

# AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS INC.

LONDON CANADA CHAPTER #116

http://LondonCanada.AshraeChapters.org

Mon Nov 26/2007

### Board of Governors

President Scott Edmunds ph: 519-667-4120 sedmunds@uniongas.com

Vice President and Program Eric Shaw ph: 519-964-0022 eshaw@baymarsupply.com

> Treasurer Jason Vanderberghe ph: 519-670-8066 jasonv@aquatech.ws

Secretary Jack Maynard ph: 519-681-1221 jack.c.maynard@jci.com

### **Committee Chairs**

Membership Karl Gilroy ph: 519-451-5100 kgilroy@price-hvac.com

Research Scott Turner ph: 519-681-1977 scott@somersep.com

Golf Tournament Hugh Palser ph: 519-471-9382 hpalser@palserent.com

Newsletter Tom Pollard ph: 519-685-2570 tpollard@execulink.com TOPIC:

# **GREEN GLOBES**

Building and Management Environmental Audit

An on-line auditing tool to guide integration of environmental performance in project delivery and to assess the design of green buildings against best practices and standards.

## MR DARRYL BOYCE, P.Eng CARLETON UNIVERSITY

Assistant Vice-President (Facilities and Planning)

# Meeting - Mon Nov 26/2007

THE LAMPLIGHTER INN, 591 Wellington Rd., London

### **MEMBERSHIP NIGHT**

SPECIAL RATE = \$25.00

Students = \$10.00

**RESEARCH NIGHT** 

CASH BAR 5:15-Social

AR ALL YOU CAN EAT BUFFET al 6:00-Dinner 7:15-Program





### ASHRAE LONDON CANADA CHAPTER #116

http://LondonCanada.AshraeChapters.org Mon Nov 26/2007 Page 2

## President's Message

I hope those of you who made it out to our October meeting enjoyed the presentation of Mr. Gary Sweeney of Cooling Tower Maintenance (CTM) Inc., who spoke on cooling tower design and common problems encountered with each design in the field. Gary provided an extremely candid review on the pros and cons of each cooling tower design.

Please join us this month as Mr. Daryl Boyce of Carlton University discusses Green Globes Environmental Assessments for Building. Many of you will remember Daryl as an active member of London ASHRAE Chapter before he moved to Ottawa. He will present how to measure the environmental performance of buildings against current best practices in areas such as energy, water, hazardous materials, waste management and indoor environment. It is very similar to other green design assessment methods such as LEED. ASHRAE recently announced efforts to achieve 30% energy savings in ASHRAE Standard 90.1 by 2010. Building assessment systems provide a roadmap for existing buildings to keep pace with their younger cousins. For other upcoming speakers, topics and dates, please check out the London ASHRAE website, at http://LondonCanada.AshraeChapters.org.

This month's meeting is also Research Promotion night. Research is the foundation of ASHRAE and is the source of developing the ASHARE Standards and the ASHRAE Handbooks. ASHRAE Research invests significant dollars in Canada to funding HVACR studies and projects at Canadian universities and companies. In actual fact, more money is actually invested back into Canada than is contributed by Canadians, so please give generously.

I hope to see you on November 26th.

Scott Edmunds ASHRAE London President

## Research Night

November 26th will be our Research Promotion night and I would like to start by thanking all of you who have in the past and continue to contribute towards ASHRAE Research Canada. Last year the London Chapter received \$12,308 in contributions and has set a budget for the 2007/2008 campaign of \$12,000. The ASHRAE Society Goal for the 2007/2008 campaign is \$2,037,900 and is currently sitting YTD at \$284,460. I will soon be calling on those of you who have contributed in the past, to continue your support, and would like to ask for those who have who have not contributed to consider doings so. ASHRAE Research plays a key role in sponsoring research projects that help set the standards and design criteria we all see and use today. ASHRAE Research's mission is to "Improve the quality of life and to answer tomorrow's questions through research today."

Scott Turner Research Promotion Chair - ASHRAE London

## Oct Meeting Summary

Gary Sweeney from CTM Inc spoke about cooling towers and the problems that can happed when maintenance on these typically forgotten pieces of mechanical equipment is forgotten. Mr Sweeney had several photo from cooling towers that had failed. Recommendations of cooling tower styles and operations were also discussed.





