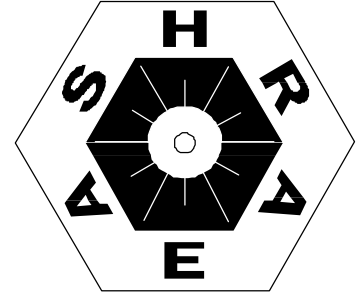
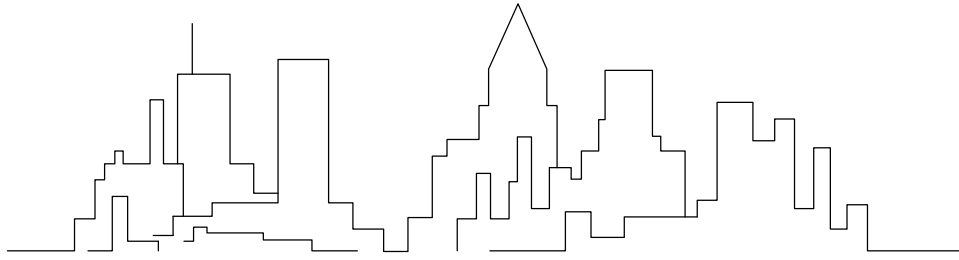


The EXCHANGER



Minnesota Chapter

www.mnashrae.org

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.

c/o Karges-Falconbridge Inc., 670 County Road B, Saint Paul, MN 55113

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Dunwoody Faculty Advisor	Chuck Taft	612-374-5267		cgtaft@peoplepc.com
Minnesota State Faculty Advisor	Patrick Tebbe	507-389-6383		

Presidents Corner

Submitted by Brian Shablow

Dear Constituents,

New York, New York...I for one didn't get to partake in the ASHRAE Winter Meeting but hopefully those of you that did will have opportunities to talk about your experiences at our next business meeting!

Although, we had a bit of the pre- hoopla with an honorary visit by Kent Peterson, ASHRAE President, who engaged us in his theme of sustainability and reminded us how important ASHRAE is becoming with regard to present and future Standards and Design Guidelines. WE can all be proud to be associated with such an organization that provides a major impact globally!

A bit of history was displayed at the meeting thanks to Gary Grenzer our Historian. I would encourage all to send Photos, Bio's or Stories to Gary or Al our web master for reminiscing!

Membership – It was unfortunate that not many members took advantage of the Membership Drive incentive of bringing a guest to both get in free? Take these opportunities to ask co-workers or better yet YEA's that are not members to introduce them to our community. The March 11 meeting may be a good opportunity to take advantage of this membership drive offer. Please contact Paul Quirin, Chair of membership. YEA's don't forget to subscribe to the "YEA Connection" (http://cms.ashrae.biz/yea_connection/index.php).

Guests if you are attending a meeting for the first time please ask to talk to our Reception Committee Chair, Past President, Curt Ratajczak. Curt is there to be of assistance and introduce you to other members, or perhaps there will be somebody you already know from your past.

UPCOMING EVENT:

February 12 – Refrigeration Seminar: Topics include Standards 15&34, Future of Scroll Compressor Technology, and HVAC Energy Solutions for LEED Certification.

For those of you who can not attend the morning seminar please register for the lunch Chapter business meeting to network, unwind and to learn about Relational Control concepts.

Hope to see you in February!

I hope all are well, doing good work, and keeping in touch via www.mnashrae.org !

Chapter Information

Technology Award Applications

Submitted by Tim Manz and Todd Gray
CTTC Co-Chairs

The Chapter Technology Transfer Committee (CTTC) of the Minnesota Chapter of ASHRAE has announced that Technology Award Applications are due on **Monday, February 4, 2008**. The Technology Award recognizes ASHRAE members and projects that utilize innovative HVAC/R systems in both new buildings and existing buildings. Each year the Society presents awards in seven categories: Commercial Buildings, Institutional Buildings, Health Care Facilities, Industrial Facilities or Processes, Public Assembly Facilities, Residential Buildings, and Alternative or Renewable Energy Use. Following is a link to the ASHRAE website that contains specific information on the application process (just scroll down to the Technology Awards Program):

www.ashrae.org/cttc

Don't be overwhelmed by the application process, even if you have never submitted an application before! The application is basically a 2 or 3 page description of the project (short form), and if the project wins an award at regional level, a more complete submittal (long form) is required for the project to be forwarded to Society. If you have any questions, please don't hesitate to contact Tim Manz or Todd Gray.

