

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

LONDON CANADA CHAPTER #116

<http://LondonCanada.AshraeChapters.org>

Mon Sept 24/2007

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Newsletter

Tom Pollard
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TOPIC:

How boiler plant efficiencies will be estimated on a seasonal basis with reference to the upcoming SPC 155A ASHARE standard.

Condensing boiler technology development

Selecting accumulator and stratified storage tank hot water system components (i.e. tank, pump, heater, pipe sizes) for laundry or process applications.

Mr FRED CAMPAGNA
AERCO INTERNATIONAL

Meeting - Mon Sept 24/2007

THE LAMPLIGHTER INN, 591 Wellington Rd., London

MEMBERSHIP NIGHT

London Chapter Members = \$25.00
Students = FREE Others = \$35.00

STUDENT NIGHT

CASH BAR ALL YOU CAN EAT BUFFET
5:15-Social 6:00-Dinner 7:15-Program



President's Message

With summer drawing to a close, I would like to welcome everyone back to the 2007-2008 ASHRAE year. First, I would like to introduce you to your new Board of Governors for this year. The chapter executive consists of Eric Shaw as Vice President, Jason Vandenberghe as Treasurer, Jack Maynard as Secretary & myself as President. We have a few new Committee Chairs this year and I'm looking forward to working with everyone to ensure another successful year.

Eric has been working hard to get this year's speakers and activities arranged. He has selected monthly meeting speakers to cover a broad range of topics, including HVAC design, refrigeration and sustainability. One of the highlight of this year will be having an ASHRAE designated lecturer, Mr. Victor Goldshmidt, visit our chapter and speak on Global Warming - Differing Perspectives in March. More information on upcoming meeting topics and dates can be found at the chapter website: <http://londoncanada.ashraechapters.org>. Please mark all the meeting dates on your calendar

Our September meeting will feature Mr. Fred Campagna of Aerco International, who will be speaking to us on Boiler Advancements. This will also be our first student promotion night and I would encourage those of you who have been active in the ASHRAE environment to take the time to welcome them, let them know the benefits of ASHRAE and what exciting career opportunities lie within the HVAC&R industry. We will also be contacting chapter members and companies shortly to sponsor a student so they can attend meetings on a regular basis. Your support will be greatly appreciated.

As in past year, our focus will continue to be promoting membership. In order to emphasize the value of chapter membership, we have held the price of monthly meeting for chapter members to \$25 per meeting (or \$125 for the entire year), and our guest rate will remain at \$35. Please consider inviting guests to attend a meeting and help grow the chapter.

Over the summer, 6 members of the ASHRAE Board of Governors attended the Chapter II Regional Conference (CRC) in Moncton, New Brunswick. One important aspect of the CRC is to recognition the achievements of each chapter's performance in day-to-day operations. Our chapter received a number of awards for last year's performance including a Special Citation for our Past President, Scott Turner. Congratulations must also goes out to Joe Claessens, who received a Resource Promotion award in recognition of exceeded his goal of raising \$10,000.00 for ASHRAE Research by over 20% (\$12,308), a new chapter record.

In closing, I look forward to another successful year for ASHRAE London and I hope to see you on September 24th.


Scott Edmunds
ASHRAE London President

Student Night

September is student night and we would like to invite all students to come out to our monthly meeting on Monday September 24th. The cost to students on this night is **FREE!** Members, please make an extra effort to welcome students by inviting them to your dinner table or introducing yourself sometime throughout the night.

Any company that would like to sponsor a student meal on this night can contact a member of the executive.

Pete Edmiston
Branch Manager



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Speakers Bio

Fred F. Campagna

VP, International Sales & Marketing
AERCO INTERNATIONAL

Fred has been working in the HVAC industry in distribution, engineering, and manufacturing since 1971. In 1979, following several years with Burns & Roe A&E Consultants, a nuclear and fossil fuel power plant design firm, he joined Aerco International.

Over the past several years, Aerco has expanded its distribution to 29 International representatives. In addition, Aerco has expanded its operations into Asia where Fred has been instrumental in the formation and current management of Aerco's Chinese and S. Korean joint venture manufacturing companies.

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ASHRAE LONDON
2006/07 Financial Summary

Table with 2 columns: Description and Amount. Rows include Starting Balance, Income (Memberships, Meal Plans, Special Events, Misc), Expenses (Meetings, CRC, Special Events, Misc), and Ending Balance.

