



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

LONDON CANADA CHAPTER #116

<http://LondonCanada.AshraeChapters.org>

TUE APRIL 17/2007

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TOPIC:

COMBAT MOLD WITHOUT REHEAT “The Control of Temperature and Humidity without Conventional HVAC Systems”



Evans J. Lizardos, P.E.

ASHRAE Fellow and Distinguished Lecturer
Lizardos Engineering Associates, P.C.
Mineola, NY

Meeting - Tues April 17/2007

THE LAMPLIGHTER INN, 591 Wellington Rd., London

MEMBERSHIP NIGHT

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

CASH BAR
5:15-Social

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





President's Message

I would first off like to extend on behalf of the ASHRAE London Chapter our condolences to Mr. Lizardos on the passing of his brother. We truly appreciate his ability to re-schedule his presentation for Tuesday, April 17th, please join us for this event.

Hugh Palser has faxed out the Golf Tournament sign up sheets confirming Monday June 4th at Forest City National anyone wishing further information or if you did not receive a sign up sheet, you may want to contact Hugh via email at hpalsen@palsernet.com

The ASHRAE year is quickly coming to a close, which brings a time for nominations. Last month Dennis Dawe opened the floor for nominations for next years ASHRAE London Chapter Board of Governors, anyone wishing to run for a position should contact Dennis at dennis.dawe@chorley.com. The floor will remain open till the Golf Tournament in June.

Hope to see you on the 17th !!

Scott Turner
London Canada Chapter President 2006-2007

Speakers Bio

Evans J. Lizardos, P.E. is Founder and President of Lizardos Engineering Associates, P.C., a 75-person mechanical and electrical consulting engineering firm located on Long Island, a suburb of New York City. The company turns 40 in April 2005 and is engaged in the design and analysis of all aspects of building systems. Evans serves as Chief Mechanical Engineer for the firm and holds regular technical sessions for the engineering staff. As a LEED 2.1 Accredited Professional, Evans has held several in-house LEED workshops, which encouraged 16 members of the LEA staff to also obtain their LEED certification.

Evans served as President of the Long Island Chapter of ASHRAE, and was elevated to the grade of ASHRAE Fellow in 1988. He was Vice Chairman of the of 1998 ASHRAE Refrigeration Handbook, and is past Chairman for 11 chapters of the ASHRAE Handbook Committee. Currently, he is Chairman for 18 chapters of the ASHRAE Refrigeration Handbook and a contributing author for the 1996 edition of the Complete Building Equipment Maintenance Desk Book.

In addition, ASHRAE has awarded Evans for his professional accomplishments and service to the community with the ASHRAE ALCO Award for Distinguished Public Service, the ASHRAE Past Presidents Award for continued service to the Long Island Chapter, the ASHRAE New York City Chapter Award for his service and devotion to the organization, and the ASHRAE Distinguished Service Award.

He has received certification by the Association of Energy Engineers as an Energy Manager, Demand-Side Management, Indoor Air Quality, and Cogeneration Professional. He was a lecturer for ASHRAE, IEEE, AEE and ASME sponsored courses and was an instructor for a Hofstra University curriculum in Process, HVAC and Industrial Controls.

ASHRAE London March presentation will be on "Innovative Airside Systems Designed to Conform to ASHRAE 90.1 and Improve IAQ and Avoid the Use of Reheat". This lecture covers Existing or new HVAC system to precondition outside air that is being used for ventilation to prevent mold growth in buildings.

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March Meeting Summary

The March meeting required a last minute change to the program due to Mr Lizardos not being able to travel to London for his presentation. We were able to obtain from Derek Vakaras and Charley & Bisset a previous technical presentation by ASHRAE on Sustainability and the Building Environment.



