



Airways

Hamilton Chapter No. 037

American Society of Heating, Refrigeration and Air Conditioning Engineers

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Tuesday September 19, 2000

Hydronic System Design

The commercial hydronic market sector has seen a lot of changes over the past twenty years especially in the types of equipment utilized in designs today. The one thing that has remained the same is the need to provide efficient, low maintenance systems that provide the longevity that end users require and demand.

Tonight's topic is designed to provide you with the fundamentals of what a well designed commercial hydronic heating system is made of and to detail the interaction of the components which comprise a typical commercial heating system; including piping, pumps, venting, controls and equipment. System operational efficiency is a result of the installed hydronic system's ability to meet load fluctuations and demand changes that are placed on a building and in order for the designer to provide this we must start at the design stage.

The ability to provide a system that is both economically feasible and operationally efficient will ensure that the end user will receive the type of system that will meet their demands and, at the same time, meet the demands of the market.

Tonight's Speaker

Van Culberson is a graduate of the Cleveland Institute of Technology with an Environmental Science degree. He has worked for a mechanical contractor providing HVAC system and controls design services and sales. In 1980 Van joined Honeywell Corporation as a Sales Representative for commercial HVAC and Flame Safeguard Control Systems. In 1984 Van joined Honeywell's product marketing group as a Product Manager for Environmental Controls and Systems and was responsible for products such as the W973 Singlezone Control, the W7100 VAV Control, the W7080 Multizone controller and the T7300 programmable thermostat. In 1987 Van moved into Honeywell's OEM sales force and was responsible for accounts such as Carrier and the Lochinvar Corporation. In 1990 Van left Honeywell to work for the Carrier Corporation as the Director of



Pinetree Restaurant


395 Centennial Parkway North (at QEW), Hamilton

5:00 PM Social Hour & Technical Session

6:00 PM Dinner & Business Meeting

7:00 PM Technical Program / Speaker Presentation

Chapter Members \$ 20.00 • Guests \$ 25.00 • Students \$ 15.00



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Marketing for Carrier's Comfort Network Controls (CCN). While at Carrier, Van was responsible for worldwide product development and marketing for Carrier's factory and field mounted controllers and Building Monitoring Systems. In 1993 Van left Carrier and was hired by the Lochinvar Corporation as the Regional Manager for the Midwestern Region. In 1996 Van was promoted to the position of International Sales Manager and is currently responsible for all Lochinvar sales and marketing support outside the United States, focusing on the Canadian, European, Middle Eastern and Asian markets.

Message From The President

Once again September has come around much too quickly, leaving summer behind before we even knew it. And now we are all thinking about school, fall activities, and hopefully, the upcoming ASHRAE year.

The Hamilton Chapter have lined up some exciting programs for the upcoming year. You can review these in our Chapter Program Activities located in this edition of Airways.

One of the highlights of this year's program is the October visit of ASHRAE International President, James Wolf. Mr. Wolf will visit our Chapter on October 10, 2000 and will be giving us an update on ASHRAE worldwide. He will also be giving a talk on the future on HFCs and HCFCs. Watch for further details on this in the October issue of Airways. In the meantime, please mark this on your calendars as a "must attend" event at the Hamilton ASHRAE Chapter October meeting.

I would also like to briefly mention some of the benefits of being a Hamilton Chapter Member. Many of you are ASHRAE members, but not Hamilton Chapter members. For an additional \$65.00 per year, the Hamilton Chapter offers a library, the Airways Newsletter, a mentoring program, a chapter roster, and a meal discount. A more detailed description of these benefits can be found in this newsletter. Please consider this. I am sure you will not regret it.

Many of you may not be aware that the Hamilton Chapter has a website. The website address is "www.vaxxine.com/ashrae" Please go on line to find more information about the Hamilton Chapter and our activities. There is also a direct link from the main ASHRAE website (www.ashrae.com) and I encourage you to access this website as well. You will find it very informative.

I am looking forward to meeting all of you, new members and old, at the upcoming September meeting. In the meantime, if I can answer any questions or if you have any comments, please feel free to contact me by telephone, fax or email.

