



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

LONDON CANADA CHAPTER #116

<http://LondonCanada.AshraeChapters.org>

Mon Apr 27/2009

Board of Governors

President

Eric Shaw
ph: 519-964-0022
eshaw@baymarsupply.com

Vice President & Program

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

Treasurer

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

Secretary

Jamie Kruspel
ph: 519-667-3445
jamie.kruspel@td.com

Committee Chairs

Research

Scott Edmunds
ph: 519-667-4108
sedmunds@uniongas.com

Membership

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

Student Activities

Ibrahim Simhat
ph: 519-681-1221
ibrahim.semhat@jci.com

Historian

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

Golf Tournament

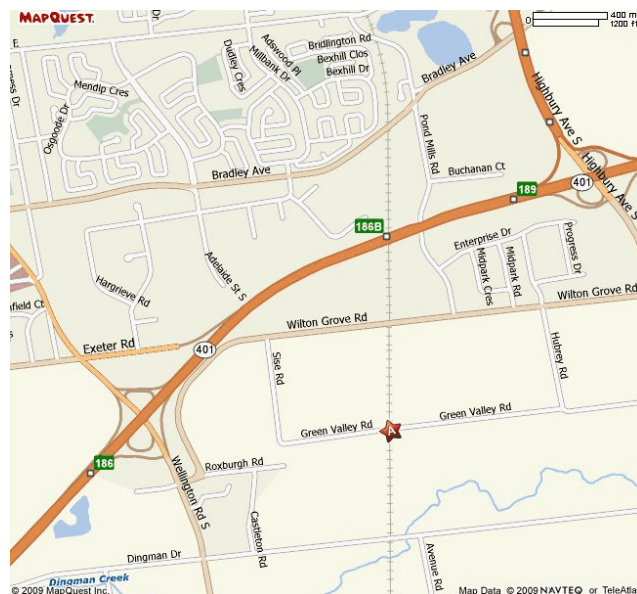
Hugh Palser
ph: 519-471-9382
hpalser@palserent.com

Newsletter

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

TOPIC:

Tour - Power House and Dehumid System CASCO INC 1100 Green Valley Rd, London



Meeting - Mon APRIL 27/2009

Plant Tour - 4:45pm

Meet at the Entrance

Diner after the tour at the
Four Points Sheraton





Upcoming Meeting - Plant Tour

A plant tour has been scheduled for the April meeting. Please meet at 4:45 at the Casco Inc, 1100 Green Valley Road, London

There will be short presentation followed by a tour of the power house by Gary Zions (Chief Engineer) and the dehumid system by Rod McIntosh (project manager for that work).

The plant includes a Co-Gen facility in-house with 3 gas turbines that produce 13 MW of electricity, as well as steam that is used in the production of corn syrup and other products.

PLEASE RSVP to Jamie Kruspel
email: jamie.kruspel@td.com
or phone: (519) 667-3445

Upcoming Meeting

Mon June 1/2009 Annual Golf Tournament

Golf Registration

There just a few group openings left - please contact Hugh Palser (email: hpalser@palserent.com fax 519-471-1049) if you have not indicated that you will have a group. Hugh would also appreciate any donations to the prize table.

Golf Hole Sponsors

In place of a single event sponsor, this year companies can sponsor a hole and help ASHRAE Research Canada. Please forward \$200.00 per hole. There is a sponsor form on the chapter web site or for more information contact Scott Edmunds 519-667-4120 <sedmunds@uniongas.com>.

All groups and sponsors must have payments to Hugh Palser before the event.

Student Sponsors

The ASHRAE London Student Chapter needs sponsors to help offset costs for the student meets and their registrations.

If you are able to assist in sponsoring a student, please contact:

Jack Maynard
email: Jack.C.Maynard@jci.com

Chapter Elections

The ASHRAE London chapter needs some people to fill openings in the board of directors and chair positions. Elections for the 2009-2010 year are now open. If you are interested in a position, can help out in any way, or wish to nominate someone, please contact a chapter executive. Chapter elections will be open until May 13/2009



BAYMAR

SUPPLY LTD.

