



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

LONDON CANADA CHAPTER #116

<http://LondonCanada.AshraeChapters.org>

Mon Feb 22/2010

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Topic::

## **Hybrid Radiant Heating and Cooling System Design**

### **Mr Dale Hanscomb**

Account Manager - Building Technology Division  
REHAU

## **Meeting - Mon Feb 22/2010**

6:15pm-Dinner

7:15pm - Program

### **Windermere Manor**

Western Research Park

\$35.00 for London Chapter dues paid members  
or \$175.00 for meal plan

\$10.00 for Students with valid student card

\$45.00 for others





## **President's Message:**

As I sit watching the snow blow past the window outside, I can hardly believe that it is already the third week of February... it is less than 4 months until the "year end" golf tournament... Ah yes... Golf...

Last month we had a very interesting and very successful Past President's Night, with 63 people attended the dinner and meeting at the Lamplighter Inn on Wellington Road. We really filled the large room with a lot of very familiar faces.

After our dinner, John Bisset led off the evening of entertainment with a history of the founding of the London ASHRAE Chapter... he originally told me he would probably only be able to speak for 5 or 10 minutes or so... he held the group's undivided attention for a good 40 minutes with many interesting tidbits that brought both chuckles and tears to the eyes of many of the listeners.

We heard a little from Russ Gonder and Wayne Barker, and Brenda Stonehouse stood up to speak about her year as president of the chapter – the first Lady President for ASHRAE London ...

We also heard a message from Don Johnson (currently living in Victoria B.C.) saying hello and best wishes to his friends and former colleagues back here in Ontario.

I would like to take this opportunity to thank all that participated and made this event an evening to remember for some time to come, and a special thank you to Jason Vandenberghe for his hard work in getting the Past Presidents out to the meeting, as well as putting together the special dinner menu and details.

We need to do this function on an annual (maybe every January meeting??) basis... We will have to remember to purchase a few more bottles of wine for next time.

The upcoming meeting on February 22nd will feature a presentation on Hybrid Radiant Heating and Cooling System Design given by Dale Hanscomb of Rehau Inc.

The meeting will be held at the Windermere Manor up near the University on Windermere Road.

The March meeting will be a Refrigeration theme, with Eric Stewart of Innovative Cooling Technologies presenting an overview of Hybrid Geothermal/Thermal Energy Storage Systems that are suitable for medium sized multi-unit residential and light commercial buildings.

The April meeting will be a Technical Tour Night featuring a new TD / Canada Trust Branch recently completed with a number of emerging technologies that reduce energy consumption.

Our dinner will be held in a location soon to be announced, and will be near the technical tour location.

The 2010 Annual ASHRAE London Golf Tournament will be held on June 7th this year... we will be bringing you more details and info on this event in the very near future.

We look forward to seeing you all out to our upcoming meeting...

Eric Shaw  
President - ASHRAE London Canada Chapter



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**Feb 22/2010**

Speaker

**Dale Hanscomb****Account Manager - Building Technology Division  
REHAU**

Dale Hanscomb is the Account Manager in charge of the Building Technology Division of REHAU for Ontario and has been actively involved in Hydronics since 1997. Responsibilities include Radiant Floor Heating/Cooling, Geothermal, Plumbing, Ground Tube systems (Ecoair), and Residential Fire Protection Systems.

His current duties outside of REHAU include participation in the Canadian Institute of Plumbing and Heating and a member of the Technical Committee to update CSA F280 (Sizing of Residential). He previously participated in the following memberships: Vice-Chair of the Hydronics Marketing Group, REHAU member of CASA (Canadian Automatic Sprinkler Association), a member of CHC (The Canadian Hydronics Council) through CIPH and has sat on the education committee for the Ontario Hydronics Council, as well as the planning and execution for the Great Lakes Hydronics Conferences.

