



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

LONDON CANADA CHAPTER #116

<http://LondonCanada.AshraeChapters.org>

Monday Oct 24/2011

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Topic

State of the Art Hospital Air Filtration Systems

Speaker

Charlie Seyffer CamFil Farr Air Filtration Technology Leader LEED, Sustainability, ASHRAE standards Troy, New York

Meeting - Mon Oct 24/2011

**Windermere Manor
UWO Research Park
200 Collip Circle, London**

4:00pm - Chapter Board of Governor's Meeting

5:30pm Social 6:00pm-Dinner
7:15pm - Program

\$45.00 for London Chapter dues paid members
or \$200.00 for meal plan

\$50.00 for others

October is Student Night - Students with valid student card FREE
(normally \$10.00)





President's Message

I'm assuming everyone enjoyed their Thanksgiving with the perfect weather we just had for the long weekend?

This month we are having our meeting at Windermere Manor @ UWO as well it will be our first Student Night of the year. Our speaker this month is Mr. Charlie Seyffer and his presentation will be on "State of the Art Hospital Air Filtration Systems"

I want to thank everyone who joined us at the September meeting where we started the year off by playing 9 holes at Greenhill's and followed by a great dinner.

As most of you know ASHRAE's winter conference will be held in Chicago this year from January 21 – 25 those of you going can register on line at www.ashrae.org/chicago.

Another very cool item that ASHRAE is offering is their Green Guide as an e-book for the iPad for only \$39.99 if you are interested go to the ASHRAE website for more details.

Next month our meeting will be held at Michael on the Thames restaurant we are looking at having a larger crowd in November so we will see you there.

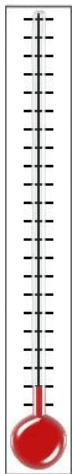
Jason Vandenberghe
Chapter President 2010/2012
ASHRAE London Canada Chapter

October Topic

State of the Art Hospital Air Filtration Systems

Charlie Seyffer, CamFil Farrwill, be updating the group on Standards related to Air Quality and Air Filtration. Some of the topics covered will include ASHRAE 52.2, ASHRAE 62.1, ASHRAE Standard 170 and various industry happenings with other standard producing bodies such as CSA and ISO.

Research Promotion News:



\$11,000
\$795
\$0

Another month goes by and we are starting to see the beginnings of the cold weather sneaking into our day to day. Before you know it, we will be faced with the "white stuff" arriving.

The displayed "Research Thermometer" appears to be a little cold currently – It shows our current Research Contribution level, and we hope to see it grow in coming months.

We will be holding a donor recognition night at a meeting in the next few months – certificates and coins will be presented to our contributors from last year... Thanks for your support.

Watch the newsletter for the upcoming event announcement. Thank you to all of you who have contributed, or intend to contribute to our local Chapter Research Fund Raising Drive. We look forward to seeing you at the meeting on the 24th

Eric W. Shaw
Chapter Research Chair 2010/2012
ASHRAE London Canada Chapter



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October Speaker

CHARLIE SEYFFER

Air Filtration Technology Leader
LEED, Sustainability, ASHRAE standards
Troy, New York

Charlie is Manager of Marketing and Technical Services for Camfil Farr. He has over thirty years of service in the HVAC industry, with twenty-five years being dedicated to the air filtration industry in sales management and marketing for Camfil Farr. Prior to assuming a marketing position, Charlie was regional sales manager for the largest volume producing territory in the country. His customers included IBM, Kodak, northeast-based pharmaceuticals, many prestigious universities, major federal government entities as well as Camfil Farr representatives and distributors. Presently, he is responsible for all technical publications and product literature published in the North America, and shared worldwide by the Camfil Farr group. He is also responsible for Camfil Farr's U.S. web entities.

Charlie has developed a strong reputation on the lecture circuit, speaking to the filtration needs of schools, museums, pharmaceuticals, medical facilities, industrial and commercial facilities, animal care laboratories, and the food & beverage industry. Some of his more significant speaking engagements have included national convention presentations for the American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE), the American Association for Laboratory Animal Science (AALAS), the National Air Filtration Association, as well as other organizations concerned with indoor air quality initiatives and standards.