Eric W. Shaw

Sales Manager, London District

241 Consortium Crt.
London, Ontario N6E 2S8

Tel: (519) 964-0022

Cell (519) 851-8000

Fax (519) 680-7039

eshaw@baymarsupply.com

www.baymarsupply.com



York

MITSUBISHI ELECTRIC

VENMAR

SIEMENS

Siemens Building Technologies, Ltd.

514 Newbold Street
London, Ontario

N6E 1K6 / Canada

Tel: (519) 680-2380 ext. 2805

Fax: (519) 680-2410

eric.salin@siemens.com

www.siemens.ca/buildingtechnologies

Eric Christopher Salin
Account Executive
Building Automation, Security,
Integrated Building Technologies

Phone: (519) 268-3166
Fax: (519) 268-3165
Web Site: www.eriesheetmetal.com

HEATING
VENTILATING
CUSTOM FABRICATING

ERIE
SHEET METAL
INC.
COMPUTERIZED PLASMA CUTTING
INDUSTRIAL - COMMERCIAL

JOE LEGUE
President

248 HAMILTON CRESCENT
DORCHESTER, ONT. N0L 1G1

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: info@efi-ironross.com

NORTHERN INDUSTRIAL

— FANS & BLOWERS —

SCOTT C. DEAN, P. Eng.

Tel: (519) 740-7000

Fax: (519) 740-0051

1-888-FAN-COIL

niscont@iprimus.ca



4-122 Earl Thompson Rd, AYR, ON N0B 1E0



March 30/2009 Meeting Summary

The chapter meeting was held at UWO to allow the engineering students to attend the meeting. The student chapter has been restarted due to the efforts of Ibrahim Simhat

Joel Primeau visited from Ottawa where he is the Director of Sustainable Design for GENIVAR

Joel spoke on some of the issues involved with energy efficient design of buildings including to requirements for coordination between the various disciplines and problem of delivery of engineering services. Joel used some charts to present the time lines when dealing with architectural services as compared to engineering services that require some initial calculations before anything can be presented.

President's Message:

As April moves to a close, and the warm weather is threatening; many challenges are beginning to present themselves to us all.

General Motors and Chrysler Corp. are fighting for their lives, and as each day passes, appear to be closer to filing for bankruptcy.

The financial markets are on pins and needles wondering what will happen next. The automotive industry is coming to an abrupt change in the road that it is on – hopefully a good long term solution will come out of all of the turmoil.

The ASHRAE Satellite Broadcast ran as planned on Wednesday April 22nd – The London Chapter (with the assistance of the UWO) hosted the broadcast locally in London with a small group of local members and several students.

The topic was "Clean, Lean, and Green – IAQ for Sustainable Buildings," which focused on the application of ASHRAE Standard 62, and ASHRAE 90.1, as well as highlighting the new and soon to be released Design Guide – "IAQ Guide: Best Practices for Design, Construction, and Commissioning" which will be available through the ASHRAE Bookstore in June.

Our Technical Tour of the London CASCO Plant Co-Gen Facility and the AIR Drier Process System will go ahead on Monday evening as planned – we will meet at 4:45pm at CASCO, and will host a dinner at the Four Points Sheraton Hotel on Wellington Road afterwards.

The Golf Tournament planned for June 1st is filling up – there are only a few foursomes left, and a few hole sponsors are still required. For more information, please contact Hugh Palser at Palser Enterprises at (519) 471-9382.

The local chapter is looking for some new faces to join the Board of Governors – a need for the presence and participation of some new people with fresh ideas to help direct and lead the chapter in the years to come.

Anyone who would be interested in participating, or assisting with one of the positions on the board should speak to one of the executive and indicate your interest.

