE CAN BE CONTACTED AT 206-623-3427 OR DOURIS@OLES.COM.

Notice To Membership – Working Group Activity

CVC Members:

The following email message was sent to ASHRAE CVC as a group whose members may have interest in the below mentioned working group activities. Interested members are encouraged to participate as individual professionals and not as official representatives of ASHRAE.

The Vermont Comprehensive Energy Plan which was released a few weeks ago contains a provision under Thermal Energy to include residential geothermal installations under PACE (Property Assessed Clean Energy) loan funding. Portions of the PACE loan funding are to be administered by Efficiency Vermont (EVT). Amy Patenaude of EVT has shared some draft language to the REV (Renewable Energy Vermont) geothermal working group which would recommend having these installations installed by IGSHPA Accredited Installers (AI) and designed by IGSPHA Certified Geo Designers (CGD). Fortunately there are 54 AIs in Vermont, but no CGDs. The Comprehensive Energy Plan also calls to "Create Vermont-specific GSHP installation standards and best practices through a stakeholder process." Jim Ashley has suggested a stakeholder group deal with both the PACE residential project requirements and at least a simple residential geothermal installation standard in the next few months. Efficiency Vermont suggests this work be undertaken during the first quarter of this year and the expectation that the REV geothermal working group will take the lead, but that we need other stakeholders.

It has been recommended to hold the first meeting in early February in either the Burlington or Colchester area. The organizers will try to provide for telephone participation, and to try and create draft discussion documents before the first meeting. If you would like to participate, and/or can recommend stakeholders you think should be at the table? Let Jim Ashley know.

It is important to realize that whatever is developed will give direction to Vermont, but also the on-going tasks for the REV committee to work on and possible directions for NEGPA and the VTC certificate training program.

Anyone interested in participating in the stakeholder group, please contact Jim Ashley at: jashley@vermontgeo.com

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-

2011-2012 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	800	115
Student Activities	500	470
Technology Transfer	850	450
Research & Promotion	1050	1015
History	300	0
Chapter Operations	600	345
Chapter TOTAL	4100	2395

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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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