Program

TECHNICAL TOUR

CORE ENERGY
Tour of co-generation plant that supplies steam to several downtown buildings and electrical power into London Hydro’s network.

(refer to map and notice within this newsletter)

Meeting - Monday Mar 27/2006
5:30 TOUR START
CORE ENERGY

>>> 301 Colborne Street, London

(just south of railway tracks)

London Chapter Members = $25.00
Students = $10.00
Others = $35.00

Dinner to Follow at 6:45pm
The Marienbad Restaurant
122 Carling Street, London

If you plan on attending, and are not contacted by the telephone committee, please advise:
Scott Turner (ph: 652-1977  scott@somersep.com)
President’s Message

Our turn out for the February meeting was a pleasant surprise we were excepting a much smaller number based on your phone and email poll prior to the meeting and we ended up with approximately 10 more people attending. This result was great but leaves us with the questions as to how our numbers could be so far off, if you are not getting a phone call or email prior to the meeting asking if you will be attending please let me know.

I would like to extend a big thank-you to two of our local chapter members, Scott Edmunds and Eric Shaw who stepped up to the plate when we were unable to get a speaker from TSSA for our February meeting on the Gas Code and they provided a great presentation. Thank-you gentlemen. I would also like to thank Derek Vakaras our Research Promotion chair for his power point presentation on the reason to donate to ASHRAE Research.

This month’s meeting is our annual technical tour. We will be touring the local Core Energy plant, which provides many of London’s downtown area buildings with heating and cooling. It should prove to be an interesting tour.

I look forward to seeing you at the meeting.

Joe Claessens
London Canada Chapter President

February Meeting Summary

At the February meeting, London Chapter ASHRAE members Eric Shaw and Scott Edmunds explained that in Ontario the new Natural Gas and Propane Installation Code (CAN/CSA-B149.1-05) can into effect on January 1/2006. The presentation went thru the major changes to the gas code. Scott and Eric also advised that members should be sure to also obtain the Ontario amendments that have been issued by TSSA.

Derek Vakaras, Research Promotion Chair for the ASHRAE London Chapter did a short presentation on the program and benefits of contributing to ASHRAE Research. Any individual or corporation that has a cheque, please contact Derek at 679-8660 or derek.vakaras@chorley.com and he will forward it along with the appropriate paperwork.
April 24/2006 Meeting

The London ASHRAE Chapter has arranged to have ASHRAE DISTINGUISHED LECTURER and ASHRAE PAST PRESIDENT

WILLIAM COAD, PE
McClure Engineering Associates

visit and speak on the *Ethics and the Economics of Energy Conservation*. Please refer to the attached notice.

>>>>> BE SURE TO TELL YOUR COLLEGES ABOUT <<<<<
>>>>> THIS SPECIAL EVENT <<<<<

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Other Events

CMX.CIPHEX • www.cmxciphexshow.com
Metro Toronto Convention Centre, North Building
March 23, 24, 25/2006

ASHRAE Sustainability and the Building Environment Satellite Broadcast and Webcast • www.ashrae.org
April 19, 2006

ASHRAE 2006 Annual Meeting • www.ashrae.org/quebecity
Quebec City • June 24-28, 2006

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ASHRAE LONDON GOLF TOURNAMENT

Arrangements for the annual golf tournament are being prepared and once completed a notice will be posted. Look for more information in the next newsletter.

The ASHRAE London Chapter would like to thank HTS ENGINEERING for arranging this year’s golf sponsor:

*Aaon Heating and Cooling Products*

Performance oriented products that perform beyond expectations and provide life-cycle dependability at a reasonable first cost.
ASHRAE Grants: Students Study Miniature Cooling Devices

A miniaturized cooling system being studied through ASHRAE research could make it possible to safely transport biological tissue and organs to remote areas without electricity.

This proposed novel cooling system also could have an immense impact in the medical field for patients suffering from diseases such as multiple sclerosis, whose mobility is impaired due to their sensitivity to temperature changes.

Research of the thermally activated miniaturized cooling system is being funded by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).

Eleven students will receive a total of $103,000 through ASHRAE’s grants-in-aid program, which is designed to encourage students to continue their education in preparation for service in the HVAC&R industry.