We look forward to seeing you all at the tour, and at the golf tournament in June.

Eric Shaw
ASHRAE London Canada Chapter President

**SOMERS** ENVIRONMENTAL PRODUCTS INC.

Daryl Somers, CET

96 Meg Drive
London, Ontario
N6E 3T7Tel: (519) 681-1977
Fax: (519) 686-9324
Mobile: (519) 670-7720

email: daryl@somersep.com

Norm Clarke, P. Eng.
District Manager**TRANE**Trane Canada
8 Belleisle Court
London, On N5V 4L2
Tel 519 453 3010
Fax 519 453 3024Windsor Tel 519 256 7922
Sarnia Tel 519 337 0740

Jason Vandenberghe Technical Sales Representative



Sales & Marketing Inc.

4390 Paletta Court Burlington, ON L7L 5R2

Bus: (905) 631 5815 Fax: (905) 637 8655

G.T.A. Bus: (647) 288 0980 Cell: (519) 670 8066

Email: jasonv@aquatech.ws

www.aquatech.ws

Jim Bender, P.Eng.
Contracting Sales#6 - 320 Neptune Cres.
London, ON N6M 1A1
Tel: (519) 457-6700
Fax: (519) 457-8900
bender@htseng.com

Toll Free: (800) 341-3110

Hugh D. Palser
Presidenthpalser@palserent.com
www.palserent.comLondon, Ontario
tel. 519-471-9382
fax. 519-471-1049
cell. 519-660-9135Concord, Ontario
tel. 905-738-5200
fax. 905-738-6111**CONTROL SYSTEMS INC.**

Your Partner in Energy Savings...

www.durellcontrols.com

Bob Durk - Manager

bdurk@durellcontrols.com

Phone (519) 652-5502

Fax (519) 652-0265

3392 Wonderland Rd. S., Bldg. 9, Units #1 & 2, London, Ontario N6L 1A8



BACnet





Advanced Energy Design for Small Office Buildings

ASHRAE eLearning is an optimal way to train yourself and your staff while earning PDHs and avoiding travel costs. ASHRAE's newest eLearning course is Advanced Energy Design for Small Office Buildings. The course explains the design concepts, strategies, and recommendations for constructing energy-efficient small office buildings. It is based on ASHRAE's Advanced Energy Design Guides which are intended to achieve 30% energy savings over the code requirements of ASHRAE/IESNA Standard 90.1-1999.

The course is 100% online, and because it is on-demand, instruction is available when you are available. The course can be taken in one sitting or through return visits to the ASHRAE eLearning website.

ASHRAE Publishes Updated Guidance for Buildings in Hot and Humid Climates

Expanded and revised guidance on keeping heat and humidity out of buildings in hot and humid climates is contained in a new book from ASHRAE.

The second edition of The ASHRAE Guide for Buildings in Hot and Humid Climates, is expanded from 124 to 316 pages and based on years of questions, comments and suggestions from practicing architects, engineers and building managers who work in hot and humid climates, according to author Lew Harriman.

The book includes four new chapters to guide architectural design toward reduced energy consumption, reduced mold risk and lower-cost mechanical systems. The HVAC&R design section has also been expanded. Six new chapters help system designers quantify and reduce cooling and dehumidification loads, design more economical ventilation systems and save more than 25 percent of annual HVAC&R energy through low-cost sealing of air distribution components. Suggestions for contractors are also provided to reduce mold risk and prevent scheduling problems through simple improvements to jobsite practices as well as through modern drying technology.

Chapter summaries allow building professionals to quickly understand the big picture issues and to understand the logic behind suggested best practices for hot and humid climates. The book also provides specific, actionable suggestions for implementing ASHRAE standards for comfort, ventilation and energy efficiency in parts of the world where high heat and humidity can occur at any time of the year.

The cost of The ASHRAE Guide for Buildings in Hot and Humid Climates, expanded second edition, is \$116, non-members (\$99, ASHRAE 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.