Currently, Charlie serves as the Program Chair for ASHRAE Technical Committee 2.04 — Particulate Air Contaminants and Particulate Contaminant Removal Equipment. He is also a member of the aforementioned ASHRAE 2.04, ASHRAE Standard — 180 Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems, and has served with ASHRAE 62.1, Ventilation Standard for Acceptable Indoor Air Quality. Charlie is Camfil Farr's primary representative to the United States Green Building Council and is an active member in AIHA (American Industrial Hygiene Association) and IEST (Institute of Environmental Sciences & Technology).

HIGHLIGHTS:

Credentials:

- Engineering & Industrial Technology, Hudson Valley College, Troy, NY

Experience:

- 30 years diverse sales & marketing background with strength in air filtration technology
- Published author of multiple air filtration articles in industry and application-specific publications

Accomplishments:

- Active national meeting program chair for ASHRAE Technical Committee 2.04
- Appointed as Voting Member for ASHRAE Standard 180
- Recognized speaker with 20 plus years experience lecturing on air filtration solutions (including ASHRAE, HEPA/ULPA and containment) to various governmental, commercial, manufacturing and industrial entities throughout the US, Canada and Australia
- Served on Standards writing committees for several noted organizations instrumental in setting air filtration guidelines and principles for the industry
- Designated as Camfil Farr's spokesperson driving LEED and Sustainability on the United States Green Building Council



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MEMBERSHIP ADVANCEMENT

Reasons to Advance From **Associate** to **Member**...

Why?

- Prestige
- Chapter recognition through newsletter and at meeting
- To serve on a technical committee, chapter officer or regional role
- To qualify for ASHRAE Fellow and other Society awards
- You can add Member ASHRAE to your email tag
- Allows your chapter to shine among other chapters
- Society recognition in Insights

What are the requirements?

At the time of admission or advancement, a Member shall have the equivalent of 12 Society-approved years of experience composed of an approved combination of:

- (1) completed education beyond high school
- (2) Work experience*
- (3) Professional engineering or related registration or license issued by a legally authorized body.

*Qualifying work experience must be in the performance of duties in work related to ASHRAE fields and shall have included research, teaching, design, contracting, engineering sales, or engineering management.

How?

Update your member bio online and email membership@ashrae.org indicating an interest in advancement

Best Regards,

Jordan Foster
Membership Chair 2011/2012
ASHRAE London Canada Chapter

September Meeting

London Chapter members played 9 holes of golf at Greenhills and the weather cooperated by holding off the rainstorm until just before dinner.

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.



LONDON CANADA - Future Chapter Meetings

The future meeting tentative schedule - be sure to watch the web site and sign up for email notices to be advised of future meeting locations, speakers and topics:

<u>Date</u>	<u>Location</u>	<u>Speaker</u>	<u>Topic</u>
Sept 26, 2011	Greenhill's Golf Club	N/A	Kick off 9 Hole golf tourney
Oct 24, 2011	Windermere Manor UWO Research Park	Charlie Seyffer CamFil Farr Air Filtration Technology Leader LEED, Sustainability, ASHRAE standards Troy, New York	State of the Art Hospital Air Filtration Systems
Nov 21, 2011	Michael's on the Thames	Stephen Dixon TdS Dixon Inc Waterloo, Ontario	Energy Reduction Tools and Good Practices
Jan 30, 2012	Michael's on the Thames	**Mayor Joe Fontana** London City Mayor	City Infrastructure
Feb 27, 2012	Windermere Manor UWO Research Park	Chip Morrow The VMC Group	Vibration Theory & Practical Knowledge of Isolation applications
Mar 26, 2012	Michael's on the Thames	** Brian Monk** - ASHRAE DL	Filtration for High Performing Buildings
Apr 19, 2012	ASHRAE Webcast	www.ashrae.org/education	Dedicated Outdoor Air Systems - A Path to Balancing Enegy and IEQ
Apr 30, 2012	TBA Please stayed tuned for location announcement		Technical Tour
June 4, 2012	Fire Rock Golf Club		Year End close out Golf Tournament



New Faces of Engineering Program Extended to College Students

ATLANTA— Building systems engineering is changing. As the future of engineering, college students are playing a crucial role in that change. In recognition of this, ASHRAE, along with the National Engineers Week (NEW) Foundation, has created New Faces of Engineering: College Edition.

In 2003, ASHRAE created the very successful New Faces of Engineering program aimed at young engineers under the age of 30. New Faces: College Edition is ASHRAE's legacy project as the chairing society of Engineers Week 2011. The program strives to promote the accomplishments of junior and senior engineering students by highlighting their academic successes and contributions to the industry and ASHRAE.

