



Airways

Hamilton Chapter No. 037

<http://www.vaxxine.com/ashrae/>

American Society of Heating, Refrigeration and Air Conditioning Engineers

Volume 46, No. 8

Our 46th Year

April 2005

President

William McCartney
Phone (905)822-2430
w.mccartney@
isothermengineering.com

Secretary

George Robb, P. Eng.
Phone (519) 885-2858
gjirobb@golden.net

Treasurer

Wilfred Laman, P. Eng.
Phone (905) 673-7735
wlaman@quiet-aire.com

Research Chair

Ralph Kosir, P. Eng.
Phone (905) 309-8811
ralph@efisystemsgroup.ca

Membership Chair

David Hills
Phone (905) 687-9778
dhills@tmpniagara.com

Student Activities Chair & Historian

George Menzies, P. Eng.
Phone (905) 388-1313
gmenzies@allstream.net

C.T.T.C. Chair & Programs Chair

Nathan Martin
Phone (905) 681-3901
nathanm@odellassoc.com

C.T.T.C. Vice Chair & T.E.G.A.

Chris McClelland
Phone (905) 572-1111

hamilton@engineeredair.com

Social Chair

David Rasmussen
Phone (905)575-5542
drasmussen
@delhi-industries.com

Webmaster

Brian Beninger, P. Eng.
Phone (905) 563-3221
brian@beninger.ca

Airways Editor

Allan Antcliffe, P. Eng.
Phone (519) 756-5760
allan@madok.com

Monday, April 4, 2005 @ 11:30 a.m.
(not the normal 2nd Tuesday or time)

HVAC Equipment & MERs for Clean Rooms Serving Pharmaceutical/Biotech Facilities

ASHRAE Distinguished Lecturer

Manuel del Valle, P. E.
Director HVAC Design
Fluor Daniel
Greenville, South Carolina

Manuel A. del Valle has 37 years of experience in HVAC design, specializing in pharmaceutical and biotech facilities in the United States and Puerto Rico. Manuel earned his Bachelor of Science in Mechanical Engineering from the College of Engineering at the University of Puerto Rico, Mayaguez Campus in 1964. He joined Daniel Construction Company International in 1969 as Field Mechanical Engineer in Puerto Rico. In 1971 Manuel became Manager HVAC Design at Scovil Engineers. Manuel came to Fluor Daniel Greenville in 1987 as Lead HVAC Engineer and served later as Manager HVAC in San Francisco, California. He is currently Director of HVAC Design in Fluor's Greenville office.

Manuel is a Registered Professional Engineer in Puerto Rico, South and North Carolina, Pennsylvania, New Mexico, California, and Colorado. He is a member of ASHRAE and the International Society for Pharmaceutical Engineering. He is a frequent speaker at conferences for associations such as ISPE, ASHRAE, Parenterals Drug Association, American Society of Mechanical Engineers, Barnett International and the Institute of International Research. He has published a number of articles in trade publications such as *Pharmaceutical Engineering*, *Biopharm*, *Heating, Piping, & Air Conditioning* and *CleanRooms Magazine*.

Royal Hamilton Yacht Club North End of McNab, On Hamilton Harbour

11:30 am – Social Gathering

12:00 noon – Lunch

1:00 pm – Feature Speaker

Lunch/Feature Speaker

Chapter Members - \$30.00 • Guests - \$40.00 • Students - \$15.00 • Meal Plan - \$135.00

Feature Speaker (without Lunch)

\$15.00



Airways – ASHRAE Hamilton Chapter – April 2005

Manuel's lecture topics include:

Cleanrooms For Pharm/Bio Facilities

- (a) Defines "Cleanrooms" per ISO-14644-1
- (b) Breaks down the definition and explains its components, such as exterior and interior sources of contamination
- (c) Provides examples on how to remove particulate from cleanrooms
- (d) Provides definition of terms typically used in cleanrooms for Pharm/Bio Facilities

HVAC Systems for Pharm/Bio Facilities

- (a) Shows typical flow diagrams of HVAC systems for class 100 and 10,000 (and less clean) Cleanrooms for Pharm/Bio Facilities
- (b) Describes components of systems, such as AHUs, filters, and air distribution devices.
- (c) Provides examples of layouts of MERs and catwalks to access reheat coils, dampers, and other accessories