ASHRAE, GBI Pledge to Collaborate to Promote Building Sustainability

Through a new memorandum of understanding, ASHRAE and the Green Building Initiative (GBI) will work together to accelerate the adoption of sustainability principles in the built environment.

The agreement was approved by ASHRAE and by the GBI Board of Directors during their winter meetings.

"ASHRAE supports a wide variety of programs that encourage the sustainable design and operation of buildings," Bill Harrison, ASHRAE president, said. "Tools such as GBI's Green Globes rating system help to provide metrics through which building owners and operators can gauge a building's sustainability performance. Pushing forward the built environment to improve sustainability will require a collaborative effort among a myriad of organizations. ASHRAE looks forward to collaborating with GBI and other organizations."

"The GBI is delighted to finalize this agreement and begin working with ASHRAE on our shared goal of increasing sustainable building principles," said Ward Hubbell, President of the GBI. "Improving the built environment is an enormous task and we can't afford to just focus on new construction. An important aspect of this agreement is that both organizations will work to promote the importance using actual performance data to ensure that our buildings are performing in an efficient and environmentally-friendly manner."

Specifically, the agreement calls for the two groups to

Promote the design, construction and operation of buildings that are energy-efficient, healthier and environmentally responsible by, among other things, providing education and training;

Provide access to the Green Globes tool;

Promote the link between sustainable design and actual performance outcomes;

Encourage and/or undertake research that identifies specific economic and environmental benefits of green building practices;

Support and promote green building standards, certification programs and rating systems.

ABOUT THE GREEN BUILDING INITIATIVE: The mission of the Green Building Initiative is to accelerate the adoption of building practices that result in energy-efficient, healthier and environmentally sustainable buildings by promoting credible and practical green building approaches. A not-for-profit education initiative, the GBI is supported by a broad cross section of organizations and individuals with an interest in residential and commercial construction. For more information on the Green Building Initiative, please visit www.thegbi.org.

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.

**Economic Stimulus Bill Reinforces Importance of Energy-Saving Standard 90.1**

In the economic stimulus package just signed into law by President Obama, ANSI/ASHRAE/IESNA Standard 90.1-2007 and its energy-saving features are recognized through special funding measures.

For states to receive additional funding from the \$16.8 billion allotted to the Department of Energy, Office of Energy Efficiency and Renewable Energy, governors would be required to work toward implementation of a building energy code at least as stringent as Standard 90.1-2007 and to develop a plan for achieving 90 percent compliance with the code, including provisions for training and enforcement programs.

"For more than 30 years, Standard 90.1 has been one of the building industry's most important benchmarks for energy efficiency," says ASHRAE President Bill Harrison. "Its inclusion in the economic stimulus package demonstrates not only its importance in the building industry, but the importance and economic potential of saving energy and promoting energy-efficient technologies."

Standard 90.1 provides minimum requirements for the energy-efficient design of buildings in the United States, except low-rise residential buildings. Written during the 1970s energy crisis, ASHRAE Standard 90.1 first was published in 1975 as an effort to cut energy use in buildings. The 2004 version of the standard is referenced in the U.S. Energy Policy Act, which requires states to adopt commercial building codes that meet or exceed the standard's requirements.

ASHRAE has set a goal of making the standard 30 percent more stringent over the 2004 version by the 2010 publication.

The stimulus package, the American Recovery and Reinvestment Act, focuses on economic stimulus through both tax credits and public-sector spending, with a heavy focus on infrastructure and energy. Several provisions are of interest to and could bring new opportunities to the building sector, including:

Tax credits for the production of renewable energy are extended until at least 2012

Research expenses associated with renewables, conservation, and carbon capture and sequestration could result in higher credits in 2009 and 2010

The Department of Energy is authorized to provide grants up to 30% of the cost of installation of items such as fuel cells, solar, small wind, geothermal heatpumps, and combined heat and power systems

Department of Energy, Energy Efficiency and Renewable Energy receiving \$21.4 billion for research, weatherization assistance, grants and other programs

Department of Labor receiving \$750 million for job training, with significant focus on emerging industry sectors including energy efficiency and renewable energy

Federal agencies are receiving considerable funds for retrofitting and upgrading existing facilities to meet federal energy and water use requirements and alleviate any maintenance backlogs

For more information on ASHRAE government affairs, please visit www.ashrae.org/advocacy.