ASHRAE's college New Face of Engineering will be recognized in a full-page ad in the ASHRAE Journal and also have their profile featured on the New Faces of Engineering: College Edition's Facebook page. They will also receive a \$1000 scholarship and will have the advantage of including the honor on future resumes and applications.

"ASHRAE is excited to build on the foundation of the New Faces in Engineering program that we introduced as lead society in 2003," ASHRAE President Ron Jarnagin said. "We see this as a way to highlight the future, offering a chance to showcase the exciting new talents that epitomize the dynamic innovations and advancements that are engineering. We believe this program will provide stimulation and incentive for our college students. It will reflect the broad spectrum of engineering today, and demonstrate to the world where the next generation of engineers will take us."

ASHRAE's student New Face of Engineering would demonstrate academic excellence, with a GPA of 3.0 or higher, hold leadership positions within university student organizations, have outstanding communication skills, have a record of some non-engineering related community service and have a proven track record of involvement in the engineering industry.

Students who wish to apply must be an ASHRAE member; be a junior or senior (defined as third, fourth or fifth year) as of Sept. 1; enrolled in a Bachelor of Science in Engineering program at an ABET accredited school—or an equivalent international educational institution. The deadline for application is Oct. 21.

Applications are now being accepted through the New Faces of Engineering: College Edition Facebook page at www.facebook.com/CollegeEdition. Student members are asked to answer four short questions about their experience as an engineering student and must submit a professional quality head and shoulders photo; "action shots" are also encouraged.

More information on the new program, as well as additional resources for college students can be found at www.ashrae.org/nfcollege.

ASHRAE is Supporting Sponsor of Solar Decathlon 2011

ATLANTA—ASHRAE is proud to once again shine a light on the key role solar energy will play in the development of net-zero energy buildings as a supporting sponsor of the Solar Decathlon 2011.

The Decathlon—sponsored by the Department of Energy and held on the National Mall from Sept. 23-Oct. 2—is a competition in which 20 teams of college and university students compete to design, build and operate the most attractive, effective and energy-efficient solar-powered house.

"The students participating in the Solar Decathlon are the future leaders of the building industry," Ron Jarnagin, ASHRAE president, said. "ASHRAE is eager to support these young leaders in their goal of finding the best way to reach net-zero. We can learn a lot from their innovation, enthusiasm and dedication."

As part of its role as a supporting sponsor ASHRAE will host two workshops, one focusing on recent updates on commercial and residential building design standards, held Friday, Sept. 23, and one focusing on renewable energy options for homeowners, to be held Sunday, Sept. 25.

To provide the Solar Decathlon student teams with the best possible engineering resources as they plan their solar homes, ASHRAE has made available a variety of resources to the student teams such as HVAC Simplified and the ASHRAE GreenGuide, to name just a few.

Perhaps the greatest resource ASHRAE has to offer is its members' expertise. Over a dozen ASHRAE members have been selected by DOE and the National Renewable Energy Lab to serve as Solar Decathlon Observers. ASHRAE Observers are assigned to observe two to four houses each to manage the 10 contests that make up the entire competition. ASHRAE Observers plan to dedicate several days to serve in this capacity.

"I believe that the Solar Decathlon is a unique opportunity for students to design, test, build, and see their buildings work," Dru Crawley, an ASHRAE member and volunteer Observer, said. "This hands-on application of what they're learning in a broad range of disciplines cannot be replicated any other way."

Additionally, ASHRAE has encouraged its members who live in the D.C. area to volunteer their time at the Solar Decathlon by helping to answer questions asked by the visiting public or assisting organizers with operating the competition. Whether available to volunteer for a few hours or multiple days, ASHRAE members' volunteer contribution helps make the Solar Decathlon 2011 a success.

ASHRAE also offers students, who participate in several intense days of construction, a way to relax by co-sponsoring a student reception with USGBC and AIA on Sept. 24. The reception allows participants to meet and greet decathletes, organizers and sponsors, as well as enjoy great food and the chance to win raffle prizes.



ASHRAE, AHR Expo Return to Chicago for 2012 Winter Conference

ATLANTA—Registration is open for ASHRAE's 2012 Winter Conference in Chicago where attendees have the chance to discuss and examine the latest topics in the building industry, such as high performing buildings and integrated design, as well as participate in technical tours; attend ASHRAE Learning Institute courses; earn professional credits; and obtain ASHRAE certifications.