The recipients were chosen by the Society’s Research Administration Committee at ASHRAE’s 2006 Winter Meeting. The grants are awarded to full-time graduate students of ASHRAE-related technologies.

“These mass- producible, modular and portable cooling systems are expected to offer revolutionary means of cooling at the small scale under environmentally challenging conditions,” said researcher Matthew Determan, Georgia Institute of Technology, Atlanta.

It would consist of a microchannel-based compact absorption heat pump for use as a miniaturized heat pump. The system could be used for hazardous duty vehicular cooling, electronic control units and personal cooling systems for chemical response teams.

Other recipients of ASHRAE grants-in-aid are:
- Vladimir Vukovic, The Pennsylvania State University, University Park, Pa., Real-Time Determination of Indoor Pollutant Source Location.
- Lalit Kumar Bohra, Georgia Institute of Technology, Atlanta, Fundamental Understanding of Heat and Mass Transfer in the Ammonia-Water Absorber.
- Matthew Rooke, The Pennsylvania State University, University Park, Pa., Demand Controlled Ventilation for Multiple Space Systems with Independent Room and Occupant Ventilation Requirements.
- Margaret Mathison, Purdue University, Lafayette, Ind., Modeling and Testing of a Twin Rotary Compressor.
- Andreas Nicolai, Syracuse University, Syracuse, N.Y., Numerical Simulation of Coupled Heat, Moisture and Salt Transport and Phase Transition Processes with Respect to Durability of Building Materials and Components.
- Nandha Kumar Manoharan, University of Michigan-Dearborn, Mobile Ericsson Heat Pump.
- Sheryll Jerez, University of Illinois at Urbana-Champaign, Quantification of Ventilation Effectiveness for Air Quality Control in Plant and Animal Environments.
- Marcin Pazera, Syracuse University, Model Based Characterization of Construction Materials for Hygric Performance Evaluation. Pazera received the ASHRAE Life Member Club Award for having the highest rated grant-in-aid application. This grant is supported by a financial contribution from the club.
- Stefan Bertsch, Purdue University, Heat Pumps for Northern Climates.

ASHRAE, founded in 1894, is an international organization of 55,000 persons. Its sole objective is to advance through research, standards writing, publishing and continuing education the arts and sciences of heating, ventilation, air conditioning and refrigeration to serve the evolving needs of the public.

26 Projects Funded
Energy Recovery Methods Studied with ASHRAE Undergraduate Grants

While most residential air conditioners work on 100 percent return air to reduce energy costs, this creates a problem in lack of sufficient fresh air.

This is particularly true in hot humid climates like Miami or in northern regions with long winters.

Through a grant from ASHRAE, students at Florida International University in Miami are designing a new type of residential ventilator with enthalpy wheel heat recovery, which will minimize additional energy use while improving indoor air quality.

Twenty-six grants, totaling some $120,000, have been awarded by ASHRAE to colleges and universities worldwide to promote the study and teaching of HVAC&R, encouraging undergraduate students to pursue related careers. The grants are used to design and construct projects.

The residential ventilator project will provide an opportunity for students to develop their problem solving skills but also to practice energy conservation design.

