

The

Pile of Bones

Published by the Regina Chapter of the American Society of Heating, Refrigerating and Air Conditioning Engineers

SEPTEMBER 2008

President's Message

by Ted Cooke

Hello fellow ASHRAE members and welcome back. I hope everyone was able to get out and enjoy the Summer. Our September meeting fast approaches and Greg has lined up a tour of the new Saskatchewan Transportation Company facility on Broad Street. To be near the tour we will be having our pre-tour dinner and meeting at **Lang's Café** beside the new STC Facility and hope to see you all out.

At the end of last year, our Chapter was represented well at the Region XI Chapter Regional Conference (CRC), with four members attending: Greg Fluter, Jerry Boulanger, Rob Craddock and Ted Cooke. Once again our chapter and chapter members won several awards at the CRC, full details will be made available in October.

Our Chapter will be hosting the 2010 Region XI CRC and last year the Chapter elected Jerry Boulanger as CRC chair. I encourage anyone willing to help prepare for the 2010 CRC to contact Jerry.

I would like to welcome Heric Holmes to the Chapter Board of Governors in the position of Secretary and give him a hearty thank you for volunteering to fill the position. At the end of this year we will have several Board Members stepping down from the board. Therefore, the chapter is looking for more members to step up and sit on the Chapter Board next year. If anyone is interested, please contact Ted Cooke or Greg Fluter.

As you know we have received a number of awards and this would not have been possible without the great deal of work that many Board & Chapter Members have put in. A great thank you to everyone who contributed any time and effort to the ASHRAE Regina Chapter on the Board, Committees or just simply helping out. Also, thank you to everyone who contributed to ASHRAE Research last year.

Awards and goal busters will be in next month's newsletter so stay tuned to see the achievements of our local chapter and its members.

Meeting Notice!

**Wednesday
September 10, 2008**

**Regina
Lang's Café
1745 Broad St.**

5:00-Social/Cocktails

5:30-Dinner

6:30- Chapter Meeting

7:00- Tour of STC Facility

Please note: that you should be receiving or possibly have already received your Regina ASHRAE Chapter fees invoice. In order to keep our chapter strong and vibrant, please remit any unpaid or new dues promptly once received.

Please note: the invoice change in the address/postal code once you have received it.

See you all at the meeting.

Technical Program for September

Tour of new STC Bus Facility in Regina

To begin the new ASHRAE year, we have arranged for a tour of the new STC Bus Depot in Regina which is currently under construction. We will have a short supper meeting at Lang's Café at 1745 Broad St, adjacent the new facility. After supper we will proceed over to the new building where Saunders Evans Architects and Grant Dawson, from HDA Engineering, will provide an overview of the project followed by the tour.

2008/2009 Meetings and Events Schedule

September 10, 2008: Tour of New STC Bus Depot in Regina

October 15, 2008: SaskPower – Doug Daverne - Boundary Dam Integrated CCS Demonstration – focus of Clean Coal Project

November 12, 2008: Brian Brunskill – Geothermal Opportunities in Saskatchewan

December 10, 2008: Christmas Social – To be determined

January 14, 2009: To be Determined

February 11, 2009: To be Determined

March 11, 2009: To be Determined

April 15, 2009: Student night

May 13, 2009: To be Determined

June, 2009: ASHRAE Research golf tournament

Committee Chair Reports

President Elect and Chapter Technology Transfer Chair

by Greg Fluter

This month we will be touring the new STC Bus Depot currently under construction in Regina. Saunders Evans Architecture and Grant Dawson, from HDA Engineering, will be giving an overview of the project.

There are currently four meetings in the New Year for which presentations are not yet confirmed (we do have a couple pending). We are leaving the February Meeting open at present for the potential visit of ASHRAE President Bill Harrison. We are also trying to arrange for a distinguished lecturer for at least one of the meetings. We are trying to coordinate this effort with both the Saskatoon and Manitoba chapters. If anyone has other suggestions for programs this year, please forward them to Greg at g.fluter@mac-eng.ca. Finally, I would also like to request that members send in suggestions for the Christmas Social in December so we can get an early start on planning.