The 2012 Winter Conference takes place Jan. 21-25 at the Palmer House Hilton. The International Air-Conditioning, Heating, Refrigerating Expo®, held in conjunction with the Winter Conference, will run Jan. 23-25. The Expo, www.ahrexpo.com, is held at the McCormick Place.

In keeping with ASHRAE's goal of continuing education the Conference offers over 200 Professional Development Hours, as well as Continuing Education Units, which can be applied toward a Professional Engineering license.

The technical program features more than 90 programs and 300 speakers addressing energy modeling applications; integrated design; healthcare, laboratories and data center applications, among others; operations and maintenance; high performance buildings; as well as refrigeration and systems and equipment sessions. Additionally, there is a new "mini-conference" on Installation, Operation & Maintenance of HVAC Systems built within the Technical Program. The O&M mini-conference is scheduled on Jan. 22-23. The full Technical Program, which will be announced later this month, offers the opportunity to earn a year's worth of PDHs, NY PDHs, AIA LUs and LEED AP credits.

The Chicago Virtual Conference is included with a paid Conference registration—comp and single day registration excluded—and includes on-demand access to all speakers' audio presentations synced to their presentations. Attendees and speakers can post comments on the presentations for a two-week period. Those not attending the Chicago Winter Conference in person may register for the Virtual Conference only. Register at www.ashrae.org/chicagovirtual.

Five Professional Development Seminars and 15 Short Courses are offered to help industry professionals stay current on HVAC technology, including how to apply the newest ASHRAE standards. The ASHRAE Learning Institute (ALI) is offering a new half-day short course on the basics of combined heating and power systems, as well as updates to the full-day professional development seminars focusing on Standards 62.1, Ventilation for Acceptable Indoor Air Quality, and 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings. ALI courses are approved for renewal of professional engineer and professional architect licenses, as well as for industry certification programs.

Additionally, ASHRAE offers a special administration of all six certification examinations on Jan. 25: Building Energy Assessment Professional (BEAP), Building Energy Modeling Professional (BEMP), Commissioning Process Management Professional (CPMP), High-Performance Building Design Professional (HBDP), Healthcare Facility Design Professional (HFDP) and Operations & Performance Management Professional (OPMP). ASHRAE's certification program recognizes industry professionals who have mastered knowledge and skills reflecting best practices in certain aspects of building design and operations. More information on each certification can be found at www.ashrae.org/chicagoexams.

ASHRAE Conference technical tours give you a first-hand look at technology developed by members to further the industry. Tours include the North Central College Residential and Recreation Center, Loyola University Information Commons, the University of Chicago Mansueto Library and Rush University Medical Center Central Energy Plant.

The Winter Conference also includes a program designed for students of the Society. Highlights of the program, held on Sunday, Jan. 22, include speakers, a professional development session and presentations by the recipients of the Student Design Competition and a technical tour of the University of Chicago library.

To register and for complete Conference information, visit www.ashrae.org/chicago.

ASHRAE Introduces New Liquid Cooled Datacom Environmental Classes

ATLANTA - A new whitepaper that serves as the first vendor neutral thermal guideline for liquid cooled data processing environments is available for free download from ASHRAE.

"2011 Thermal Guidelines for Liquid Cooled Data Processing Environments" creates data center classes for liquid cooling that can enable fulltime economizers for a number of applications in many climates, according to Don Beaty, chair of the Publications Subcommittee of ASHRAE's Technical Committee (TC) 9.9, Mission Critical Facilities, Technology Spaces and Electronic Equipment. "2011 Thermal Guidelines for Liquid Cooled Data Processing Environments" can be downloaded for free from the ASHRAE TC9.9 website at www.tc99.ashraetcs.org.

The increasing heat density of modern electronics is stretching the ability of air to adequately cool the electronic components within servers as well as the data center facilities that house these servers. To meet this challenge, the use of direct water or refrigerant cooling at the rack or board level is now being deployed. This trend of increasing heat densities combined with the interest in energy and waste heat recovery created the need for liquid cooling guidelines to help bridge the gap between IT equipment design and data center facility design, according to Beaty.