ASHRAE LONDON
2006/07 Awards

- At the Regional Chapters Conference (CRC) held in Moncton this summer, the Regional awards were handled out. The London Chapter received awards for:
- Research Award - for the Chapter exceeding its research goal
- Full Circle Award - for the Chapter Executive and Research Chair each contributing to ASHRAE Research
- Presidential Award of Excellence - Star + Honour Roll - for obtaining par in point for chapter activities and for at least four consecutive years.

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June Meeting Summary

The annual golf tournament was held last spring and was another sold out event. ASHRAE Research London Chair Joe Claessens would like to thank everyone who made a "donation" to ASHREA Research (by purchasing a mulligan) in which \$585.00 was raised.

Thank you to Hugh Palser and Palser Enterprises who organized the event.

UPCOMING Meetings & Events

Mon Oct 22/2007

>>>> NOTE - MEETING ONE WEEK EARLIER THEN NORMAL <<<<

Cooling Tower Design, Application and Problems

Mr Gary Sweeney - CTM

Mon Nov 26/2007

Green Globes - Environmental Assessments for Building

Mr Daryl Boyce - Carleton University, Ottawa

Mon March 31/2007

Global Warming - Differing Perspectives

Mr Victor Goldschmidt - Northport MI

ASHRAE DISTINGUISHED LECTURER

Wed April 16, 2008

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.

ASHRAE Installs New Officers, Directors

LONG BEACH - The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) installed new officers and directors at its 2007 Annual Meeting held here June 23-27.

The new president is Kent W. Peterson, P.E., Fellow ASHRAE, vice president and chief engineer, P2S Engineering Inc., Long Beach, Calif. Through his theme, Greater Efficiency Today, Blue Skies Tomorrow, Peterson emphasizes innovation in the quest for sustainability in the built environment. He notes that "energy efficiency should always be the elegant alternative to fuel consumption." As such, he encourages ASHRAE members to become more radical in their ideas, more daring in their creativity, and dedicated to delivering innovative systems, methods and technology.

Other officers installed for a one-year term are:

- President-Elect: William A. Harrison, president, Trane Arkansas, Little Rock, Ark.
 - Treasurer: Gordon V. R. Holness, P.E., Fellow ASHRAE, Life Member, chairman emeritus, Albert Kahn Associates Inc., Detroit, Michigan.
 - Vice President: Lynn G. Bellenger, P.E., Fellow ASHRAE, partner, Pathfinder Engineers, Rochester, N.Y.
 - Vice President: Maureen Grasso, Ph.D., dean, Graduate School, University of Georgia, Athens, Ga.
 - Vice President: Andrew Persily, Ph.D., Fellow ASHRAE, group leader, National Institute of Standards and Technology, Gaithersburg, Md.
 - Vice President: Vincent Tse, Fellow ASHRAE, managing director, Parsons Brinckerhoff (Asia), Hong Kong.
- ASHRAE installed the following directors to serve a three-year term from 2007-2010:
- Region IV Director and Regional Chair: Ira Poston, northern region business relations manager, Duke Energy Carolinas, Burlington, N.C.
 - Director-at-Large: Constantinos A. Balaras, Ph.D., P.E., research director, Institute for Environmental Research and Sustainable Development, National Observatory of Athens, Greece.
 - Director-at-Large: Richard Kelso, Ph.D., P.E., Fellow ASHRAE, retired president, Kelso-Regen Associates, Knoxville, Tenn., and professor, the College of Architecture and Design, the University of Tennessee.
 - Director-at-Large: David Knebel, P.E., Fellow ASHRAE, vice president, sales and technology, AAON Inc., Tulsa, Okla.



ASHRAE Announces Scholarship Recipients

ATLANTA – The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) has announced the recipients of 21 scholarships totaling \$86,000 for the 2007-08 academic year. The students, all pursuing courses leading to a career within the HVAC&R industry

Memorial Scholarship: Brian Coulter, University of Western Ontario, mechanical engineering.

ASHRAE has awarded 148 scholarships during the past 16 years. The ASHRAE scholarship program encourages and assists HVAC&R education through scholarships and fellowships.

In addition, ASHRAE has launched a new Webpage for its scholarship program – www.ashrae.org/scholarships. The page provides a summary of all ASHRAE scholarship opportunities for students seeking scholarship information, along with testimonials from former scholarship recipients.

For more information, visit the scholarships page or contact Lois Benedict, scholarship administrator, at benedict@ashrae.org or 678-539-1120.

River Serves as Inspiration for Energy Source

ATLANTA – Student designers turned to the Hudson River as an energy source in transforming a New York City distribution center into a biotech research laboratory as part of ASHRAE's 2007 Student Design Competition.