Other ASHRAE grant recipients are:
- All India Shri Shivaji Memorial Society’s College of Engineering, Pune, India, build an experimental setup to understand the enhancement of condensation heat transfer using micro-fin tubes;
- Bradley University, Peoria, Ill., design an apparatus to test fans and diffusers;
- Cairo University, Cairo, heat exchanger performance educational test stand and heat exchanger design software;
• Georgia Institute of Technology, Atlanta, automated camera positioner for particle image velocimetry used in HVAC air distribution studies;
• Hofstra University, Hempstead, N.Y., design and build a multi-purpose heat exchanger apparatus;
• Illinois Institute of Technology, Chicago, pressurization and depressurization impact on stack effect in experimental study;
• London South Bank University, London, low energy pumpless refrigeration absorption cycle;
• Mapua Institute of Technology, Manila, basic refrigeration and air-conditioning system used for laboratory experiments and simple sensitivity analysis;
• National Chin-Yi Institute of Technology, Taiping, Taichung, Taiwan, design and construction of an HFC-407C machine cooler demonstrator in refrigeration lab;
• Purdue University, West Lafayette, Ind., heat transfer measurements in mini-channel cold plate evaporators;
• Purdue University Calumet, Hammond, Ind., thermoelectric refrigeration using nanofluid circulation heat exchangers;
• Rochester Institute of Technology, Rochester, N.Y., duct and fan design project;
• Southern Illinois University, Carbondale, development of a system for testing the performance of nanofluid flow and heat transfer in a heat exchanger;
• Tanta University, Tanta, Egypt, construction of an integrated hybrid vapor-compression desiccant dehumidification system;
• Texas A&M University, College Station, design and construction of bench-scale ground source heat pump testing laboratory unit;
• University of Georgia, Athens, energy audit of a university classroom laboratory building and evaluation of energy conservation measures;
• University of Hong Kong, multi-function testing unit for thermal comfort assessment;
• Tri-State University, Angola, Ind., design and construction of a fan duct system for use in the mechanical engineering laboratory;
• University of Calgary, design of a "biofouling-free" heat exchanger;
• University of Illinois at Urbana-Champaign, development of an HVAC system simulator for laboratory use;
• University of Kragujevac, Serbia and Montenegro, demonstrator of floor, radiator and domestic water heating from solar heated water by using heat pump;
• University of Portland, design and construction of a heat pump trainer for thermodynamics lab;
• University of Windsor, HVAC metered elbows: reducing losses and noise through the use of turning vanes;
• Western Kentucky University, Bowling Green, Ky., centrifugal pump test bed;
• Widener University, Chester, Pa., modification and improvement of a thermodynamic system for cooling and revised cycle air conditioning.

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Sustainability Focus of ASHRAE Satellite Broadcast

Registration opens today for ASHRAE’s satellite broadcast on sustainability and the building environment. Information about building sustainability principles, practices and emerging concepts will be presented in the free April 19, 2006, satellite broadcast and Webcast, Sustainability and the Building Environment. The program will take place from 1-4 p.m. EDT.

Registration opens today for satellite broadcast site coordinators and Webcast participants. Registration opens March 15 for satellite broadcast site participants. To register or for more information, visit www.ashrae.org/greenbuildingsbroadcast.

The speakers for the broadcast will provide guidance on how to practice sustainable building design. They are:
• Joe Van Belleghem, partner, Windmill Developments, Victoria, Canada, Green Buildings and Sustainable Communities in A Developer’s Perspective;
• Hal Levin, Fellow ASHRAE, research architect, Building Ecology Research Group, Santa Cruz, Calif., Sustainability: What Does It Mean and Why is It Important;
• Jean Lupinacci, director, ENERGY STAR commercial and industrial branch, Climate Protection Partnerships Division, U.S. Environmental Protection Agency, If It’s Not Energy Efficiency, It’s Not Sustainable: How to Ensure Top Energy Performance in Green Buildings;
• Kevin Hydes, P.E., P.Eng., vice president, Sustainable Practice, Stantec, Montreal, Canada, Better by Design: Project Studies;
• Malcolm Lewis, Ph.D., P.E., president, CTG Energetics, Irvine, Calif., Integrated Design for Sustainable Buildings.

ASHRAE, founded in 1894, is an international organization of 55,000 persons. Its sole objective is to advance through research, standards writing, publishing and continuing education the arts and sciences of heating, ventilation, air conditioning and refrigeration to serve the evolving needs of the public.
Papers Sought for CLIMA 2007

Papers are being sought for CLIMA 2007, which will focus on creating wellbeing in indoor environments in an environmentally sustainable manner.

The conference, organized by the Federation of European Heating and Air-Conditioning Associations (REHVA) and endorsed by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), will be held June 10-14, 2007, in Helsinki, Finland.

Conference themes are healthy and productive indoor climates, safe water supply and conservation, and sustainable energy use of buildings.

Two types of papers are being sought: those reporting original scientific work and those reporting recent innovations, results of research and development or case studies.