ASHRAE/AIRAH Issue Joint Resolution on Climate Change

Use of renewable energy, education of the building industry and responsible refrigerant use are encouraged in a new joint statement on climate change issue by ASHRAE and the Australian Institute of Refrigeration Air Conditioning and Heating (AIRAH).

"The use of HVAC&R technologies is an essential element of contemporary life," Bill Harrison, ASHRAE president, said. "Yet, HVAC&R systems contribute to greenhouse gas releases through energy-related effects and through the effects of refrigerant losses. ASHRAE and AIRAH are emphasizing a variety of measures to decrease emissions associated with energy use and its effect on global climate."

"I see this joint statement as an acknowledgement of the role we affiliated organizations must play to address the complex challenges we collectively face," John Bosci, AIRAH president, said. "AIRAH is committed to creating awareness and acceptance through further education and to the promotion of sustainable building practices and the responsible development of alternative technologies within the Australian market."

By signing the statement, ASHRAE and AIRAH resolve to:

- Support research and development activities designed to reduce buildings' energy use and greenhouse gas emissions
- Educate building owners, operators, users, designers, and constructors on the importance of building energy efficiency, corresponding climate change impact, and proper operations and maintenance measures
- Encourage the supply of renewable energy into buildings and building engineering systems when economically feasible
- Develop and implement sustainable building designs, materials, components, systems, and processes that minimize environmental impacts, including climate change, while maintaining indoor environmental quality
- Provide advice, information, and assistance to governments and other influential bodies on energy efficiency and climate change emissions in both new and existing buildings
- Encourage responsible refrigerant use, including emissions reduction strategies and technologies and encourage development of energy efficient refrigerants with low or zero global warming potential
- Support the development and implementation of standards, building codes, incentive programs, and voluntary initiatives aimed at reducing building environmental impacts
- Implement holistic and coordinated approaches to identifying and resolving environmental issues at all stages of a building's life cycle—from conception, design, and construction through operation, maintenance, refurbishment, and deconstruction

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.



BACnet Gets Down to Business at ASHRAE Conference

From a new standard to activities taking place internationally, BACnet continues to seek improvement in tying together building equipment and systems manufactured by different companies.

ASHRAE recently published the newest version of Standard 135-2008, BACnet® -- A Data Communication Protocol for Building Automation and Control Networks. This new publication includes seven addenda that add BACnet/Web services and new objects for Event Log, Trend Log Multiple, Load Control, and Access Door.

Moving forward, the committee has 11 addenda in process for the 2008 version. In addition, addendum q for ASHRAE 135-2008 has been approved for publication and is available in the standards section of ASHRAE.org. Made in cooperation with members of the ZigBee Alliance, the new datalink specification allows mains-powered BACnet devices to communicate over the ZigBee wireless mesh network, opening up new installation options and furthering BACnet's reach into all areas of facility monitoring and control, according to Dave Robin, BACnet chair.

At ASHRAE's recent 2009 Winter Conference, the BACnet committee heard an update on BACnet activities from Russia. The BACnet Interest Group, Russia (BIG-RU) was recently asked by the Moscow State Construction University to prepare a BACnet training course at the university, which will become a required part of the curriculum.

"We estimate that at least 100 students will go through the course every year, and we expect that at least 50 of those will go into the industry experienced with BACnet", said Andrey Golovin, leader of the BIG-RU.