Air Handling Units for Pharm/Bio Facilities

- (a) Describes why special type of AHUs are required for Pharm/Bio Facilities, especially for Clean Areas
- (b) Details special construction considerations for each AHU component (fans, coils, filters, etc.)
- (c) Describes best locations for Pharm/Bio AHUs in the facilities and duct mains routing inside AHU mechanical rooms



EFI SYSTEMS GROUP
14 Ontario Street, 2nd Floor
Grimsby, Ontario, L3M 3G9
Canada

Ralph J. Kosir, P. Eng.
Partner

905 309-8811
Fax: 905 309-8813
Cell: 905 687-6411

www.efisystemsgroup.com
e-mail: ralph@efisystemsgroup.ca

March Meeting Recap

With a bit of scrambling to overcome last minute changes, the March meeting ended up being a busy and informative night.

George Menzies, P. Eng. provided an enlightening Technical Session on the topic of OEL's (Occupational Exposure Limits) – comparing welding and brazing processes common in our industry.

Our special guest for the evening – Mr. Guy Perreault, P. Eng., CTTC RVC, Region II – spoke about ASHRAE and encouraged audience members to consider suitable applications for various technical awards awarded by the Society for exceptional design projects. He noted that Montreal Chapter members have been the recipients of several of these awards.

George Robb and Dave Rasmussen then reminded everyone of the upcoming Toyota tour and golf tournament.

After a great dinner, our Feature Speaker, Duffy O'Craven of Quinda Inc. spoke to us about the workings of BACnet.

Allan Antcliffe, P. Eng., Airways Editor 04/05



O'DELL ASSOCIATES INC.
Nathan Martin, P.Eng.
Sales and Application Engineer

Tel: 905-681-3901
Fax: 905-681-0688
Cell: 519-570-5992
Email: info@odellassoc.com

1038 Cooke Blvd., Unit 3
Burlington, Ontario
L7T 4A8

Computer Corner Windows Control Keys

About twenty years ago, the person/computer interface changed forever with the introduction of the mouse. The mouse, as an integral part of the graphical user interface (GUI) was an ingenious and versatile invention, however today we may be over using it.

This month's column is dedicated to a few standard Windows key commands that can make your computing life easier and more efficient. While there are many such commands which save time over their mouse equivalents, I'll just talk about my three favorites: Ctl-c, Ctl-v, Ctl-x. These three commands are invoked by holding down the Control key (sometimes labeled "Ctrl" or "Ctl") and pressing the associated letter key at the same time. For example, "Ctl-c" means while holding the "Ctrl" key, press the "c" key.

Ctl-c is the Windows standard "cut" command which cuts the selected item and pastes it to the Windows Clipboard (a temporary Windows storage area for snippets of information). This can be anything including a bit of text in a document, a cell in a spread sheet, a

graphic in a document, a block in an AutoCAD drawing - basically anything you can highlight or select. It is an easy command to remember because "cut" starts with "c".

Ctl-v is the "paste" command - the companion of the "cut" command. It pastes the object currently stored on the Windows clipboard to wherever your cursor happens to be. Why isn't "paste" Ctl-p? Probably because the programmers developing the Windows print capabilities at the time grabbed Ctl-p for the "print" command first. However it is still easy to remember because the letter "v" (paste) is beside the letter "c" (cut).

Ctl-x is the "delete" command. It is similar to the "cut" command in that the selected item is removed from your document however it is not saved to the clipboard. I remember "x" means delete because many programs use a graphic type of "X" to mean delete.

You can still use the new mouse way to cut, paste and delete: pull down menus or right button context menus, but try going back to the old familiar keyboard for these commands. I bet you will notice an increase in productivity.

If you want to learn more about Windows control keys, check the internet. As a start, there is a good article at <http://www.pcworld.com/howto/article/0,aid,109712,00.asp>


I use these three key commands all the time in the programs I use most. While they have boosted my computer productivity a little, they are nothing compared to the all time best computer productivity enhancement idea ever, bar none (really) ...

I'll tell you next month.

Brian Beninger, P.Eng., Webmaster 04/05

J. Allan Antcliffe P. Eng
President

50 Morrell Street,
Brantford, ON N3T 4J5
(519) 756-5760
(519) 756-5768 FAX
allan@madok.com
www.madok.com



Heating/Cooling Coils & Corrosion Protection

ASHRAE Hamilton Chapter Golf Tournament Update

Our annual Golf Tournament is scheduled for Wednesday, June 8, 2005 at the Legends on the Niagara – Battlefield course in Niagara Falls.