Greg Fluter
President Elect and Chapter Technology Transfer Chair

Membership Promotion Chair

by Rob Craddock

It is hard to believe that it is the end of summer and time to start the new ASHRAE year.

I would like to thank all the members that have already renewed their membership for the 2008 / 2009 ASHRAE year. I will be contacting those of our members that are eligible to upgrade their membership to Member from Associate and Affiliate. We also have a couple that will be able to upgrade from student to Associate. Our goal from the region this year is to continue to grow this has not been a problem over the last couple of years with all the hard work that Ray has put in.

If you can think of anyone who you think should be a member of ASHRAE please let me know and I will contact them.

I have added the following links:

Membership Application

http://www.ashrae.org/docLib/20080710_MemberAssocAffilApp.pdf

Application to upgrade membership:

http://www.ashrae.org/docLib/20080710_108.pdf

Rob Craddock
Membership Promotion Chair

Research Promotion Chair

by Ray Sieber

I am back again. Last year, Rob Craddock asked that I would take over from him for Research Promotion and he would in turn, take over Membership – he didn't tell me that he would set the Chapter record for research donations. Nothing like a little pressure. 2007/08 was a very successful year for the Regina ASHRAE Chapter in regards to our Research campaign. The chapter raised a new high of \$ 11,575. This would not have been possible if it was not for the generous donations made by all the chapter members and their companies. The following is a list of all the donors from last year:

Shawn Wedewer	MacPherson Eng.
Ecco Heating	Christie Mechanical
HVAC Sales	Inland Metal
Uponor	SaskEnergy
Saskatchewan Insulation	Selkirk Canada
Trane	Crane Supply
Lennox	Kris Pockett
Edco Plbg.	Trevor Harle
Harvard Developments	DMA Control
Ray Sieber	Ted Cooke
Dean Nagel	Rob Craddock
Greg Fluter	Walters Industrial
Jason Danyliw	Johnson Controls
KD Mechanical	Darke Marketing
Moose Jaw Heating	Canbro Consulting
Electronic Environments	J-Clan Services
Engineered Air	All-Rite Plbg.& Htg.
Cypress Sales	Stantec Consulting
Hooker Dawson	LML Engineering
Bob Lyons	Dyn Air
ASHRAE Regina Chapter	City of Regina

I wish to congratulate Rob on a tremendous job last year (and for making my job a little more challenging). On behalf of Rob, I would like to thank the other committee members Murdoch MacPherson, Jack Lyons, Shawn Wedewer, and Greg Fluter for all their hard work.

Ray Sieber
Research Promotion Chair

Vice president – Newsletter
by Dean Nagel

Regina Chapter Email Address:
<mailto:ashraeregina@accesscomm.ca>

Regina Chapter Website Address:
Currently Under Construction

ASHRAE HVAC&R Industry eNewsletter
If you wish to subscribe to the ASHRAE HVAC&R Industry eNewsletter, e-mail subscribe-enews@ashrae.org with “Subscribe this address to The HVAC Industry eNewsletter” in the e-mail subject line.

ASHRAE Learning Institute

The ASHRAE Learning Institute is offering on-line courses. [Online Courses Registration Form](#) Please see attached information.

ASHRAE Publishes New Guidance on Commissioning Process

ATLANTA – Specific tasks to successfully implement the commissioning process for HVAC&R systems and assemblies are featured in a new guideline from ASHRAE.

ASHRAE Guideline 1.1, *HVAC&R Technical Requirements for the Commissioning Process*, describes the technical requirements for the application of the commissioning process described in ASHRAE Guideline 0-2005 that will verify that the HVAC&R systems achieve the owner's project requirements.