Abstracts are due Oct. 15, 2006. For more information, visit www.ashrae.org/clima2007, or contact info@clima2007.org

March 23, 24, 25, 2006
Metro Toronto Convention Centre, North Building

CMX.CIPHEX is the combination of HRAI’s CMX and CIPH’s CIPHEX Ontario tradeshow all under one roof to create Canada’s largest trade show for the air conditioning, heating (forced air and hydronic), hearth, plumbing, piping, refrigeration and ventilation industries.

If you have registered - thank you! Please forward this message to associates or customers who would also benefit by attending.

This sold-out three-day event will host over 400 of Canada’s leading companies, showing fabulous new products & design ideas, and is expected to attract over 12,000 visitors to this ultimate training and information centre. CMX.CIPHEX will prove to be one of your most effective sales and education tools available in Canada in 2006.

The CMX.CIPHEX 2006 learning forum’s scheduled line-up of speakers includes North American renowned presenters such as Richard Trethewey, John Siegenthaler, and Robert Bean along with well known industry personnel such as Garth Dennison (Sporlan Valve), and Rick Proulx (Cash Acme). The seminars, technical workshops, and critical updates will help position you to profit from the building and renovation explosion. The Learning Forum will provide you, your contractors, customers and your employees with an excellent opportunity to learn what is new and innovative in the industry.

Bonus:
1. Skills Canada - Ontario will showcase the 17th Annual Technological Skills Competition. The Competition promotes careers in the skilled trades and technologies through provincial and national competitions;
2. Opportunity to attend eight complimentary Government of Canada organized training workshops relative to all levels of the residential and commercial building industry. Understand current technologies and regulatory requirements;
3. The Canadian Hydronics Council Pump Challenge is designed to test who can remove and replace a working circulating pump in record time without springing a leak; and
4. Enjoy free Harbourfront parking and board the Emerson Express to the show each day.

For more information visit www.cmxciphexshow.com website and click on visitor registration
Online Seminars Led By Technical Experts
Spring 2006 Online Seminar Series

Interact in Real Time and Earn PDHs/CEUs From Your Desktop

Key ASHRAE seminars are now available online. Earn your continuing education credits at your computer. A live instructor leads the class and answers your questions in real time.

Upon completion of each course, you will earn 3 PDHs/.3 CEUs or 3 AIA Learning Units (LUs).

For more information and to register, visit www.ashrae.org/onlinepds or contact the ASHRAE Learning Institute at (404) 636-8400, or edu@ashrae.org.

COURSES OFFERED

Complying with Requirements of ASHRAE Standard 62.1-2004
(Code WEBS06 102)
Wednesday, March 22, 2006 – 1:00 p.m. to 4:00 p.m. EST

Humidity Control I - Basic Principles, Loads and Equipment
(Code WEBS06 103)
Wednesday, March 29, 2006 – 1:00 p.m. to 4:00 p.m. EST

Humidity Control II - Applications, Control Levels and Mold Avoidance
(Code WEBS06 104)
Wednesday, April 5, 2006 – 1:00 p.m. to 4:00 p.m. EDT

An Introduction to BACnet®
(Code WEBS06 105)
Wednesday, April 12, 2006 – 1:00 p.m. to 4:00 p.m. EDT

Life-Cycle Cost Analysis
(Code WEBS06 106)
Wednesday, April 26, 2006 – 1:00 p.m. to 4:00 p.m. EDT

Registration Fee $225 ($150 ASHRAE Member)

2 Easy Ways to Register:
1. Internet – Visit www.ashrae.org/onlinepds
2. Phone – Call toll-free at 1-800-527-4723 (US and Canada)

Site Licenses:
If multiple people from your organization want to take a course and receive credits, please contact edu@ashrae.org or 678-539-1146.
Event: ASHRAE London Chapter Tour Of Core Energy (Co-Generation Plant)

Meeting Date: March 27, 2006 – 5:30PM
(Meet At Core Energy Plant)

Location: Core Energy Plant
301 Colborne Street London

Dinner To Follow: 6:45PM At The Marienbad Restaurant
122 Carling Street London

Dinner Cost: London Chapter Member $25.00
Guest $35.00  Students $10.00
Meal-plan Members – Included In Plan