#### SIEMENS

Siemens Building Technologies, Ltd. 514 Newbold Street

London, ON Canada N6E 1K6 Tel: (519) 68

Jim Dinkel Account Executive Tel: (519) 680-2380 ext. 2800 Fax: (519) 680-2410 Toll Free: (800) 361-9268 jim.dinkel@siemens.com www.sbt.siemens.com



IRONROSS INC. (est. 1986)		
Manufacturers Agents for Industrial & Commercial Air Handling Products		
FANS •COILS • AIR HANDLING UNITS • SILENCERS • ISOLATION • FILTERS • DAMPERS		
Jim Ironside	George Clark	Larry Mills (Sarnia)
678 BELMONT AVE. WEST, SUITE 304 KITCHENER, ONTARIO N2M 1N6 PHONE: 519-742-0171 FAX: 519-742-0543 E-MAIL: <u>info@cfi-ironross.com</u>		





### **ASHRAE LONDON CANADA CHAPTER #116**

http://LondonCanada.AshraeChapters.org Mon Nov 26/2007 Page 3

## Speakers Bio

## Darryl Boyce P.Eng CARLETON UNIVERSITY

Assistant Vice-President (Facilities Management and Planning)

Darryl Boyce joined Carleton University as Director of the Department of Physical Plant in 1998 and was promoted to the position of Assistant Vice-President (Facilities Management and Planning) in 2007. He came to Carleton having spent the previous twelve years with the University of Western Ontario where he served as Associate Director, Facilities Engineering and Construction directing activities related to alterations, new construction, energy management, and utilities operations. Darryl has been a member of ASHRAE since 1983 and has served on numerous Society Committees over the years. Additionally, Darryl has served on the ASHRAE Board of Directors as a Director, Regional Chairman (Region II), a Director-at-large, and a Vice-President. Mr. Boyce is the Past President of the Ontario Association of Physical Plant Administrators (OAPPA), Chair of the Canadian Association of University Business Officers (CAUBO) National Facilities Management Committee, and a member of the Association of Higher Education Facilities Officers (APPA) Information and Research Committee. He completed the Mechanical Engineering Technology Program at the British Columbia Institute of Technology and received a Bachelor of Science Degree in Mechanical Engineering from the University of Alberta.

## <u>GREEN GLOBES</u>

### www.greenglobes.com

Green Globes is an online building and management environmental audit. <u>Green</u> <u>Globes for Existing Buildings</u> helps property owners and managers measure the environmental performance of their buildings against best practices in areas such as energy, water, hazardous materials, waste management and indoor environment. Using a confidential questionnaire, it generates an online report. <u>Green Globes Design</u> is both a guide for integrating green design principles and an assessment protocol. Using confidential questionnaires for each stage of project delivery, the program generates comprehensive on-line assessment and guidance reports. Using Green Globes helps to design a building that will be energy and resource efficient, will achieve operational savings and be healthier to work or live in.

Green Globes Canada was developed in Canada with support of federal and provincial ministries and public utilities and in the UK, by the RICS foundation and Faber Maunsell. Green Globes is the newest addition to the BREEAM/Green Leaf suite of environmental assessment tools. The program's core premise is that environmental leadership and responsibility make business sense.

## HVACR Heritage Centre Canada

### visit www.hhc-canada.net

HVACR Heritage Centre Canada is to preserve and record the history of the heating, ventilating, air conditioning and refrigeration technologies and their essential contributions to Canada's rich heritage and way of life.







### **Upcoming Meetings & Events**

### Jan 19-23/2008

ASHRAE 2008 Winter Meeting - New York City (refer to www.ashrae.org)

Mon Jan 28/2008 ASHRAE London Chapter Meeting tbd

Mon Feb 25/2008 ASHRAE London Chapter Meeting CFD Analysis in HVACR Applications Mr. Paul J. MacDonald - ANSYS Canada Ltd.

Mon March 31/2008 ASHRAE London Chapter Meeting Global Warming - Differing Perspectives Mr Victor Goldschmidt - Northport MI ASHRAE DISTINGUISHED LECTURER

<u>Wed April 16, 2008</u> Chapter Technology Transfer Committee Satellite Broadcast/Webcast The broadcast will focus on "Integrated Building Design." Watch for additional information regarding the Broadcast/Webcast via ASHRAE Insights and www.ashrae.org.

## 2006/2007 ASHRAE Research Donors

I would like to take this opportunity to recognize the individual and corporate donors for the 2006/2007 campaign

Scott Turner Research Promotion Chair - ASHRAE London

Abram Refrigeration and Systems Airwaso Canada Inc. Baymar Supply Limited Bayview Sheet Metal Heating & Air C J Zettler & Associates Ltd Chorley & Bisset Consulting Engr Cimco Refrigeration Control Systems (Ontario) Inc Culliton Brothers Limited Curney Mechanical Drennan Refrigeration Incorporated Durell Control Systems Inc E H Price Sales Limited - London

Mr Andrew T Piatek Mr Dennis L Dawe Mr Derek B Vakaras Mr Eric W Shaw Mr James Bender Mr James W Cooper Mr Jason A Vandenberghe Emcad Consulting Engineers Inc Erie Sheet Metal Integrated Engineering J A Brownlee (1995) Limited J M R Electric Ltd Johnson Controls London Linde Plumbing and Heating Ltd London ASHRAE Chapter Mechanical Contractors Assoc -London Palser Enterprises Ltd Ray Tec Radiant Heaters Ltd