“The quality-oriented process outlined in the guideline provides improved quality and greater cost effectiveness compared to commissioning as currently practiced by many commissioning providers,” Walter Grondzik, secretary of the committee that wrote the guideline, said. “One problem with the current practice is that 100 percent checking is performed during the construction phase of the project delivery process, and this checking usually focuses on limited or targeted systems. Quality-based sampling is not used, and so the current approach has limited quality-based random inspection procedures.”

The guideline contains more than 100 pages of annexes, providing concrete examples of forms and documents to assist the commissioning team and owners in their efforts to deliver quality

buildings that meet the owner's project requirements. Twenty-five sample checklists, covering pre-design, design and construction, are included along with a sample owner's project requirements verification test procedure.

The cost of ASHRAE Guideline 1.1, *HVAC&R Technical Requirements for the Commissioning Process*, is \$69 (\$55, ASHRAE members).

To order, contact ASHRAE Customer Service at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide) or visit at www.ashrae.org/bookstore.

SIDEBAR

Why should you use the commissioning process? Commissioning a building (and systems within a building) helps ensure that:

- The owner's project requirements are complete, feasible and well-documented;
- The design team's solutions adequately address the owner's requirements;
- Construction is complete and of appropriate quality;
- The owner receives the training and project documentation to successfully operate the project;
- The many players in the project acquisition process can cooperate for the common good.

ASHRAE, The Green Grid Collaborate to Develop Data Center Efficiency

ATLANTA – Publications that provide improved guidance for data center design and operation will result from a new agreement between ASHRAE and The Green Grid.

The cooperative publication agreement between ASHRAE and The Green Grid encourages the sharing of technical information, particularly guidance regarding energy efficiency, between the two groups.

With datacom center operations running 24 hours a week, 7 days a week, approximately three times the annual operating hours of most commercial properties, energy use is typically large and concentrated. As a result, issues such as sustainable design, energy efficiency and operating cost become critically important for these facilities.

“This agreement raises our collaboration efforts in the electronics industry and enhances our efforts to provide data center operators with important information to improve the energy efficiency of data centers, paralleling the work already being done by ASHRAE to improve energy efficiency in all types of buildings,” said Roger Schmidt, chair of ASHRAE's technical committee on mission critical facilities, technology spaces and electronic equipment. “ASHRAE's unique membership makeup of manufacturers, designers, facility managers, architects and code officials will go a long way in assisting the member companies of The Green Grid.”

“With energy shortages and rising energy costs now topping the list of concerns for large scale organizations, the movement to reduce data center and other IT energy usage patterns is quickly gaining momentum,” said Geoffrey Noer, a director of The Green Grid. “We believe achieving greater IT energy efficiency is a crucial step to ensuring that growing companies can control costs while enabling future expansion.”

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The Green Grid, www.thegreengrid.org, is a global consortium dedicated to advancing energy efficiency in data centers and business computing ecosystems.

ASHRAE, Global Cold Chain Alliance Ban to Promote Mutual Refrigeration Interests

ATLANTA – Under a new agreement, ASHRAE and the Global Cold Chain Alliance will work together in a strategic partnership to advance and promote the mutual interests of refrigeration and facility professionals.

Potential collaborative efforts include development of a refrigerated warehouse guide, updating the existing refrigeration warehouse chapter and other guidance in the ASHRAE Handbook, Refrigeration, and co-sponsoring of research related to refrigeration.

“ASHRAE’s involvement in refrigeration began more than 100 years ago, and since that time the Society has been a strong link in the cold chain through our research, education and other technical information,” ASHRAE President Bill Harrison said. “Through our agreement with the Global Cold Chain Alliance, we will strive to revitalize refrigeration to better serve the needs of the world. Working together, we must seek the best in refrigerants, efficiency, cost reduction, reliability and energy utilization.”

“This signed agreement for Strategic Partnership between the Global Cold Chain Alliance and ASHRAE is an example of the strength of an industry addressing the challenges of a safe and efficient cold chain around the world. ASHRAE members represent a key element in the success of this initiative,” Bill Hudson, president and CEO of the Global Cold Chain Alliance, said.