This year's competition featured architectural design as well as selection and design of HVAC&R systems. The goal was to turn an existing building in a biotech research facility complete with labs, office space, equipment, mechanical penthouse space, and a vivarium (an enclosure for keeping plants and animals alive in their natural habitat for observation purposes).

First place in the HVAC system selection category is awarded to Kevin Chow, Brandon Damas, Jeremy Fowler, Brandon Frey, Brendan Gleason and Ben Willey from Kansas State University, Manhattan, Kansas. Their advisors are Julia Keen, P.E., and Fred Hasler, P.E.

The students selected open-loop geothermal heat pumps, extracting water from the Hudson River as a heat source, with heat pipe heat exchange units recovering sensible heat only to avoid cross contamination between the outside air and lab exhaust airstreams. The students note that this system eliminates the need for a boiler, cooling tower, and chiller.

"Overall, the greatest benefit realized by the owner will be due to the efficient nature of the geothermal heat pumps and the heat pipe heat recovery unit," the students said. "Geothermal heat pumps utilize natural heating and cooling energy from the river, reducing the amount of natural resources consumed for operation. This minimizes the impact on the environment when compared to other systems by reducing the carbon dioxide gas associated with burning fossil fuels."

First place in the HVAC system design category goes to Gary Schrader, Jeremy Saddison, Ryan Larson and Chad Gydesen of Ferris State University, Big Rapids, Mich. Their faculty advisor is Douglas Zentz.

Their design features a geothermal heat pump plant, using the Hudson River as the heat sink, considered a water-to-water heat pump system. Both the lab and office systems will use total enthalpy wheels to recover sensible and latent heat from the exhaust air streams to pre-condition the outside air needed for ventilation.

"Using a water source heat pump plant along with variable air volume air handlers with total energy recovery wheels proves to be the most energy efficient when looking at total energy consumption," the students noted. "The system also was the best in terms of sustainability and green design."

First place in the architectural design category is awarded to Stuart Johnson and Grant Helmkamp of Lawrence Technological University, Southfield, Mich. Their advisor is Daniel Faoro.

The students selected a cellular approach to their design, due to the nano-technology and biology research uses. The design allows mechanical systems to be grouped together to minimize unused space between walls and provide efficient systems, according to the students.

"The opportunity to express the mechanical systems on the exterior is evident in the tall mechanical chases," the students noted. "The mechanical chases contain the exhaust system and wind turbines to provide alternative energy. The exterior is intended to complement the existing building. The laboratories are designed to express their function from the exterior; the use of translucent cladding, which illuminates the labs and renders them visible to the street."

Awards will be presented at ASHRAE's 2008 Winter Meeting Jan. 19-23 in New York City. Winning student groups will each have a poster presentation to display their projects at the meeting.

The competition recognizes outstanding student design projects, encourages undergraduate students to become involved in the profession, promotes teamwork and allows students to apply their knowledge of practical design.



GreenBits Blog Provides Insight Into Building Industry Trends and ASHRAE

ATLANTA - Kent Peterson juggles many roles these days: president of ASHRAE, husband and father, business owner and engineer. Now, he is adding one more item to that tidy list—blogger.

In a new blog from the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Peterson shares information about ASHRAE happenings and industry trends from his perspective as president of the Society. Titled GreenBits, the blog can be found at www.ashrae.org/blog.

"The construction industry is rapidly evolving with new technologies adapted to a varied array of building services," Peterson says. "As I travel to various events as ASHRAE president globally, I hope to share my perspective on how our industry is meeting sustainability challenges in the built environment and how ASHRAE members worldwide are contributing. It also provides ASHRAE members with an opportunity to comment on our progress."

Updated weekly, GreenBits also has its own RSS feed for easy access to the latest posts and reader comments. To subscribe to the feed, visit the blog and click on the RSS link on the left column.

ASHRAE Publishes Energy Performance Comparison Standard

ATLANTA – A common basis for reporting building energy use and comparison of energy performance is available in a new standard from ASHRAE.

ANSI/ASHRAE Standard 105-2007, Standard Methods of Measuring, Expressing and Comparing Building Energy Performance, provides a method of energy performance comparison that can be used for any building, proposed or existing, and that allows different methods of energy analysis to be compared.

This will help facilitate comparison, design and operation improvements and development of building energy performance standards, according to J. Michael MacDonald, chair of the committee that wrote the standard.

"ASHRAE is working to advance the development and understanding of these advanced building performance comparison methods," he said. "This standard provides a framework for assuring access by all interested parties to performance comparison or rating methods that are developed."