**Hybrid Radiant Heating and Cooling System Design**

The presentation will include:

- Radiant heating products
- Radiant design process
- Pipe selection
- Fluid temperatures

**Next Meeting - Mon Mar 29/2010**

Topic: Hybrid Geothermal/Thermal Energy Storage Systems  
Refrigeration theme

Speaker: Eric Stewart  
Innovative Cooling Technologies

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## **Previous Meeting Summary**

The Jan meeting was a Past President night. John Bisset, Russ Gonder and Wayne Barker, and Brenda Stonehouse spoke about how the ASHRAE London chapter was originally formed, some past meetings highlights and memorable members.



Dear members, I joined ASHRAE in 1973, while working in Chicago. I worked across the street from the Sears Tower as I watched it rise from a hole in the ground. I joined ASHRAE at the insistence of my then employer. At the time ASHRAE didn't mean much to me. Just a bunch of books and old fogies. I became active in ASHRAE in 1979. I think John Payne was president then. I spent all of my years from then until I was President and the years after on one committee or another. In 2000, my wife and I moved to the Laurentians on the same lake as Cliff Morrison. I joined the Ottawa Valley Chapter and spent several years on the B.O.G. In 2005, we moved to Vancouver Island and joined the Vancouver Chapter and eventually the Victoria Chapter. So after 37 years of being an ASHRAE member, I'm now a Life Member and an old fogy. With all the places I've been, I'll always remember the London Canada Chapter as one of the best places and best people I've had the pleasure of working with. All the best to everyone.

Regards to all,  
DMR Johnson



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**Memorandum of Understanding with IGBC to Promote Sustainability around the World**

ATLANTA—The signing of a memorandum of understanding between ASHRAE and the Indian Green Building Council (IGBC) represents the country's potential as a market for constructing energy efficient buildings.

The MOU between ASHRAE and IGBC, a not-for-profit organization that promotes energy efficiency in buildings, allows the two societies to share products, jointly promote educational programs and, where appropriate, cross-market each other's products and services.

"IGBC and ASHRAE signed the MOU to share their best practices and information on their research and development; codes and standards for climate change initiatives; and net-zero and energy-plus built environment," Prem Jain, Fellow ASHRAE, Life Member, chair of the IGBC, said. "This will help the international community of designers, builders and researchers to partake in the best of the two eminent organizations dedicated in improving the health of the planet Earth and her inhabitants."

The memorandum is the latest in strengthening ASHRAE's ties with India, a country that's fast growing population demands an even faster growing construction industry; ASHRAE has some 700 members in India with four chapters—India, Western India, South India and Chennai .

"ASHRAE is looking forward to working closely with IGBC," Gordon Holness, ASHRAE president, said. "This memorandum of understanding opens doors to resources, educational material and member expertise that will benefit ASHRAE and IGBC members alike. Most important, a broader knowledge of energy efficient and sustainable building practices will be gained on both sides."

IGBC was formed in 2001 and is a consensus not-for-profit organization representing the building industry, consisting of architects, builders, consultants, manufacturers, institutions and others. The vision of the Council is to facilitate India to become one of the world leaders in green buildings by 2010.

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**Carbon Monoxide Alarms Proposed for ASHRAE Residential Ventilation Standard**

ATLANTA – In a change that would bring its residential ventilation and indoor air quality standard closer in line with that of the 2009 International Residential Code, ASHRAE is proposing that carbon monoxide alarms be required in homes.

Under proposed addendum I to ANSI/ASHRAE Standard 62.2-2007, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings, carbon monoxide alarms would be required to be installed outside of each sleeping area. The proposed addendum is open for public comment until Oct. 26, 2009.

Nine other addenda, unrelated to CO, also are open for review. Steve Emmerich, chair of the Standard 62.2 Committee, said that as the standard becomes more widely used as a result of its adoption into building codes and green building programs, several clarifications are being addressed through proposed changes.

Carbon monoxide (CO) poisoning leads to hundreds of deaths and thousands of injuries each year in homes. Such poisoning results primarily from automobiles left running in attached garages but also from portable generators, power tools and heaters, according to Emmerich. A small fraction of poisonings also result from failed central heating combustion appliances.

"Residents have very little ability to sense the presence of CO without detectors, unlike many other indoor polluting events," he said.