Mr Joseph M Claessens Mr Kim Ellis Mr Owen Richard Glendon Mr Peter J Edmiston Mr Peter J Golem Mr R Jerald Lavender Roberts Bros Sheet Metal Contractors Ltd Smylie & Crow Associates Inc Soan Mechanical Limited Somers Environmental Products Inc Trane Sales Agency (London) TSM Limited Union Gas Limited - Chatham Ontario Weil-McLain Canada Westair Technologies Inc Westminster Mechanical

Mr Robert Thomas Pollard Mr Ronald E Granger Mr Scott C Edmunds Mr Scott E Turner Mr Terry Arcese

ASHRAE, founded in 1894, is an international organization of some 50,000 persons. ASHRAE fulfills its mission of advancing heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education.



http://LondonCanada.AshraeChapters.org Mon Nov 26/2007 Page 5

#### Guidance for Net-Zero Energy Design Highlighted in Technical Program

ATLANTA – How low can you go when it comes to energy reduction in buildings? Try net zero.

Guidance on how to get there is featured in the technical program at ASHRAE's 2008 Winter Meeting, Jan. 19-23, New York Hilton, New York City. For complete meeting information, including abstracts on all technical program sessions, visit www.ashrae.org/newyork.

"This technical program is ASHRAE's most ambitious ever," promises Mo Hosni, chair of the ASHRAE Program Committee. "First, the technical program is filled with sessions that focus on the hottest issues facing the industry – sustainability and net-zero energy buildings. Second, the program is structured to offer the greatest options for attendees with an extended day of sessions on Wednesday, Jan. 23, as well as the scheduling of 16 seminars at the AHR Expo. Third, for the first time, New York professional development hours will be awarded for several sessions in the technical program, providing excellent value for meeting attendees."

The technical program covers a full range of presentations from basic to advanced, offering more than 130 sessions and 60 papers covering some 100 different technical areas. Programs are separated by tracks: applications, business management, commissioning, data center cooling, dehumidification, exergy, fundamentals, operational topics, refrigeration, sustainability, systems and equipment and underfloor air distribution.

More than 30 sessions related to sustainability are included in the program, with its theme of Reaching New Heights in Net-Zero Energy Design.

What is a net-zero energy building? The official ASHRAE definition is "buildings which, on an annual basis, use no more energy than is provided by on-site renewable energy sources." A forum on Jan. 23 explores other definitions and the impact of such buildings on the environment.

A Transactions session on Jan. 22 examines case studies of low-energy buildings, focusing on evaluation of individual technologies, design processes, lessons learned and long-term measured performance.

A Jan. 23 seminar looks at low- and zero-carbon cities of the future, presenting plans by London, Barcelona and Manchester to lower their carbon emissions. Learn how HVAC and related technologies are critical to success.

A Jan. 20 forum looks at the role of energy storage in net-zero buildings, discussing grid impacts, system sizing and costs. Held in conjunction with the ASHRAE meeting is the ASHRAE co-sponsored AHR Expo, taking place Jan. 22-24, Javits

Convention Center. Please note that the Expo is being held Tuesday-Thursday this year instead of its regular Monday-Wednesday schedule.

### '08 Winter Meeting

### Lessons Learned in Sustainable Design Highlighted in ASHRAE Roundtable

ATLANTA - New York City is home to some of the world's best known green buildings and leading design firms that test new boundaries in high-performance, sustainable design.

In a special roundtable session at ASHRAE's 2008 Winter Meeting, two of New York's best-known owner/developer firms, along with the engineering designers who bring their projects to reality, discuss the challenges, opportunities and successes in delivering new green high-rise towers that add to New York City's skyline and grace the covers of engineering trade magazines. High-Performance Buildings: Lessons from the Leaders takes place 11 a.m.-12:30 p.m. Tuesday, Jan. 22, at ASHRAE's meeting,

High-Performance Buildings: Lessons from the Leaders takes place 11 a.m.-12:30 p.m. Tuesday, Jan. 22, at ASHRAE's meeting, Jan. 19-23, New York City. Registration is required to attend.

Learn about owner motivations, technical challenges, design choices and trade-offs, costs for these projects, and perspectives about whether the expectations set early in the design process have been met once the buildings are occupied.

"The building market is transitioning to high-performance green buildings," Kent Peterson, ASHRAE president, said. "It is essential that ASHRAE continue to educate owners, contractors and designers on both the challenges and successes in delivering such buildings. This roundtable offers participants the chance to hear what it takes to provide buildings that perform and are environmentally responsible."