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Comprised of its Core Partners, including the International Association of Refrigerated Warehouses, the World Food Logistics Organization, the International Refrigerated Transportation Association, and the International Association for Cold Storage Construction, the Global Cold Chain Alliance (GCCA) represents all major industries engaged in temperature-controlled logistics. GCCA unites partners to facilitate communication, networking, and education for the perishable food industry. For more information, visit www.gcca.org.

New Package from ASHRAE Gives Users Tools for LEED

ATLANTA – With a new package, ASHRAE has put the tools for making the most out of your LEED-intended project at your fingertips—at a discount.

To help architects, program managers, building owners, and others meet and learn about LEED requirements and the development of high-

performing buildings, ASHRAE has put together a new package that includes three ASHRAE standards frequently used in conjunction with LEED v.2.2. Also included are the Standard 62.1 and Standard 90.1 User’s Manuals and three books from the popular ASHRAE Advanced Energy Design Guide series.

“The ASHRAE Tools for LEED package is an unbeatable source of technical information for creating sustainable buildings,” says W. Stephen Comstock, publisher. “ASHRAE standards have long been a part of the LEED program’s technical requirements, and we are pleased to offer these standards together to best benefit the building industry.”

The hard-copy-only package price is \$426 (\$335 ASHRAE members), a 30 percent discount. To order, contact ASHRAE Customer Service at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), by mail at 1791 Tullie Circle NE, Atlanta, GA 30329, or visit the ASHRAE.org Bookstore at www.ashrae.org.

The full package includes:

- ANSI/ASHRAE/IESNA Standard 90.1-2004, Energy Standard for Buildings Except Low-Rise Residential Buildings (I-P edition)
- 90.1-2004 User’s Manual
- ANSI/ASHRAE Standard 62.1-2004, Ventilation for Acceptable Indoor Air Quality
- 62.1-2004 User’s Manual
- ANSI/ASHRAE Standard 55-2004, Thermal Environmental Conditions for Human Occupancy
- Advanced Energy Design Guide for Small Office Buildings
- Advanced Energy Design Guide for Small Retail Buildings
- Advanced Energy Design Guide for K–12 School Buildings
- Procedures for Commercial Building Energy Audits

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[Dates Confirmed for Next Satellite Broadcast/Webcast](#)

The next ASHRAE Satellite Broadcast/Webcast is scheduled for **April 22, 2009**. The broadcast program will focus on Indoor Air Quality. Please share this information with your chapter members to assist them with scheduling. Watch for additional information via email, www.ashrae.org, and *ASHRAE Insights*.

Improving Building Performance Strong Focus of ASHRAE Meeting

ATLANTA – Tremendous opportunities for improving the performance of existing buildings were highlighted at the ASHRAE 2008 Annual Meeting held in Salt Lake City.

The meeting theme of “Building Performance” was reinforced by focus of the newly elected president on operation and maintenance, introduction of a new “sustainable footprint” project and launch of the Society’s certification program for high performance building design professionals.

Some 1,670 members came together to support the Society’s mission of advancing HVAC&R to serve humanity and promote a sustainable world.

“The beautiful Rocky Mountains surrounding Salt Lake City was the perfect scene for another productive ASHRAE meeting,” Bill Harrison, ASHRAE president, said. “When you’re in the mountains, hiking up those steep walls of rock, it may seem like the climb will never end. But when you take a step back and look at those slopes, the mountains don’t seem so unbearable. With our meeting theme of Building Performance, ASHRAE showed that our climb to our goal of energy efficiency for the world’s buildings doesn’t look so far away. In fact, it seems we are almost there.”

Harrison was inducted as the Society’s president for 2008-09. Through his theme, *Maintain to Sustain – Delivering ASHRAE’s Sustainability Promise*, Harrison will focus on operating buildings to deliver the energy efficiency inherent in their design, including effective commissioning, improved documentation, and programs to educate and certify building operators.