Whether to include CO alarms as a requirement in the standard has been discussed since the standard was first proposed. Debate has focused on the unreliability and cost of alarms. But Emmerich said the committee believes the time has come to make this change, noting that it will bring the standard into closer alignment with the 2009 International Residential Code, which requires alarms if the house has combustion appliances or attached garages, and with many states that have passed laws requiring CO alarms.

"This proposed requirement goes a step further, expanding the protection to all homes, regardless of fuel type or garage configuration, reflecting the fact that many CO exposures occur due to causes completely independent of these factors," he said. "It also requires that alarms be hard-wired with battery backup to address an increased likelihood of high CO exposure events during power outages."

Also open for public comment is proposed addendum s, which would give credits for different types of residential ventilation systems. The proposed change increases mechanical ventilation system flow rates for systems that are unbalanced or not fully ducted, unless they have a provision for mixing. Emmerich said this is a fairly significant change that has been under extensive study by the committee.

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**ASHRAE Makes Information on Datacenters More Accessible in CD Form**

ATLANTA—It is estimated that \$2 billion is wasted nationally due to data center inefficiencies. That's why the valuable information found in ASHRAE's Datacom Series—which provides guidance on ways to plan, build and monitor datacenters in ways that are both energy efficient and cost effective—has been compiled into one easily searchable CD.

The "Data Center Design and Operation-ASHRAE Datacom Series" CD will allow a user to search across all previous published books in the Datacom Series simultaneously, as well as have the option to either print information directly from the CD or copy or paste into another document.

The need for guidance on data center energy is enormous—in 2006 alone, for every dollar spent worldwide on new servers, another 50 cents was spent on energy to power and cool them. Datacenters in the United States consume 1.5 percent of all electricity used in the country and with historical trends this consumption is predicted to rise to 2.9 percent by 2011.

"ASHRAE Technical Committee 9.9 has taken the lead in the IT and HVAC communities by producing a series of publications that provide the necessary guidance," Stephen Comstock, ASHRAE publisher, said. "The intent of the CD is to bring these resources together in a format which allows for easy search and quick access. Annual updates will be available so users have the most current information available."

The ASHRAE Datacom series provides a comprehensive treatment of datacenter cooling, energy efficiency and related subjects, such as structural and vibration guidelines and equipment power trends.

Currently, the titles that make up the new CD include the following, though the CD will be updated as more books are released in the series:

- Thermal Guidelines for Data Processing Environments, Second Edition
- Best Practices for Datacom Facility Energy Efficiency, Second Edition
- High Density Data Centers
- Datacom Equipment Power Trends and Cooling Applications
- Design Considerations for Datacom Equipment Centers, Second Edition
- Liquid Cooling Guidelines for Datacom Equipment Centers
- Structural and Vibration Guidelines for Datacom Equipment Centers
- Particulate and Gaseous Contamination in Datacom Environments

The Datacom CD costs \$235, \$199 for ASHRAE members, and can be purchased through ASHRAE's online bookstore at [www.ashrae.com/bookstore](http://www.ashrae.com/bookstore). More information about the entire Datacom Series can be found at [www.ashrae.com/datacom](http://www.ashrae.com/datacom).

**ASHRAE Headquarters Receives Highest LEED Certification**

ATLANTA—ASHRAE has always prided itself on providing the gold standard in research, standards writing, publishing and continuing education. However, when it comes to energy efficiency and sustainability, gold just isn't good enough: That's why the ASHRAE Headquarters has gone a step further and has been awarded a LEED Platinum Certification in the New Construction 2.2 rating system.

The Society's office building in Atlanta, Ga., which underwent a major renovation in 2008, is one of only six buildings in the state of Georgia to receive a LEED Platinum rating, the highest certification the program offers. LEED, which stands for Leadership in Energy and Environmental Design, is a program of the United States Green Building Council (USGBC), a non-profit which seeks to promote green building practices.