Participants in the session are:

Donald J. Winston, P.E., director of technical services, The Durst Organization, Inc., whose buildings include Bank of America Tower at One Bryant Park, 4 Times Square and the Helena, all of which are featured on technical tours at the ASHRAE meeting. Tom Scarola, director of engineering, Tishman Speyer, whose buildings include the Chrysler Center.

Scott Frank, P.E., partner, Jaros Baum & Bolles, whose buildings include One Bryant Park, World Trade Center Site (Towers 1 through 4) and World Trade Center 7.

Daniel H. Nall, P.E., senior vice president/director-advanced technologies, Flack + Kurtz, whose projects include The New York Times Headquarters, The Hearst Headquarters and the Verdesian.

ASHRAE, founded in 1894, is an international organization of some 50,000 persons. ASHRAE fulfills its mission of advancing heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education.



http://LondonCanada.AshraeChapters.org

#### ASHRAE Expands Certification to Testing Centers Worldwide

ATLANTA – ASHRAE's first certification program is now available in testing centers in 22 countries. The certification, Healthcare Facility Design Professional (HFDP), is a computer-based examination that tests an applicant's mastery of a body of knowledge. "An indoor environment that is safe, comfortable and enhances productivity at minimum impact to the environment is a basic need throughout the globe," Richard Hayter, chair of ASHRAE's Certification Committee, said. "One way by which ASHRAE addresses that need is through its certification programs."

In addition to the United States and Canada, the exam is now offered in Australia, China, Egypt, Guam, India, Italy, Japan, Jordan, Kuwait, Lebanon, Philippines, Puerto Rico, Qatar, Saudi Arabia, Singapore, South Africa, South Korea, Taiwan, the United Arab Emirates, and the United Kingdom.

Applicants first apply for the examination through ASHRAE, and if they meet the certification qualifications, register for the examination at a testing center.

ASHRAE's certification program identifies individuals who have mastered a body of knowledge covering successful design and operation of healthcare facilities. Future certifications are planned for sustainable facility design, commissioning, and operations and maintenance.

The technical content for the HFDP exam was developed in cooperation with the American Society for Healthcare Engineering (ASHE) of the American Hospital Association (AHA).

Membership in ASHRAE is not required to participate. A list of recommended resources on healthcare facility design from ASHRAE and other sources is available. For more information, visit www.ashrae.org/certification.

In addition, ASHRAE will offer an onsite HFDP exam March 10, 2008, at the Gaylord Palms Hotel & Convention Center in Orlando, FL. This exam administration is being offered in conjunction with ASHE's Planning, Design and Construction Conference.

#### ASHRAE Receives NCEES Accreditation for Educational Programs

ATLANTA – ASHRAE has received accreditation for its education program from the National Council of Examiners for Engineering and Surveying (NCEES).

This accreditation from NCEES' Registered Continuing Education Providers Program (RCEPP) gives ASHRAE's educational offerings, part of the ASHRAE Learning Institute, another level of creditability in the eyes of licensing and renewal authorities. ASHRAE Learning Institute offers on-site and online educational programs addressing a wide variety of engineering topics, such as commissioning and compliance with ASHRAE standards. For more information, visit www.ashrae.org/ali.

RCEPP is a comprehensive registry of continuing educational providers that have demonstrated adherence to high-quality, effective practices in the development and delivery of professional education activities for engineers and surveyors.

### 08' ASHRAE

### ASHRAE's Role in Providing Guidance for Contractors Explored in Forum

ATLANTA – To ensure design and construction of the most efficient and comfortable buildings possible, ASHRAE is working to provide its technical guidance to all members of the building team.

Input on guidance needed from ASHRAE to best serve contractors and design build firms is sought in a forum at ASHRAE's 2008 Winter Meeting, Missing the Bus: What is ASHRAE Not Doing for the Contractor? It takes place from 12:15-1:15 p.m. Jan. 22, Javits Convention Center.

"ASHRAE isn't looking to reinvent the wheel on training documentation targeted to contractors and design-build firms but instead to work with existing organizations to market a more comprehensive suite of training information for contractors," Jim Fields, chair of ASHRAE's task group on HVAC contractors and design-build firms, said. "One of our primary goals is to see how we can make existing products, such as standards and design guides, more user-friendly for contractors."

ASHRAE formed its task group earlier this year. Fields said more active involvement with contractors and design-build firms will help strengthen the level of understanding between design engineers and these other disciplines.

For more information about the ASHRAE meeting, Jan. 19-23, at the New York Hilton, visit www.ashrae.org/newyork. Held with the ASHRAE Winter Meeting is the ASHRAE co-sponsored International Air-Conditioning, Heating, Refrigerating Exposition, Jan. 22-24, at Javits Convention Center. For more information, visit www.ahrexpo.com.

ASHRAE, founded in 1894, is an international organization of some 50,000 persons. ASHRAE fulfills its mission of advancing heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education.