“We must maintain to sustain, we must train to sustain and we must influence the operation of our buildings to conserve energy,” he said.

To read his presidential address, visit www.ashrae.org/harrison.

At the meeting, ASHRAE launched its first sustainable footprint project – designed to leave behind a lasting sustainable footprint in the cities where the Society’s meetings are held. Thanks to funds and equipment donated by members and others, a solar hot water heating system was installed at the YWCA of Salt Lake City’s Teen Home. More than \$9,000 in money and equipment was raised to install the system, with a ribbon cutting held as part of the meeting.

ASHRAE provided four flat solar panels and additional storage capacity for domestic hot water use. The solar panels will replace approximately 100 decatherms of natural gas per year and reduce the carbon footprint for the home by over 10,000 lbs. of CO₂ annually, saving the YWCA more than \$650. For more information, visit www.utahashraesolar.tzo.com.

ASHRAE Learning Institute courses related to natural ventilation and solar applications were well-attended, illustrating that “technology as usual” is no longer the norm for building design, construction and operation.

Top-attended technical program sessions included *Utilizing VFD for Building HVAC System Performance; Issues Update: Performance Based Energy Labels for Buildings; Improving Building Performance by Using the IAQ Procedure; Balancing Energy and Water Conservation in HVAC Cooling Systems: A Total Consumption Approach; Benchmarking Performance of Ventilated and Non-Ventilated Attics; Modeling Data Center Airflow and Cooling Performance*; and the keynote technical plenary speaker Arah Schuur with the Clinton Climate Foundation.

Top-selling publications at the meeting were the *ASHRAE GreenGuide: The Design*,

Construction and Operation of Sustainable Buildings; ASHRAE Guideline 1.1-2007, *HVAC&R Technical Requirements for The Commissioning Process*, ANSI/ASHRAE Standard 62.1-2007, *Ventilation for Acceptable Indoor Air Quality*, and its User's Manual, and ANSI/ASHRAE/IESNA Standard 90.1-2007, *Energy Standard for Buildings Except Low-Rise Residential Buildings*.

ASHRAE also launched its second certification program in high-performance building design with some 60 people taking part. The examination will be available on computer at testing centers in the U.S. and Canada by mid-August.

The next certification program will focus on operation and maintenance, and is scheduled to launch at the 2008 Winter Meeting, followed by a program on commissioning at the 2009 Annual Meeting. For more information, visit www.ashrae.org/certification.

ASHRAE will hold its 2009 Winter Meeting, Jan. 24-28 in Chicago, accompanied by the AHR Expo, Jan. 26-28.

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Standard 161-2007 Published ASHRAE Publishes Nation's First Airplane Cabin Air Quality Standard

ATLANTA - Proper air quality is essential for general health and well-being in indoor spaces. Recognizing this, most people will take steps to address air quality in their homes and workplaces, but what about when on board an airplane when passengers have no control in a very high-density environment?

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) addresses air cabin air quality in its new Standard 161-2007, *Air Quality Within Commercial Aircraft*. The standard, which covers issues such as temperature, cabin pressure, air contaminants and ventilation rates, can be voluntarily adopted by individual airlines or the Federal Aviation

Administration (FAA), or advocated for by airline passenger and employee groups.

"Compliance with this standard will go a long ways toward ensuring good air quality for passengers and crews," says Byron Jones, chair of the committee that wrote the standard. "Aircraft passengers and crew make up a wide cross section of the general population, ranging from the very young to the very old, from the healthy to infirm. And unlike many other indoor environments, occupants do not have the ability to remove themselves from the environment, which is at a lower pressure and relative humidity than that found in many other environments. Standard 161 will help create a healthier, more enjoyable ride for the great variety of passengers on board."

The standard also addresses chemical, physical and biological contaminants that could affect air quality as well. Methods of testing are provided for ensuring compliance with the standard's requirements.

Standard 161 applies to commercial passenger air-carrier aircraft carrying 20 or more passengers. It is intended to apply to all phases of flight operations and to ground operations when the aircraft is occupied by passengers or crew members.