The committee also heard about activities in Japan. "A proposed green project of the graduate school/faculty of the University of Tokyo will establish an intelligent facility management system with advanced ICT technologies, and is planning an integrated BACS to research how to reduce energy consumption to 30 percent by 2012 and 50 percent by 2030 at the University of Tokyo," reported Takeji Toyoda, the liaison to the BACnet committee from the Institute of Electrical Installation Engineers, Japan (IEIEJ).

Robin said the committee is expecting a busy spring public review period, with 11 addenda proposed for standard 135 and four for standard 135.1.

After an extended period to allow for some actual implementations to be prototyped, the BACnet Network Security architecture will go out for its fourth public review as addendum g, bringing state-of-the-art digital signatures and encryption to BACnet, enabling security-critical applications to use a standard protocol.

Developed in collaboration with the IEIEJ, the Global Group Object will go out for its second public review in addendum p. This extends the concept of the Group Object to monitor and report on changes in data collected from multiple external devices. An enhanced Lighting Output Object will begin its third public review in addendum i, and a few additions made to the XML Data Formats will cause it to go out for its second public review in addendum t.

A new set of "Value Objects", proposed in addendum w, complete the data representation capabilities of BACnet. New objects like String Value Object and Unsigned Value Object enable more opportunities to present data in a standard, rather than proprietary, manner, according to Robin. In addition, the new Time Value Object enables the definition of an extension to BACnet scheduling for non-absolute times, allowing schedules to reference calculated times like sunrise/sunset.

ASHRAE Provides Federal Recovery Act Resources

With U.S. economic recovery stimulus funds coming down the pipeline, state and local governments have a once-in-a-lifetime opportunity to upgrade and modernize the nation's infrastructure.

To encourage investment in projects with the greatest long-term impact, ASHRAE has put together resources to help its members engage decision-makers in identifying and planning projects in their areas. Two resource packages related to recovery funding and energy efficiency in schools are being distributed to ASHRAE's 124 chapters in the United States, encompassing some 35,000 members. The packages and supporting information can be found at www.ashrae.org/recovery.

"The American Recovery and Reinvestment Act provides significant funding to federal agencies and state and local governments for the improvement of government-owned infrastructure," Bill Harrison, ASHRAE president, said. "ASHRAE members have the knowledge, experience and resources to assist state and local governments in determining projects with the greatest value and return on investment."

An ASHRAE Member's Guide to Recovery Funding provides information on the American Recovery and Reinvestment Act, areas of funding, resources available and tips for engaging state and local decision makers.

Energy Efficiency in Schools, Smart Investments of Recovery Funding provides information targeted to school administrators and state recovery fund managers to encourage investment in energy efficient schools

**ASHRAE Grant****Plugged In! Experience Seeks to Raise Awareness on Plug Loads**

From computers to popcorn poppers to hair dryers, energy use in dormitories often runs rampant due an overload of appliances.

To help students gain a better understanding of how being plugged in impacts building energy use, ASHRAE is funding a teaching project for students at the University of Oregon.

The students will be challenged to develop a better understanding of personal and broad-scale energy consumption and how appliance selection and behavior modification can impact energy use through a hands-on experience, known as Plugged In!. The project was one of 13 grants funded by ASHRAE through its senior undergraduate project grant program.

The grants, totaling some \$65,000, are awarded by ASHRAE to colleges and universities worldwide to promote the study and teaching of HVAC&R, encouraging undergraduate students to pursue related careers. The grants are used to design and construct projects. For more information, visit ASHRAE.org/studentzone.

As part of Plugged In!, students will “shop” for electrical appliances, determine the plug loads of each appliance and calculate their short-term and long-term energy implications. They also will develop a real-time monitoring and feedback loop of a dormitory, as part of their goal of modifying occupant behavior. The students will develop a Web interface using energy use animations to reflect the amount of actual energy use of the dorm.