(please post and advise other interested members about the tour)
ASHRAE London Chapter Presents:

WILLIAM J. COAD, P.E.
McClure Engineering Associates
St. Louis, MO

ASHRAE PAST PRESIDENT
ASHRAE Distinguished Lecturer

The Ethics and the Economics of Energy Conservation

This talk explores the economics of energy conservation and the failure of economic alternatives in the search for more energy conservative buildings and machines. Then, based upon this observation an alternative perspective leads to the conclusion that energy conservation is an ethic, and if this ethic is embraced by those who practice in the energy sciences, the inevitable result will be improved system performance, energy conservation and economics.

William J. Coad is a principal and immediate past Chairman and CEO of McClure Engineering Associates, a mechanical and electrical consulting engineering firm. He has been with the company for forty years engaged in the design and analysis of all aspects of building systems and as a principal of the company. He is also on the Board of Directors of Metek Corporation of Pittsburgh and of Exergen Corporation of Boston. He was an affiliate professor of mechanical engineering at Washington University teaching graduate level courses in HVAC systems for 29 years. He was the 2001-02 President of the American Society of Heating, Refrigerating and Air-Conditioning Engineers.

Mr. Coad has authored two books and over one hundred articles and papers on various aspects of building systems and energy engineering. He and his firm have been pioneers in the development of computer programs for building energy analysis, cogeneration systems, well water source heat pumps, one-pipe chilled water systems, and variable flow chilled water systems. He has been active in technical, professional, and civic organizations and has received numerous awards for his technical contributions, including ASHRAE’s highest award for technical achievement, the F. Paul Anderson Award.

Event Will Be Held April 24, 2006 At The Lamplighter Inn
591 Wellington Rd. S., London, ON

Social Hour 5:00PM to 6:00PM
Dinner At 6:00PM
Lecture To Begin At 7:15PM – Duration Approx 1 Hour

London Chapter Members = $25.00 Students = $10.00

Pre-register with payment before April 14/2006 = $30.00
send cheque made out to ASHRAE LONDON to:
Union Gas Limited c/o Ms. Noreen Dockstader
P.O. Box 5353 Station A
109 Commissioners Rd. W.  London, ON  N6A 4P1

Others at the door = $35.00
This is the third of Tech Council’s quarterly briefings for SY05-06. You will find information from all the committees that report to ASHRAE’s Technology Council. Our goal is to make the work of the technical side of ASHRAE open to all ASHRAE members. Tech Council is trying to be accountable to the members. One way we are doing this is by making Tech Council Vice-Chair a liaison to the CTTC. We ask that you look this over and give us feedback. Please direct any questions or feedback on this newsletter to Hugh McMillan, Vice-Chair, Tech Council at hugh_mc@mail.ashrae.org.

The ASHRAE Board of Directors approved the Title, Purpose and Scope (TPS) and formation of a new Standard Project Committee as follows: “Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings. This standard is to provide minimum requirements for the design of high-performance, green buildings to balance environmental responsibility, resource efficiency, occupant comfort and well-being, and community sensitivity plus support the goal of development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The standard will be jointly developed by ASHRAE, the US Green Building Council and the Illuminating Engineering Society of North America. The BOD also approved the TPS and formation of a new guideline project committee for Building Operation and Maintenance Training for the HVAC&R Commissioning Process.

The fast track broad review of the ASHRAE Special Publication entitled “HVAC Simplified” by Professor Steve Kavanaugh was completed in record time following the 2005 Annual Meeting in Denver thanks to efforts by TC7.1 and the leadership of its chair, Charles Gulledge. TAC was instrumental in appointing a review committee with Mr. Gulledge as chair. The publication is now available for sale in the ASHRAE bookstore through ashrae.org. TAC established a Project Monitoring sub-committee to support a fast track collaborative project to document in a single publication existing building metering protocols that reflect best practices today. This effort is outlined in greater detail in the document entitled “Scoping Study: Protocols for Measuring and Reporting the On-site Performance of Buildings except Low-Rise Residential Buildings”. This document was developed by volunteers from TC 4.7, 7.6 and 7.9.