The cost of Standard 161-2007, *Air Quality Within Commercial Aircraft*, is \$54 (\$43 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 www.ashrae.org/bookstore.

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Market Transformation Taking Place with Advanced Energy Design Guide

ATLANTA – Nine million tons of carbon dioxide. \$600 million in energy costs.

That's the potential savings represented by 100,000 copies in the *Advanced Energy Design Guide* series now in circulation. More than 88,000 of the publications have been obtained via free download since January.

The series includes publications on small retail and small office buildings, K-12 school buildings, and warehouses and self-storage units.

The books provide guidance on how to achieve 30 percent energy savings over building code minimum based on ANSI/ASHRAE/IESNA Standard 90.1-1999.

Calculations show that if every guide downloaded resulted in a single building designed to save 30 percent beyond code minimum, the estimated energy and carbon savings would be 52 trillion btus and 9 million tons of carbon dioxide. With an average cost of electricity of 5 cents per kwh and gas at \$7 per mmbtu, the estimated cost of energy savings is over \$600 million.

The guides are developed by ASHRAE, the American Institute of Architects, the Illuminating Engineering Society of North America and the U.S. Green Building Council, with support from the U.S. Department of Energy. The downloads are available at www.ashrae.org/freeaedg.

“ASHRAE is committed to energy optimization and producing guidance that will help move the building industry toward market-viable net-zero energy and carbon neutral buildings,” ASHRAE President Kent Peterson, P.E., said. “The call for these high performing buildings is transforming our industry, and the guidance in the Advanced Energy Design Guide series is useable technology guidance to help owners, architects and engineers in accomplishing high-performing buildings.”

“This is proof positive that there are substantial economic benefits to green building strategies,” said AIA President Marshall E. Purnell, FAIA. “Hopefully this will help convince skeptics of the value and payback of green building design and that practitioners will take advantage of this excellent resource so that we can move closer to reaching our shared goal of carbon neutral buildings by 2030.”

“IES is pleased to part of the team developing these important guides, whose success demonstrates that collectively the collaborating organizations are raising awareness about how to achieve energy savings and developing a receptive audience for future guidance on net-zero energy and carbon neutral buildings,” said Rita M. Harrold, IESNA director of technology.

“The green building movement offers an unprecedented opportunity to respond to the most-important challenges of our time, including global climate change, dependence on non-sustainable and expensive sources of energy, and threats to human health,” said Rick Fedrizzi, President, CEO & Founding Chair, U.S. Green Building Council. “Working with ASHRAE, AIA and IESNA on the Advanced Energy Design Guide series is part of a critical collaborative effort to provide the industry with the tools it needs to make an immediate and measurable impact.”

Upcoming publications in the series include 30 percent guidance books for highway lodging, existing buildings and small health care facilities. For more information on the *Advanced Energy Design Guide* series, visit www.ashrae.org/aedg.

BACnet Looks at Improving Standardized Communications

ATLANTA – A new standard way of representing building data will give BACnet new capabilities for standardized communications between a wide range of applications.

A definition for an XML syntax which can be used to represent building data in a consistent, flexible and extensible manner, is defined by addendum *t*, recommended for public review by the BACnet committee during ASHRAE’s recent 2008 Annual Meeting.

The Extensible Markup Language (XML) is a popular technology in the data processing and communications worlds, based on its ability to model a wide range of data, and its ability to be transformed and extended.

“With this new IT-friendly way of representing building data, we are opening up a whole range of possible new ways to share data. XML can be used for exchanging files between systems, integrating buildings with energy utilities, and expanding enterprise integration with richer Web services.” said Dave Robin, incoming BACnet chair.

In a busy three-and-a-half day session during the meeting, the BACnet committee moved eight other addenda toward publication.

Addendum *g*, a new means for securing BACnet messages using updated encryption technologies, was recommended for another public review following an extended period of revision and

analysis by the Network Security working group following the preceding public review.