“Students living in dorms across campus will see first-hand how their behavior impacts building energy use and how energy use impacts the environment,” said professor Alison Kwok. “Estimates show that plug loads can range from 10 to 25 percent of total building energy use. We want to show our students how energy use can influence decisions about building design and how their use of appliances can impact power use for the entire campus.”

Other ASHRAE grant recipients are:

- University of Colorado at Boulder, Developing a Low-Cost Modular Building Integrated Photovoltaic-Thermal Collector for Electricity, Hot Water and Pre-heated Ventilation Air
- Purdue University (team 1), Heat Recovery Demonstrators
- University of Central Florida, Design Optimization of a Solar Thermal System with Integrated storage
- Lawrence Technological University, Monitor and Simulate Two Existing, High Performance Buildings to Achieve and Maintain Sustainable Operation
- Boise State University, Solar Collector Panel Test Stand Senior Design Team
- The University of Kansas, Working Model of a Tall Building's HVAC&R Systems
- Florida International University, GSHP-Solar
- University of Alabama at Birmingham, Variable Speed Pumping System
- Cairo University, Solar Hydrogen Fuel Cell Water Heater Educational Stand – Design and Fabrication
- University of Washington – Seattle, Assessing the Natural Ventilation in Classrooms and Laboratories—Implementing Class Projects
- San Francisco State University (SFSU), Air Conditioning Laboratory Unit for Undergraduate Engineering Education
- University of Illinois at Urbana-Champaign, Design and Construction of a Solar PV Demonstration System for Laboratory Use and Public Education

ASHRAE Launches Commissioning Certification Program

Just as the commissioning process helps buildings and their systems operate optimally, ASHRAE's newest certification recognizes those with optimal knowledge of the entire building commissioning process. The program is ideal for individuals given a commissioning role who may not have a building HVAC&R background.

ASHRAE's Commissioning Process Management Professional launches in June at the Society's 2009 Annual Conference in Louisville, Ky. The program helps building owners, developers, operators and others recognize individuals capable of assuring that building systems and equipment are designed, installed, tested, operated and maintained according to their operational needs.

“As the standard setter for sustainable building performance, ASHRAE's certification program recognizes that people who manage the commissioning process need to have people- and project-management skills in addition to a level of understanding of building design, construction, operations and maintenance,” Bill Harrison, ASHRAE president, said. “This is what distinguishes the commissioning program from other HVAC commissioning certifications.”

Developed with input from APPA, BCA, IESNA, NEBB, SMACNA, TABB and the University of Wisconsin-Madison, the program is the fourth in ASHRAE's suite of certification offerings. The others focus on healthcare design, high-performance building design, and operation and maintenance.

Individuals must meet certain eligibility qualifications to take the exam. For more information, an exam content outline and available resources for exam preparation, please visit www.ashrae.org/certification. The fee for the exam is \$207.50 before June 5 (\$147, ASHRAE members).

**Stimulus Funding for Schools Provides Energy Efficiency Opportunities****ASHRAE Advanced Energy Design Guide Provides Simple Tool**

As school boards and superintendents develop programs to utilize recent U.S. economic recovery stimulus funds, projects focused on improving energy efficiency can result in long-term savings for school districts. Guidance from The American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) can help schools earn an A+ in achieving that efficiency.

The American Recovery and Reinvestment Act (ARRA) signed by President Obama on February 17, 2009, provides significant funding and financing opportunities to modernize, renovate and repair public schools. Under the "State Fiscal Stabilization Fund" up to \$48.3 billion can be allocated to schools. An additional \$25 billion in eligible bonds also have been authorized. ASHRAE and other leading building industry organizations have developed the Advanced Energy Design Guide for K-12 School Buildings. The guide provides recommendations for achieving 30 percent energy savings over the minimum code requirements of ANSI/ASHRAE/IESNA Standard 90.1-1999. Estimates show that a full 16 percent of schools districts' controllable costs is spent on energy.