"While our first objective was to provide a healthy, comfortable and productive environment for our staff, we also wanted to set an example of what can be done to renovate existing buildings," ASHRAE President Gordon Holness said. "Given that 75 to 80 percent of all existing buildings will still be around in 2030, our greatest opportunity for a sustainable future is through the upgrade and retrofit of these buildings. It is extremely gratifying to achieve the USGBC's highest rating and confirm ASHRAE's leadership and commitment to supporting a sustainable built environment."

"The strength of USGBC has always been the collective strength of our leaders in the building industry," said Rick Fedrizzi, President, CEO & Founding Chair, U.S. Green Building Council. "Given the extraordinary importance of climate protection and the central role of the building industry in that effort, ASHRAE demonstrates their leadership through their LEED Platinum certification of their renovated Headquarters."

LEED takes into account five key measurements when evaluating new construction: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. Bonus points may be obtained through innovation in design and regional priority.

In order to qualify for the highly sought-after Platinum certification, ASHRAE took into consideration a number of concerns such as energy use, heat island reduction, water efficient landscaping, material reuse and water use reduction, to name just few.

ASHRAE addressed these issues, among others, by installing a cool, white reflective roof membrane to minimize heat island effects; updating the landscaping and eliminating the need for landscaping irrigation; retaining more than 75 percent of the existing building structure as part of this renovation; and reducing its estimated overall annual water consumption per year by almost 50 percent by utilizing low-flow fixtures throughout building. Additionally, the ASHRAE headquarters received bonus points for innovation and design.

As a leader in energy efficient technology, ASHRAE viewed its headquarters renovation as the perfect way to "walk the talk." The 34,500 ft<sup>2</sup> office building, built originally in 1965, now acts as a showcase of energy efficiency and sustainability through its living lab—which provides recourses on building, system and equipment performance—and learning center.

The LEED Platinum Certification acts as third-party verification of ASHRAE's efforts to create an environmentally friendly, energy-efficient, sustainable workplace.





A free webcast from ASHRAE

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# Right from the Start— Commissioning for High Performing Buildings

**April 21, 2010**  
1:00–4:00 PM EDT

# Who are the speakers?



**Ronald Wilkinson**, P.E., LEED™ AP,  
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AKF Group LLC, New York, NY

## Myth Busters

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This webcast will provide tools to help you overcome the hurdles of Commissioning, learn the “What, Why, When and Who” of the process, and how you can make it “business as usual.” The panel of experts will outline how Commissioning supports a smoother construction process, maximizes the quality and persistence of energy and cost reductions, and provides a facility that operates as it was intended.

The program will:

- Dispel common myths about Commissioning
- Show you how to make the Commissioning process work for you
- Clarify how to avoid or reverse performance decay
- Demonstrate through Case Studies how Commissioning improves ROI



**Michael L. Weiss**, Ph.D. ABD, HCCP,  
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## Integrating Commissioning into Integrated Design

### How do I register?

Online registration will begin March 2, 2010 at [www.ashrae.org/CxWebcast](http://www.ashrae.org/CxWebcast). There is no fee for registration. If you have any questions, e-mail us at [ashrae-webcast@ashrae.org](mailto:ashrae-webcast@ashrae.org) or call 678-539-1200.



**Rick Casault**, P.E., CCP, CDT, President,  
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## A Solid Foundation for Commissioning—Two Proactive Steps to Greater Benefits

### Can I learn PDHs?

Yes! Three (3) Professional Development Hours (PDHs) or (3) AIA Learning Units may be awarded to viewers who complete the “Participant Reaction Form” following the webcast.

### More about the webcast

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## Transition from Construction to Operation—Maximizing Performance for Life

### How can I participate?

- Host a webcast site for your colleagues
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### How can I become an ASHRAE member?

We encourage you to join ASHRAE, a leader in sustainability and the source for the latest technology in HVAC&R. To find out more about ASHRAE membership, visit [www.ashrae.org/membership](http://www.ashrae.org/membership).

This free webcast is sponsored by the ASHRAE Chapter Technology Transfer Committee with support from ASHRAE's High Performing Buildings Magazine.