The Life-Safety and Security working group, comprised of BACnet and physical security industry experts, recommended another public review for Addendum *j*, which proposes physical access control extensions for BACnet.

“We received only nine comments on the previous public review,” said working group convener David Ritter, “and they were all positive and constructive comments.”

The Testing and Interoperation working group revised its definitions of several new types of BACnet operator workstations following the first public review of addendum *l* last fall.

"These definitions will not only allow users to specify the capabilities of different workstations, but are necessary for defining the tests done on those workstation by BACnet testing labs," said working group convener Carl Neilson.

Addenda *h*, *r* and *s*, all comprised of a number of independent changes, were also recommended for public review.

After reviewing the comments submitted for two addenda, the BACnet committee determined that addenda *b* and *m* had passed spring public review and will be submitted for publication. Both addenda are comprised of several independent changes but include user-oriented extensions such as the Event Log object, which keeps a history of BACnet alarms in a standard fashion.

Also during the meeting, outgoing BACnet chair Bill Swan announced the publication of BACnet 2008, incorporating the five addenda that have been approved since the publication of BACnet 2004.

The BACnet committee continues to work on a broad range of other items, such as architectural and theatrical lighting controls, developing standard profiles for various building automation devices, CCTV control, and elevator monitoring.

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ASHRAE Announces Scholarship Recipients

ATLANTA - The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) has announced the recipients of 16 scholarships totaling \$85,000 for the 2008-09 academic year.

The students, all pursuing courses leading to a career within the HVAC&R industry, will receive the following undergraduate ASHRAE scholarships:

* Reuben Trane Scholarships: \$10,000 over two years, Jonathan Jenkins, University of Kansas, architectural engineering; Carrie Baughman, North Carolina State University, mechanical engineering; and Ashanti Hepburn, NC A&T State University, architectural engineering. The scholarship was established in 1991 when The Trane Co. established an endowment fund in memory of its founder.

* Willis H. Carrier Scholarship: \$10,000 for one year, Felipe Pinsheira, Southern Illinois University-Carbondale, mechanical engineering; James Newman, Kansas State University, architectural engineering. The scholarship was established by The Carrier Corp. in memory of its founder, a pioneer in the HVAC&R industry known for his contributions to establishing air conditioning as an industry.

* Frank M. Coda Memorial Scholarship: \$5,000 for one year, Martin Nolan, City College of the City University of New York, mechanical engineering. The scholarship is named in memory of ASHRAE's former executive vice president.

The following one-year \$3,000 scholarships will be awarded:

* Henry Adams Scholarship: Alyssa Adams, Pennsylvania State University, architectural engineering. The scholarship was established

by the consulting firm of Henry Adams Inc. in memory of its founder.

* Duane Hanson Scholarship: Susan Nagel, Kansas State University, architectural engineering. The scholarship's namesake was president of Gayner Engineers in San Francisco, Calif.

* Alwin B. Newton Scholarship: James Gawthrop, Pennsylvania State University, architectural engineering. The scholarship's namesake was an industry pioneer who was granted 219 patents and strived to provide knowledge to younger people in the industry.

* ASHRAE Region VIII Scholarship: Tanushree Thote, University of Arkansas, biological engineering.

* ASHRAE Scholarships: Clinton Gechter, University of Kansas, architectural engineering; and Paul Schack, University of Wisconsin-Madison, electrical engineering.

* Memorial Scholarship: Eric White, Southern Illinois University-Carbondale, mechanical engineering.

* Associate of Engineering Technology Scholarship: Jeffrey Normandy, Massasoit Community College, HVAC technology; Benjamin LaRose, State University of New York (Canton), air-conditioning engineering technology.

* Bachelor's Engineering Technology Scholarship: Jeffrey Hansen, Alfred State University (SUNY), mechanical engineering technology.

ASHRAE has awarded 180 scholarships during the past 19 years totaling more than \$925,000. The ASHRAE scholarship program encourages and assists HVAC&R education through scholarships and fellowships.