The names of foursomes continue to arrive – however, the cheques do not! Please secure your spot with a cheque.

The entry form is once again included so, if you know who the other members of your group are, please complete it and send it to me (with your cheque) ASAP.

The golf notice will appear in the upcoming ASHRAE Toronto and London Chapter newsletters and I have already had inquiries from these two chapters about attending.



I can promise the 18th hole will not look like this on June 8th!

David Rasmussen, Social Chair 04/05



Quiet-Aire Manufacturing Inc.

W.F.(WILFRED) LAMAN, P.Eng.
General Sales Manager

2367 Anson Drive
Mississauga, ON L5S 1G1
p: (905) 673-7735 ext. 228
f: (905) 673-0567
e: wlaman@quiet-aire.com

*Manufacturer of Custom and
Standard Air Handling Units*

ASHRAE Hamilton Chapter Toyota Factory Tour

Remember – our tour of Toyota Motor Manufacturing Canada (Cambridge facility) is scheduled for Wednesday, May 4, 2005 at 12:30 p.m. followed by lunch at Moose Winooski's. This popular tour is limited to 48 people so be sure to sign up early to ensure that you are able to attend. A sign-up sheet with further details is included with this Airways.

Allan Antcliffe, P. Eng., Airways Editor 04/05

Upcoming Events of Interest

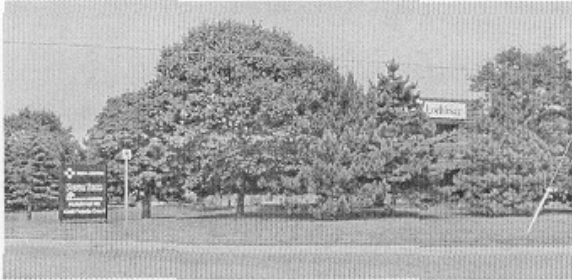
ASHRAE Toronto Chapter Spring Seminar & Exhibition

The ASHRAE Toronto Chapter will hold its spring seminar on **Building Heating and Cooling System Solutions** on Wednesday, May 18 at the Sheraton Parkway Hotel in Richmond Hill. Speakers will focus on system options, misapplications and pitfalls; variable frequency drive applications; non-traditional ventilation; life cycle cost analysis and building code updates.

For registration, contact Wendy Joslin at (905) 602-4714 or e-mail her at wjoslin@hrai.ca



AQUA TECH
SALES & MARKETING INC.
4390 Paletta Court, Burlington, Ontario Canada L7L 5R2
Phone (905) 631-5815 / Fax (905) 637-8655
www.aquatech.ws



Your Source for High Quality Engineered Products



Lochinvar
High Efficiency Water Heaters And Boilers



WEIL-McLAIN
CANADA SALES INC.



WILSON & COUSINS
INTERIOR FIRE PROTECTION



ZURN
ZURN INDUSTRIES LIMITED



O'DELL ASSOCIATES INC.

Jack M. Fitzmaurice, P.Eng.

Tel: 905-681-3901
Fax: 905-681-0688
Cell: 905-546-6600
Email: info@odellassoc.com

1038 Cooke Blvd., Unit 3
Burlington, Ontario
L7T 4A8

Message from the Editor

Don't forget to sign up and get your money in to Dave Rasmussen for the June 8th golf tournament. Dave gave you a "winter view" of the 18th hole – here's a slightly different view of the same hole in more "golfer friendly" weather. Visit www.niagaralegends.com for more photos.



Allan Antcliffe, P. Eng., Airways Editor 04/05

2004 – 2005 Meeting Schedule

This year's meeting schedule is summarized below. Except for some special events, all meetings will be held at the **Royal Hamilton Yacht Club, at the north end of McNab St. on the Hamilton Harbour** (If you need a map, visit our web site). During the 5:00 pm to 6:00 pm Social Hour, a half hour "technical session" is presented on the basics of a particular subject relating to our industry. If the session sounds interesting to you, feel free to attend. These sessions are presented by our members and are open to any one wishing 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 the "feature speaker". If you are interested in presenting a technical session, booking table top space to promote your product and/or service or, if you have a suggestion for a feature subject and/or speaker, please contact Nathan Martin (Programs Chair). There is a charge of \$75.00 for "table top demonstration" space and this includes a business card ad for two months.