The biggest change to the standard, last published in 1999, is inclusion of building energy performance comparison, which is vital for energy efficiency efforts worldwide, he said. Past versions of the standard provided a basis for reporting energy use but had limited ability to express or compare performance.

MacDonald notes that existing standards and building rating systems include requirements related to energy performance comparison.

MacDonald said the guidance in the standard progresses from energy use index (total annual energy use per square foot) to other indexes, such as energy use per hospital bed, and then to performance comparison frameworks.

The standard also identifies key characteristics that users should consider reporting when performance comparisons are of interest, such as the number of workers, weekly hours of operation, and annual cooling and heating degree days.

The cost of ANSI/ASHRAE Standard 105-2007, Standard Methods of Measuring, Expressing and Comparing Building Energy Performance, is \$36 (\$30 members). To order, contact ASHRAE Customer Service at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), fax 404-321-5478, or visit at www.ashrae.org/bookstore

Varied HVAC Systems Featured in ASHRAE Headquarters Renovation

ATLANTA - Once completed, ASHRAE's renovated headquarters building in Atlanta will feature two separate HVAC systems as part of its role as living lab.

ASHRAE's Board of Directors has given the project its final stamp of approval. ASHRAE staff will move into temporary offices in September. The renovation is expected to be completed in June 2008 at an estimated cost of \$5.4 million. The renovated building will feature a new learning center and will serve as a living lab.

"The living lab will support the ASHRAE research program with a rich resource of data on building, system and equipment performance, a demonstration of performance monitoring, and space for 'real world' investigations in an operating building," said Bill Harrison, ASHRAE president-elect who serves as chair of the committee overseeing the project.

Level one of the building will feature air-cooled multi-split variable refrigerant flow fan coil units with zoned inverter-driven outdoor heat pumps. Level two will feature ground source direct expansion heat pumps for cooling and heating.

Both systems will use a common dedicated outside air system (DOAS), served by a 100 percent outside air unit with energy recovery wheel, series desiccant dehumidification wheel, electrostatic enhanced filters and DX air-cooled R410 multi-stage compressor/condensers.

ASHRAE plans to apply for a LEED Gold certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design rating system.

Complete information on the renovation can be found at www.ashrae.org/building

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.

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Wed, September 26, 2007 – 1:00 p.m. to 4:00 p.m.
 Mon, October 22, 2007 – 1:00 p.m. to 4:00 p.m.
Instructor: Mack Wallace, P.E.

Humidity Control I – Basic Principles, Loads and Equipment

Mon, October 15, 2007 – 1:00 p.m. to 4:00 p.m.
Instructor: Lew Harriman, P.E.

Complying with Requirements of Standard 62.1-2004

Wed, October 24, 2007 – 1:00 p.m. to 4:00 p.m.
 Mon, November 19, 2007 – 1:00 p.m. to 4:00 p.m.
Instructor: Hoy Bohanon, P.E.

An Introduction to BACNet®

Wed, November 7, 2007 – 1:00 p.m. to 4:00 p.m.
Instructor: David Fisher, P.E.

Natural Ventilation

Thurs, October 4, 2007 – 1:00 p.m. to 4:00 p.m.
Instructor: Frank Mills, P.E.

Humidity Control II – Applications, Control Levels and Mold Avoidance

Wed, October 17, 2007 – 1:00 p.m. to 4:00 p.m.
Instructor: Lew Harriman, P.E.

Understanding & Designing Dedicated Outdoor Air Systems

Wed, October 31, 2007 – 1:00 p.m. to 4:00 p.m.
Instructor: Stanley Mumma, Ph.D., P.E.

Introduction to Green Buildings and Sustainable Construction

Wed, November 14, 2007 – 1:00 p.m. to 4:00 p.m.
Instructor: Joy Altweis, P.E.



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ASHRAE Publications



ASHRAE STANDARDS:

Standard 52.2-2007

Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size (ANSI Approved)

Product Code: 86143

Price: \$39 / ASHRAE Member Price: \$32

Standard 62.1-2007

Ventilation for Acceptable Indoor Air Quality (ANSI Approved)

Product Code: 86155

Price: \$65 / ASHRAE Member Price: \$52

Standard 62.2-2007

Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings (ANSI Approved)

Product Code: 86158

Price: \$39 / ASHRAE Member Price: \$32

Standard 90.2-2007

Energy Efficient Design of Low-Rise Residential Buildings (ANSI Approved)

Product Code: 86239

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