Five liquid cooling classes have been created:

W1 - Facility Water Supply Temperature of 2 to 17 C

W3 - Facility Water Supply Temperature of 2 to 32 C

W5 - Facility Water Supply Temperature of > 45 C

W2 - Facility Water Supply Temperature of 2 to 27 C

W4 - Facility Water Supply Temperature of 2 to 45 C

In addition to the classes, the whitepaper provides insight into other considerations for liquid cooling including condensation, operation, water flow rates, pressure, velocity and quality as well as information on interface connections and infrastructure heat rejection devices. This whitepaper follows an earlier whitepaper released in May 2011, "2011 Thermal Guidelines for Data Processing Environments - Expanded Data Center Classes and Usage Guidance," which addresses air cooling in data centers and created new data center environmental classes which expanded the opportunity for chiller-less data centers (fulltime economizers).

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***New Guidance Released to Help Schools Earn Top Marks in Energy Efficiency***

ATLANTA—Inefficient lighting, uncontrolled plug loads and poorly insulated roofs are just few of the factors that can contribute to a failing grade in energy consumption for K-12 school buildings.

Fortunately, guidance is available to help design teams constructing K-12 school buildings cut annual energy use by 50 percent or more using off-the-shelf technology.

To help ensure schools receive an A+ in energy efficiency; owners, engineers, designers, architects and others on the building team are encouraged to download the free Advanced Energy Design Guide for K-12 School Buildings: Achieving 50% Energy Savings Toward a Net Zero Energy Building. The guide is the second to be released in a series which provides recommendations to achieve 50 percent energy savings when compared with the minimum code requirements of ANSI/ASHRAE/IESNA Standard 90.1-2004, Energy Standard for Buildings Except Low-Rise Residential Buildings.

Advanced Energy Design Guides, or AEDGs, allow owners, contractors, consulting engineers, architects and designers to easily achieve advanced levels of energy savings without detailed energy modeling or analyses. Written in partnership with ASHRAE, the American Institute of Architects, the Illuminating Engineering Society of North America, the U.S. Green Building Council and the U.S. Department of Energy, the guides are available for free in electronic form at www.ashrae.org/freeaedg.

"Significant research demonstrates that the quality of the physical environment affects student performance," Shanti Pless, chair of the steering committee, said. "An environment that includes appropriate lighting, sound, temperature, humidity, cleanliness, color and air quality can help students learn better. In many cases, improving these attributes can also reduce energy use."

The new guide features easy-to-follow recommendations for various climate zones and how to implement tips via a series of real-life school construction case studies. Also included is information on integrated design, including best practices, as a necessary component in achieving 50% energy, and the inclusion of a performance path; specifically, offering guidance for early stage energy modeling and annual energy use targets to help with goal setting

Additional design tips include:

- High performance building envelope that is better than Standard 90.1-2004.
- Different ways to daylight 100 percent of the floor area of classrooms, resource rooms, cafeterias, gymnasiums and multipurpose rooms for two thirds of school hours.
- Methods to achieve space-by-space interior lighting power densities that are, on average, 40 percent better than Standard 90.1-2004.
- Ways to reduced exterior (façade, walkway, parking lot and drive) lighting energy consumption.
- Recommendations for computers, vending machines, kitchen cooking equipment, walk-in refrigeration equipment, kitchen exhaust hoods and service water heating.
- Three different HVAC system types that achieve significant energy savings over a typical system.
- Recommendations for commissioning and measurement and verification to ensure that energy savings potentials are realized.
-

The AEDG also addresses the notion that energy efficient buildings are more expensive. "Owners should not expect energy-efficient schools to cost more; they can cost more, but they shouldn't have to. The tips, guidelines and tables included in the newest AEDG for K-12 schools can set building owners on their way to more energy efficient, productive schools in a cost efficient manner," Pless said.

The 50% Advanced Energy Design Guide series follows an earlier six-book series that provided guidance to achieve 30 percent savings. The ultimate goal is to provide guidance to achieve net zero energy buildings; that is, buildings that, on an annual basis, produce more energy than they consume.

ASHRAE, AIA, IES, DOE and USGBC are currently developing the third guide in the 50 percent series, which will focus on medium/big box retail. Publication is targeted for winter of 2012, followed by large hospitals in the spring of that year.

Advanced Energy Design Guide for K-12 School Buildings: Achieving 50% Energy Savings Toward a Net Zero Energy Building is available as a free download at www.ashrae.org/freeaedg.

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