"Beyond energy savings, by implementing the recommendations, schools may benefit from an improved learning environment, reduced operating costs, reduced environmental and climate impacts, and enhanced teaching opportunities on the environment," ASHRAE President Bill Harrison said.

The recommendations in the guide allow those involved in designing or constructing school buildings to easily achieve advanced levels of energy savings without having to resort to detailed calculations or analysis. All of the energy-saving recommendations for each of the eight U.S. climate zones are summarized in a single table. Additional recommendations point to other opportunities to incorporate greater savings into the design of the building.

More than 14,000 free copies of the Advanced Energy Design Guide for K-12 School Buildings were sent to school systems in the United States last spring.

Details on the stimulus funding for educational facilities can be found on the Department of Education's Recovery page (<http://www.ed.gov/policy/gen/leg/recovery>).

Copies of the Advanced Energy Design Guide for K-12 School Buildings are available for free download at www.ashrae.org/freeaedg or print copies may be ordered from the ASHRAE Bookstore at www.ashrae.org.

In a Down Economy, an Uplifting Conference: ASHRAE 2009 Annual Conference in Louisville

Program on optimal indoor air quality provides essential skills and networking

In the current economic environment, networking and business development opportunities are more important than ever. With its nearly 100 educational sessions, the technical program at ASHRAE's Annual Conference provides the perfect environment for developing new skills and contacts.

"Why attend the ASHRAE Annual Meeting in Louisville? Professional preservation is the purely selfish reason to attend," says Kirk Mescher, chair of ASHRAE's Conferences and Expositions Committee. "When working in HVAC&R, you need to be well educated on upcoming changes and new codes and standards, all of which are covered in the technical program. Those who develop the Handbooks and standards are there at the meeting; you should be too."

With a focus on optimal indoor air quality, the technical program runs June 21-24, at the Galt House Hotel in Louisville, Ky., with sessions on nearly every aspect of HVAC&R, from staying current with design practices to commissioning and good engineering business practices. New this year is the full range of programs scheduled in the buildings track. Complete program details are available at www.ashrae.org/louisville.

The technical program features a large building systems track that begins with an introduction to large buildings and addresses sustainable large building design, energy modeling, smoke control and specifically indoor sports facilities, entertainment venues, and museums and libraries. Other tracks with multiple programs include systems and equipment, indoor air quality, exergy and sustainability.

The program includes 60 seminars, 15 forums, more than 90 papers presented, and a technical plenary on Sunday that outlines the potential needed adaptation of cities and buildings for climate change. Sue Roaf, Ph.D., Heriot-Watt University, Edinburgh, Scotland, speaks about the concept of the low-carbon building and how we can make them happen while we redesign the built environment for the future.

Sessions of interest include:

Seminar 7, ASHRAE Members' Survival Guide: Keeping Your Business Alive and Well During Difficult Economic Times

Seminar 8, Case Studies of Moisture Management Issues in Litigation

Seminar 31, Contracts?? (Ugh! Boring!) A Comparison of the AIA 2007 and AGC ConsensusDocs Contract Forms

Seminar 2, Energy Use and Efficiency in Healthcare Facilities

Seminar 39, Defining the Contribution of Fans in Achieving the Goals of ASHRAE Standard 90.1

Seminar 14, Balancing Indoor Air Quality and Energy Conservation/Efficiency Objectives in Schools

Transactions 17, Issues with Ventilation and Indoor Air Quality in ASHRAE Residential Standards

Seminar 28, Real World BIM for the HVAC Engineer

Seminar 54, Optimal Air Quality: Control of Ozone

Seminar 37, Cost Impacts of ASHRAE's New IAQ Guide

Seminar 59, Using Cx to Improve Sustainability and IAQ of Existing Buildings

For more information on ASHRAE's 2009 Annual Conference, please visit www.ashrae.org/louisville. Conference registration is \$670 (\$505 for members).