George Robb, Hamilton Chapter President 00/01

**ASHRAE Hamilton Chapter
Wishes To Extend A Special Thanks
To All The Corporate Sponsors
Of Our Annual Golf Tournament
Last June At Whirlpool Golf Course
In Niagara Falls**

Comstock Canada

Johnson Controls

Niagara Plumbing Supply

Penn Ventilator

Weil McLain

Final Research Update for 1999-2000 Campaign

The Hamilton Chapter Research Campaign is providing funds to the society and we want to recognize those Individuals and Companies who have invested since November.

Individuals: Edward J. Cazzola
Christopher J. Van Gerwen

Companies: A.T.M.S Limited
Delhi Industries
Chicago Blower Sales
14th Hole Annual Whirlpool Golf Tournament
Honeywell Limited (Hamilton Branch)
Comstock Canada
Stantec Consulting (Kitchener)
Penn Ventilator Canada Ltd.

Your friends have invested an additional \$2,400 since last May. This is your industry and please consider your future by investing in ASHRAE Research Canada.

For the 1999-2000 fiscal year the Hamilton Chapter contributed \$8,878.00 to the Society Fund. Well done. Thank you .

John B. Pollock, Hamilton Chapter Research Co-Chair

P.S. We will be contacting you for our 2000-2001 Campaign.

ASHRAE Hamilton Chapter Scholarship

Last year, the Executive of the Hamilton Chapter created a Scholarship Fund to begin in September, 2000. This Scholarship is for the children or grandchildren of Hamilton Chapter members who are newly enrolled in a post secondary education (university or college) program related to engineering.

A Scholarship will be made available for one applicant newly enrolled in a university program and one applicant newly enrolled in a community college.

The Scholarship is valued at \$617.71. Anyone interested in applying should submit details to

George Robb, Hamilton Chapter President by the end of October, 2000.

George Robb, Hamilton Chapter President 00/01

Hamilton Chapter Benefits

Members' Library - We have a number of publications available to chapter members for their use as required.

Airways Newsletter by Fax or Mail - Chapter Members receive the full newsletter about a week before our monthly meetings. A condensed version of Airways is posted at our web site.

Mentoring Program - We offer a program in which experienced members volunteer as mentors to young professionals in our field.

Chapter Roster - Chapter members receive a booklet containing the names, addresses, phone numbers etc. of all ASHRAE members in our area.

Meal Discounts - Members pay \$ 5.00 less for Chapter meeting meals. Greater savings are available to those who prepay their meals for the entire year.

Hamilton Chapter Library

The following titles are among the many available for use by all Hamilton Chapter members:

Basics

Cold Air Distribution System Design Guide, 1996, 179 pages

Cogeneration Design Guide, 1993, 248 pages

Practical Guide to Noise and Vibration Control for HVAC Systems, 1991, 177 pages

Design of Smoke Management Systems, 1992, 223 pages

Papers

1995 Laboratory HVAC - 20 papers

Reference

Duct Fitting Loss Coefficient Tables

Standards

1994 15-1994
Safety Code for Mechanical Refrigeration.

1992 34-1992
Number Designation and Safety Classification of Refrigerants

1992 55-1992
Thermal Environmental Conditions for Human Occupancy

1995 100-1995
Energy Conservation in Existing Buildings

1988 111-1988
Practices for Measurement, Testing, Adjusting and Balancing..

1995 135-1995
BACnet - A Data Communication Protocol for Building Automation

1996 Guideline 1-1996
The HVAC Commissioning Process

Computerized

1997 ASHRAE Handbook CD - 1995 and 1996 Handbooks on one CD

1997 ASHRAE Transactions CD - Volume 103, Part 1

1998 ASHRAE Handbook CD - 1995, 1996 and 1997 (Fundamentals) Handbooks on CD

Message From The Editor

Please note that this month's meeting is the third Tuesday of the month instead of the second.