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

For more information, visit the scholarships page or contact Lois Benedict, scholarship administrator, at lbenedict@ashrae.org.

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Dean Nagel
Vice President – Newsletter

Student Activities by Jason Danyliw

During the course of last years' ASHRAE year, the ASHRAE Regina Chapter web site underwent an upgrade. As part of their academic requirement, two web design SIAST students (Mark Gordon and Andrew Parker) were given the task of redesigning the Regina Chapter web site. The students did a great job, were able to fulfill their academic requirement, and learnt a lot in the process. We are still working with the students to put the final touches on the web site, and enter in all the requested information. This will be an ongoing process for the next few months to coordinate with the ASHRAE site hosting and the students. We will pass along the detailed information on the site shortly when it is available for use.

The University of Regina Engineering faculty is in need of any ASHRAE Fundamental handbooks for use with class studies. Please feel free to contact me at <mailto:jason@skhvac.com> if you have any spare or old handbooks that you would like to donate to the University, and I will make arrangements to get the books to Marie Iwaniw at the University of Regina.

The April ASHRAE Regina Chapter meeting is the Student Night. This is where selected fourth year University of Regina engineering students will present their ASHRAE-related fourth year engineering projects during the meeting, they will

be judged on predetermined criteria, and awards presented for their hard work. There will be more detailed information on this meeting in the months to come.

Jason Danyliw
Student Activities

Board of Governors for the Regina Chapter

Past President: Shawn Wedewer
Research Promotion: Ray Sieber
President: Ted Cooke
President Elect and Chapter Technology Transfer Chair: Greg Fluter
Vice President and Newsletter: Dean Nagel
Membership: Rob Craddock
Treasurer: Kris Pockett
Secretary: Heric Holmes
Student Activities: Jason Danyliw
Historian: Frank Darke
Ways & Means: Vacant

Regional Executive

Director & Regional Chair
Traci Hanegan – Inland Empire Chapter

Assistant Regional Chair
Erich Binder – Southern Alberta Chapter

Nominating Delegate
Doug Dunford – Oregon Chapter

Nominating Alternate
Kevin Marple – Oregon Chapter

CTTC RVC
Bert Philips – Manitoba Chapter

Student RVC

Doug LeCren – Alaska Chapter

Membership RVC
Russell Lavitt – Manitoba Chapter

Regional Treasurer
Rob Craddock – Regina Chapter

Regional Historian
Ivan Hall – Northern Alberta Chapter

Research Promotion RVC
Norm Grusnick – B.C. Chapter

Society Executive

President
Bill Harrison

President Elect
Gordon Holness

Treasurer
Lynn Bellenger

Vice President
Vincent Tse

Vice President
Thomas Watson

Vice President
Jim Fields

Vice President
Andrew Persily

Sustaining Momentum

http://www.ashrae.org/doclib/20080818_sust_mom_eng.htm

TEST TO SEE IF YOU REALLY WATCHED THE VIDEO, AND TO SEE HOW MUCH YOU LEARNED FROM IT

We hope you enjoyed watching the video “Sustaining Momentum” and that you found it to be motivational and informative. See how much you learned about what ASHRAE is doing for sustainability.

1. According to the video, what will the projected population of the Earth be in 2050?
 - a. 9.5 billion
 - b. 8.5 billion
 - c. 10.5 billion

2. Humans use how much of consumable energy available controlling our indoor environment
 - a. 2/3
 - b. 1/3
 - c. 1/2

3. According to the video, “Global challenges are:”
 - a. “Our challenges”
 - b. “Our problem”
 - c. “Our opportunity”

4. ASHRAE Members are: (check all that apply)
 - a. The leaders of a critical industry
 - b. The pace setters
 - c. The standard bearers

5. Is networking a benefit of ASHRAE membership?
 - a. Yes
 - b. No
6. Finish this sentence from the video – Become a champion of:
 - a. Everything
 - b. Spaceship Earth
 - c. The world