The Board of Directors approved funding for scanning the final reports of the 700 plus research projects that ASHRAE has funded over the last 45 years. The reports will be made available to ASHRAE members and others through the ashrae.org. The updated Society Research Implementation Plan is now available on the Research page of the website. Members and others can now review details on the 51 project topics that are currently in development by the TCs and are competing for funding as a research project. 42 applications were considered for the Graduate Student Grant-in-Aid program which is funded by research promotion contributions. Eleven were selected to receive grant awards of up to $10,000 each. Dr. Jeffrey Siegel was selected the winner of the New Investigator Award. He receives up to $45,000 in funding for his HVAC&R related research.

ASHRAE developed and recently published a Position Document on Environmental Tobacco Smoke (ETS). This document is available for free to members and the public. The PD can be downloaded at www.ashrae.org/content/ASHRAE/ASHRAE/ArticleAltFormat/20058211239_347.pdf. The document describes the health effects of ETS, the limitations of ventilation and air cleaning and the expected results from methods ranging from unrestricted smoking to complete smoking bans.

In an effort to help establish the Refrigeration Committee as a resource for the chapters, four ASHRAE Meeting Program DVDs will be purchased to establish a refrigeration resource library for Chapter Refrigeration Chairs. Also, the committee plans to distribute a newsletter to the chapters following each ASHRAE meeting to highlight refrigeration related proceedings and new developments.
Québec, March 7, 2006.

Dear ASHRAE Members and Esteemed Partners,

As you are probably aware, there will be a first in Québec City this coming summer. ASHRAE will be holding its annual summer meeting in Québec City from June 24 to 28 at the Québec Convention Centre.

The organizing committee, made up of seven volunteers headed by Denis Potvin, P.Eng., has been hard at work for a year now. Within the committee, I have been entrusted with the responsibility of providing logistical support for the technical sessions scheduled during the annual meeting. My title is Session Chairman.

To make this event a success, we need your support. We are looking for volunteers to act as monitors. These volunteers will provide technical support to guest speakers (lighting, drinking water at tables, proper operation of audiovisual equipment, presentation of speaker evaluation forms to participants) for all technical aspects attendant to seminars, forums and symposiums.

If you are interested in becoming a monitor, you must be able to guarantee your continuous presence for four (4) hours (a half-day) during one of the four days of the convention. As compensation, your registration at the summer meeting will be free of charge, and you may attend any of the technical sessions free of charge. Registration for the summer meeting is $375 for members in good standing with the ASHRAE. Note that those who are not ASHRAE members may also become monitors and benefit from the same advantages.

Two monitors are required per session. For the duration of the convention, we require about 120 monitors. There will be eight (8) simultaneous sessions per half-day on Sunday June 25th, for a total of 16 presentations on Sunday. There will be eight (8) simultaneous sessions on the mornings of Monday 26th, Tuesday 27th and Wednesday 28th.

We also need monitors for the three (3) PDS Professional Development Seminar seminars scheduled on Saturday June 24th and for the Short Courses scheduled on Sunday
to Wednesday, inclusively. These monitors will also be allowed free access to technical sessions during the convention.

Requirements are as follows:

- Fluency in English (persons speaking Spanish would also be very much appreciated);
- Punctuality.

This event provides an opportunity for thousands of ASHRAE members from around the world to meet and exchange on the latest technical developments in HVAC&R (and many other related sciences). Information presented in the forty or so technical sessions, seminars and courses is very important. Needless to say, the annual summer meeting also provides an occasion to meet leading experts in their respective fields of expertise.

You are cordially invited to take advantage of this unique opportunity to actively participate in a major meeting of the renowned ASHRAE society. I am convinced that you will find the experience most satisfying. Please let me know as soon as possible if you are interested. If not enough monitors are found in local ASHRAE sections of Region II (St. John’s, Newfoundland to Windsor, Ontario), this invitation will be forwarded to all other local ASHRAE sections in Canada and in the United States.

Please provide your complete coordinates preferably via email, and indicate the day on which you would be available.

Thank you in advance for your cooperation.

Yours truly,

Raynald Courtemanche, P.Eng.
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