ASHRAE SATELLITE BROADCAST & WEBCAST

Wed April 18, 2007

Indoor Environmental Design:
Practical Solutions to Everyday Problems

This free broadcast will present specific solutions to the everyday challenges of achieving indoor environmental quality within real-world budget constraints. Speakers will describe how you can provide ventilation air that helps protect the building from mold risk, how to avoid the three most common mistakes in ventilation system design and operation, how to achieve all three goals of IAQ, thermal comfort and noise control at lower cost through better air distribution decisions, and how to provide comprehensive filtration without breaking your budget. This program is sponsored by ASHRAE's Chapter Technology Transfer Committee

Online registration for site coordinators and webcast viewers begins March 1. Registration for satellite viewers begins March 15. Information about the speakers and program is available at:

www.ashrae.org/iedbroadcast

A \$50 discount off a one-year membership will be extended to anyone who joins ASHRAE as a new member in conjunction with the broadcast. See website for details.

Next Meeting - Mon June 4/2007

LONDON & AREA
ASHRAE GOLF TOURNAMENT

FOREST CITY NATIONAL
London, Ontario

(see this newsletter for registration form)

Golf Tournament Organizer

Hugh Palser

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**ASHRAE Technology Awards Highlight Outstanding Building Projects**

ATLANTA – A range of innovative technologies, including natural ventilation, use of grey water and incorporation of phase change materials, are highlighted in the winning ASHRAE Technology Award projects.

The awards recognize members' exceptional achievements that incorporate elements of innovative building design in the areas of occupant comfort, indoor air quality (IAQ) and energy conservation. Winners have applied ASHRAE standards for effective energy management and IAQ. The awards were presented at ASHRAE's 2007 Winter Meeting being held this week in Dallas.

Matt Younger, P.E., principal of Stantec Consulting, Seattle, Wash., received first place in the new health care facilities category for his design for the Washington Department of Veterans Affairs, Retsil, Wash.

The fully naturally ventilated building features large, independently operated windows that aid with a passive cooling system. The system's design is predicted to save 45 percent over Standard 90.1 requirements, even without taking into account the deletion of comfort cooling requirements because the building is naturally ventilated.

Younger used intensive thermal modeling as a critical design tool on this project. Through testing of different design parameters, a whole-building integrated design solution was developed.

Receiving first place in the new industrial facilities or processes category are Pierre Roussel, P.E., vice president of the mechanical division, and Jacques Lagace, P.E., vice president of innovation and major projects, at Bouthillette Parizeau & Associates for their design of the thermal plant at the Pierre-Elliott Trudeau Airport in Montreal, Quebec, Canada.

One of the challenges they faced was the proximity of the air traffic control tower and the possibility of the smoke plume from boiler combustion gases interfering with traffic control activities.

The team designed a system to avoid this scenario, incorporating measures such as running the boilers' flue gases through a direct contact economizer to cool them using grey water. This also allows the system to reclaim the heat and creates efficiency of up to 99 percent.

Daniel Pare, project manager for IBM in Bromont, Quebec, Canada, received first place in the existing industrial facilities or processes category for his design for an IBM semiconductor packaging facility in his hometown.

His use of a thermal energy system with phase change materials combined with free cooling, a variable frequency drive chiller and predictive algorithm control is a first in North America. Phase change materials are substances that can accumulate and release energy during phase change. In this case, a change from liquid to solid.

His design will produce energy savings of six percent annually in part by using artificial phase change materials in the chiller with different melting points between 28°F and 40°F. The system also uses a natural cooling exchanger, which runs from September to May to take advantage of Mother Nature's natural cooling season.

Honorable mention winners are as follows:

- Ronald Gagnon, president, Concept-R Inc., Sorel-Tracy, Quebec, Canada, new commercial buildings category, Comptoir Richelieu Botanix, Sorel-Tracy, Quebec, Canada.
- George Karidis, P.E., vice president and director of mechanical engineering, SmithGroup Inc., Detroit, new commercial buildings category, Visteon Village's corporate headquarters in Van Buren Township, Michigan.
- Ronald Henning, P.E., principal, SmithGroup Inc., Detroit, new institutional buildings category, University of Michigan's Life Sciences Institute, Ann Arbor, Michigan.
- Norman J. Brown, P.E., principal, CDi Engineers, Lynwood, Wash., public assembly category, Seattle Center Marion Oliver McCaw Hall Renovation, Seattle, Wash.

ASHRAE, REHVA Partner to Encourage Sustainability

ATLANTA - ASHRAE and the Federation of European Heating and Air-Conditioning Associations (REHVA) have formalized a longtime relationship through signing of a new memorandum of understanding. The memorandum, signed today at ASHRAE's 2007 Winter Meeting, calls for increased cooperation between the two associations.