Last year we started a popular feature in Airways called "Tech Talk" - a series of short, to-the-point technical articles written by our members. If you, or someone you know would like to share his or her expertise in this way please contact Dave Stacey, our programs chair

Brian Beninger, Airways Editor, Webmaster

Upcoming Events of Interest

Green Building Challenge 2000

Fall, 2000, Maastricht, Holland

The Canadian Team is soliciting entrants from design teams interested in submitting their environmentally advanced new building to the above competition. Complete details can be found by visiting the website: <http://greenbuilding.ca/gbc2k/gbc-start.htm>

CBIP TRAINING SESSION

Commercial Building Incentive Program and the EE4.CBIP Software

You are invited to attend Natural Resources Canada's upcoming CBIP training sessions. The objective of CBIP is to encourage energy-efficient design practices and to bring about lasting changes in the Canadian building design and construction industry. CBIP offers financial incentives up to \$80,000 for the incorporation of energy efficiency features in new commercial/institutional building designs. Participants will learn to use the EE4.CBIP software to evaluate whether designs meets program requirements. The full-day sessions are free of charge and lunch will be provided. For more information on CBIP, please visit the website at <http://cbip.nrcan.gc.ca>

Training sessions are as follows:

Kingston Union Gas	Sept 21, 2000
Hamilton Union Gas	Oct 24, 2000
Chatham Union Gas	Oct 25, 2000

To register, contact Steve Crighton, Bronson Consulting Group
Phone: 506-652-1218, Fax: 506-652-1218 (phone first) or e-mail shc@nbnet.nb.ca

***Increase Your Professional Knowledge
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***Attend ASHRAE's
Professional Development Seminars***

Air System Design and Retrofit

September 25-26, 2000

Water System Design

September 27-28, 2000

***in
Toronto, Ontario***

For complete program and registration information visit the

ASHRAE Web Site: www.ashrae.org
or contact **ASHRAE Customer Service**
1.800.527.4723, Fax: 404.321.5478

1999 - 2000 Meeting Schedule

This year's meeting schedule is summarised below. Except for some special events, all meetings will be held at the Pinetree Restaurant, 395 Centennial Parkway North (at the QEW), Hamilton. During the 5:00 PM to 6:00 PM Social Hour, a half hour "technical session" on the basics of a particular subject relating to our industry is presented. If a session sounds interesting to you, feel free to attend. Presentations are made by our members and this forum is open to all who wish to share his or her expertise. New products and/or services are presented informally via a "table top demonstration". After dinner, the main topic of the evening is presented by a "feature speaker". If you are interested in presenting a technical session, please contact George Robb. If you want to book the table top space to promote your product or service, or if you have a suggestion for a feature subject and/or speaker, contact John Pollock, George Robb, or any other member of the executive. There is a charge of \$ 75.00 for "Table Top" demonstration space, and this includes a business card ad for one month.

2000 – 2001 ASHRAE HAMILTON CHAPTER PROGRAM ACTIVITY				
Month/Date	Theme	Tech Session 5:00 – 6:00 p.m.	Table Top Presentation	Guest Speaker/Main Topic
Sept. 19, 2000	Membership	NOx Level Reductions	Siemens Building Technologies	Hydronic System Design (Van Culberson, Lochinvar Corporation)
Oct. 10, 2000	TEGA	Visit of James Wolf, President, ASHRAE		
Nov. 14, 2000	Student	Ship Tour – Port Weller		
Dec. 9, 2000	Membership	Hamilton – Dundurn Castle – Family Event – 1:30p.m. to 4:30p.m.		
Jan. 9, 2001	Research	New Technology in Cartridge Filters	Envirotech	IAQ (TSI)
Feb.13, 2001	TEGA	TBA		CFD on Air Movement ()
Mar. 13, 2001	Refrigeration	Refrigeration Basics	Copeland Alco	Supermarket Refrigeration (Paul Newlands)
Apr. 10, 2001	TEGA	Retrofitting old Chimneys		Chimney Vents
May. 8, 2001	Student	Westcast Industries		
June 13, 2001	Membership/ Research	Annual Golf Tournament – Whirlpool Rapids		
All meetings are at the Pinetree Restaurant, 395 Centennial Parkway North (at QEW), Hamilton, unless noted otherwise.				

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