ASHRAE Hamilton Chapter Program Activity				
Date	Theme	Technical Session 5:00 pm – 6:00 pm	Table Top Demonstration	Feature Speaker
April 4, 2005 (Monday @ 11:30 a.m.)		None	None	ASHRAE Distinguished Lecturer Manuel del Valle, P. E. Fluor Daniel HVAC Equipment & MERs for Clean Rooms Serving Pharm/Bio Facilities
May 4, 2005 (Wednesday)	Students	Tour of Toyota Motor Manufacturing Canada (Cambridge facility) Tour at 12:30 p.m. followed by lunch at Moose Winooski's (Sportsworld Dr., Kitchener)		
June 8, 2005 (Wednesday)	Social	Annual Golf Tournament <u>New Location - Legends on the Niagara (Battlefield) - Niagara Falls</u>		
September 13, 2005		To Be Determined		

Airways Editor:

Allan Antcliffe, P. Eng.
Madok Manufacturing Limited
50 Morrell Street, Brantford, ON N3T 4J5
Phone: (519) 756-5760
Fax: (519) 756-5768
E-mail: allan@madok.com

Hamilton Chapter Mailing Address:

ASHRAE Hamilton Chapter
59 Abbey Close
Ancaster, ON L9G 4K8

ASHRAE Hamilton Chapter
<http://www.vaxxine.com/ashrae/>



ASHRAE HAMILTON CHAPTER GOLF TOURNAMENT

DATE: WEDNESDAY JUNE 8, 2005

LOCATION: LEGENDS ON NIAGARA, NIAGARA FALLS, ON

COST: \$150.00 PER PERSON

INCLUDES: 18 HOLES AT THE SITE OF THE 2004 LPGA
ONE POWER CART PER TWO GOLFERS
SUPPER
FREE ACCESS TO DRIVING RANGE

PLEASE COMPLETE THE FOLLOWING AND FAX OR E-MAIL TO DAVID RASMUSSEN
RESTRICTED TO THE FIRST 120 PAID GOLFERS
(CHEQUES MUST BE RECEIVED BY MAY 18TH)

PLAYER 1 _____ PLAYER 2 _____

PLAYER 3 _____ PLAYER 4 _____

FIRST TIME EVER – SHOTGUN START AT 1:00 P.M. SHARP

DESIGNATED CONTACT: _____

PHONE: _____ FAX: _____

E-MAIL: _____

- NEW SPONSOR – WE WOULD LIKE TO SPONSOR A HOLE @ \$125.
- PAST SPONSOR – WE WOULD LIKE TO SPONSOR A HOLE @ \$75.
- MY GROUP WILL BRING ____ DOOR PRIZE(S).

PLEASE SEND YOUR CHEQUE IN ADVANCE TO:

David Rasmussen
Delhi Industries Inc.
8-1300 Upper Ottawa Street,
Hamilton, Ontario, L8W 1M8
PHONE OR FAX: (905) 575-5542

Make cheques payable to:
ASHRAE Hamilton Chapter

E MAIL: drasmussen@delhi-industries.com



ASHRAE HAMILTON CHAPTER TOYOTA FACTORY TOUR

DATE: Wednesday, May 4, 2005

TIME: Tour starts at 12:30 PM. Toyota requests that you be there no sooner than 10 minutes before the start of the Tour. Tour is approximately 1 hour and 30 minutes.

LOCATION: Toyota Motor Manufacturing Canada Inc.
1055 Fountain Street North, Cambridge, ON
Gate 2 (Proceed to Visitors Parking and then to Visitors Centre)

COST: Tour is free. Lunch is off the menu at Moose Winooski's on Sportsworld Drive (just around the corner from Toyota)

TOYOTA REQUESTS: The following are **NOT PERMITTED** in the plant: shorts, skirts, tear away pants, windsuits, cameras, smoking or children under the age of 8. Because of occasional welding sparks, all visitors are strictly requested to wear natural fibre clothing (100% cotton, wool, etc.) and long pants or slacks for both men and women. For safety reasons, wheelchairs or walkers cannot be accommodated.

NOTE: Attendance is limited to 48 people.

If you will be attending this event, please complete the following and e-mail, fax or telephone the information to George Robb before Wednesday, April 27, 2005.

NAME: _____ **COMPANY:** _____

LUNCH AT MOOSE WINOOSKI'S: Yes _____ No _____

George Robb, P. Eng.
Robb Engineering Ltd.
452 Ainsworth Court
Waterloo, ON
N2T 1H5

Telephone: 519-885-2858
Fax: 519-885-0441
E-mail: gjrobb@golden.net