"The challenges of the insecure energy situation and the public's request for better and more secure buildings are huge," Olli Seppänen, president of REHVA, said. "ASHRAE and REHVA must work together to find the best sustainable technology for superior indoor environment for buildings. Coordination and cooperation is needed so that duplication of efforts is avoided and that the limited resources are used most efficiently."

Europe is committed to a strong energy policy, Seppänen noted. The goal for energy saving is set at 20 percent by the year 2020 in Europe. Steps toward this goal include an energy efficiency and energy services directive from April 2006 that sets the goal for energy savings in the member states at 1 percent per year during the next nine years, and requests national energy efficiency plans in June 2007. The European commission also prepares a directive for minimum energy performance standards for 14 priority energy products in 2007.

ASHRAE is pursuing a similar goal, with hopes of achieving net-zero energy use by the year 2020.

"This agreement strengthens the long-time relationship between ASHRAE and REHVA," Terry Townsend, president of ASHRAE, said. "We must continue to work together to gain technical knowledge and to share it. The engineers who belong to ASHRAE and REHVA are searching for new technology and guidance to develop safe, comfortable, healthy energy-efficient buildings. This agreement encourages our organizations to work together to ensure more sustainable environments all around the world."

REHVA represents 30 national engineering associations in Europe representing more than 100,000 experts in the area of heating, air-conditioning, ventilation and refrigeration. It is based in Brussels, Belgium.

**ASHRAE Members Get Energized in Dallas**

ATLANTA – The adage that everything is bigger in Texas proved true for the 2007 ASHRAE Winter Meeting held last week in Dallas.

ASHRAE can boast of a large turnout for overall meeting attendance, record attendance at social events, and high attendance at the International Air Conditioning, Heating, Refrigerating (AHR) Exposition cosponsored by ASHRAE and the Air-Conditioning and Refrigeration Institute (ARI).

"Obviously our members took the meeting theme of 'get energized in Dallas' to heart," Terry Townsend, P.E., ASHRAE president, said. "Our meetings are an integral part of our Society, providing attendees with a first-hand look at the latest technology and allowing them to advance their education, network with fellow members from all over the world and influence technology."

The ASHRAE meeting had a total attendance of 2,634, an increase of nearly 200 over the 2006 Winter Meeting in Chicago. Registration for social events, also up over previous years, was more than 800 for the Welcome Party; more than 600 for the president's luncheon; and 557 for the Members' Night Out.

Two big events were motivational speaker Diana Nyad, who received a standing ovation for her inspiring story about setting the world record for completing the longest swim in history – 102.5 miles from the coast of Bimini to the Florida shore, and Dennis Dimick, executive editor at National Geographic Magazine, who discussed three 2004 National Geographic magazine articles, "Signs from Earth" that document emergent effects of climate change observed worldwide.

Top-selling publications at the meeting were the new ASHRAE GreenGuide: The Design, Construction and Operation of Sustainable Buildings; HVAC Simplified, the Advanced Energy Design Guide for Small Retail Buildings and the ASHRAE Handbook CD+.

The ASHRAE Learning Institute courses also were well-attended by nearly 1,000 people. The top-drawing courses dealt with green buildings, Standard 90.1, health care facilities design and commissioning.

The AHR Expo, sponsored by ASHRAE and ARI also proved to be "Texas-sized" with 1,789 total exhibiting companies and 354,057 square feet of net exhibit space. Total Expo attendance topped 47,000, including 28,130 visitors and 19,065 registered exhibitor personnel.

Comparatively, the first co-sponsored show in the Southwest held in Dallas in 1976 drew 284 exhibiting companies and 90,197 square feet of net exhibit space.

ASHRAE will hold its 2007 Annual Meeting in Long Beach, June 23-27, followed by its 2008 Winter Meeting, Jan. 19-23 in New York, accompanied by the AHR Expo, Jan. 22-24.

BACnet Access Control, Lighting, Network Addenda Approved for Review

ATLANTA – Six proposed addenda to ASHRAE's BACnet standards have been recommended for public review.

The addenda are expected to be released for public review March 16, 2007. If approved, they would become part of Standard 135, BACnet® - a Data Communication Protocol for Building Automation and Control Networks, and Standard 135.1, Method of Test Conformance to BACnet®.

"This was a barnstormer session," said BACnet chairman Bill Swan. "The committee has been working hard to expand BACnet's coverage of building systems, and several items came out together."

Proposed addendum j to BACnet-2004, will add physical access control to BACnet's support for building automation.

"Our committee has worked on these proposals for four years to ensure that we address the state-of-the-art practices of the security industry while building on the proven BACnet platform," said David Ritter, convener of the BACnet Life-Safety and Security Working Group, which is comprised of representatives from both the HVAC and physical security industries from around the globe.

Addendum j rounds out the working group access control extensions to BACnet, which began with the Access Door object presented in addendum f. The committee is actively soliciting comments on these extensions from the access control industry.

Proposed addendum g to 135-2004, a new means for securing BACnet network communications, provides part of the base on which proposed addendum j is built. Developed by the Network Security Working Group, addendum g draws on significant advances in encryption and authentication technologies since BACnet became a standard.

"This system is very flexible," said Dave Robin, BACnet Network Security Working Group convener. "You can scale it up for high security or way down for simplicity. It provides multiple levels of access, with a general key for read/write access to basic system data, and application-specific keys plus authentication for critical systems including access control and fire."

Robin also notes that "with addendum g going out for its second public review, with little changed from first public review, trial implementations are underway."

Proposed addendum 135-2004 i presents several extensions to the BACnet standard to support lighting control systems. Said Steve Karg, Lighting Application Working Group convener, "These extensions are aimed at supporting both sophisticated and simple lighting systems." The working group, comprised of representatives from lighting controls manufacturers and BACnet experts, has been working for several years on developing lighting extensions to BACnet.

The BACnet committee continues its work on a broad range of items including developing profiles for VAV controllers and VFDs, incorporating wireless capabilities, accommodating and adopting new IP technologies; and extending conformance testing to cover new BACnet capabilities.

Also recommended for review are 135h, which would include miscellaneous changes to the standard; 135.1b, involving new and revised tests, and 135.1c, updating references in 135.1 from 135-2001 to 135-2004.

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The first administration of the examination for ASHRAE's Healthcare Facility Design Professional certification program will take place the morning of June 28, 2007, in Long Beach, CA, immediately following the 2007 ASHRAE Annual Meeting.

Please visit www.ashrae.org/certification for eligibility requirements and other related information. Membership in ASHRAE is not required for participation in the program. However, ASHRAE members will receive a discounts on the price of the certification examinations.

www.ashrae.org/certification

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23-27**

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****these Standards are expected to be released in June!**

Continuous Maintenance Standards to Include:

- ☐ Standard 90.1-2007, Energy Standard for Buildings Except Low-Rise Residential Buildings (I-P and SI)
- ☐ Standard 90.1-User's Manual
- ☐ Standard 90.2-2007, Energy Efficiency Design of Low-Rise Residential Buildings
- ☐ Standard 62.1-2007, Ventilation for Acceptable Indoor Air Quality
- ☐ Standard 62.1 User's Manual
- ☐ Standard 62.2-2007, Ventilation for Acceptable Indoor Air Quality
- ☐ Standard 52.2-2007, Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size
- ☐ Standard 140-2007, Method of Testing for the Evaluation of Building Energy Analysis Computer Programs
- ☐ Standard 15-2007, Safety Standard for Refrigeration Systems
- ☐ Standard 34-2007, Designation and Safety Classification of Refrigerants



New Standards to Include:

- ☐ Standard 124-2007, Method of Testing for Rating Combination Space-Heating and Water-Heating Appliances
- ☐ Standard 183-2007, Peak Cooling and Heating Load Calculations in Buildings Except Low-Rise Residential Buildings

Reaffirmations to Include:

- ☐ Standard 32.3-2003 (RA 2007), Methods of Testing for Rating Pre-Mix and Post-Mix Beverage Dispensing Equipment

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GOLF TOURNAMENT

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