Also, don't forget that the winner at the chapter level receives \$100 and will have his/her application submitted to the regional level for additional award considerations!

Tim Manz
manzx003@umn.edu
(612) 624-9082

Todd Gray
tgray@albersco.com
(651) 265-0630

Local Technical and Engineering Talent

Submitted by Steve Schreurs

Your Minnesota Chapter sponsors three ASHRAE student branches at Dunwoody College, Minnesota State University Mankato and the University of Minnesota, Institute of Technology. A number of ASHRAE student members at these schools are looking for internship opportunities this summer. Others are nearing graduation and seeking entry level positions in the HVAC industry.

Each of these schools maintains a student career service and placement office that can be accessed at the college websites. The career services allow you to view student resumes and post job openings. Use a search engine like Google to locate the college websites and the associated career services. You may also wish to contact our student branch advisors as well at:

Chuck Taft at Dunwoody College - cgtaft@peoplepc.com

Patrick Tebbe at Minnesota State University Mankato –
Patrick.tebbe@mnsu.edu

Tom Kuehn at the University of Minnesota - kuehn001@maroon.tcmn.edu

By working together we can create opportunities for the new generation of HVAC specialists that will carry the torch when it comes time for us to move on.

Looking for a Few Good Firms to Help Sponsor our Student Members

Submitted by Steve Schreurs

Last year six local firms sponsored student branch members to attend the monthly chapter meetings and to help send several students to the ASHRAE Winter Meeting in Dallas. Our sponsors were Energy Efficient Resources, Midwest Mechanical Solutions, Minnesota Air, R.M. Cotton Company, Schwab Vollhaber Lubratt and TMS Johnson. These organizations stepped up to the plate to each make a \$200 donation to the Minnesota Chapter on behalf of our student members.

This year's ASHRAE Winter Meeting was in New York which is just a bit more costly so your chapter board decided to concentrate on getting students to attend our local chapter events.

For 2007/2008 we're asking interested firms and individual members to help sponsor our students by making a donation of \$125. To become a student sponsor for local meetings contact George Rothenberger or Steve Schreurs at the phone number or e-mail address listed on the front page of the Exchanger.

RESEARCH PROMOTION Update

Submitted by Duane Rothstein

In the November issue of the Exchange, our president Brian Shablow put a quick plug in for Research Promotion. Thanks Brian! I would like to expand on his message and use the exchanger to update you monthly on the progress the Research Promotion Committee is making.

Every year the MN Chapter, your Chapter, has worked hard and been very successful at attaining their RP goal. We are continuously looking for help with the RP committee and contributions from our members and companies. So, if you can spare a total of one hour for one week out of the year to help with a calling campaign or would simply like to make a financial contribution, please contact me at duane.rothstein@mcquay.com.

For the 2007-2008 RP campaign, Society has determined a goal of \$38,000 for the Minnesota Chapter. Currently, as of the end of October, we have attained \$3,226 or 8.2% of our goal. By the end of this year, the milestone is to achieve 30% of our yearly goal. I believe we can do this and to help, we have a calling campaign scheduled in November. I will update you on its success in next month's issue of the Exchanger.

I would like to personally thank and recognize the following individuals and organizations who have contributed to this year's campaign. If you run into these people, please tell them "Thank You!" for their contribution.

Thomas Olson	Roy Earl	Todd Courneya
Xcel Energy	C. A. Wilcken, Jr.	John Clark
Dr. Curtis Pedersen	Philip Dugan	John Rieke
Jay Eldridge	Robert Linder	Martha Hewett
Joseph Senden	Daniel Dickenson	James Foster
Curtis Ratajczak	Mason Myers	Ned Rector
Donald Geng	Hugh Crowther	John Janssen
Brian Shablow	Harold Manthey	Louis Flagg Memorial
Thomas McNamara	Gary Grenzer	Craig Johnson
Scott Rollings	James Keller	Sommayajula Sarma
		James Douglas

Society Information

ASHRAE Publishes Updated Version of Energy Efficiency Standard

ATLANTA – Energy reduction through new requirements related to lighting, façades, and mechanical systems is achievable in the latest energy efficiency standard from ASHRAE and the Illuminating Engineering Society of North America (IESNA).

Just published, the 2007 version of ANSI/ASHRAE/IESNA Standard 90.1, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, provides minimum requirements for the energy-efficient design of buildings except low-rise residential buildings. The standard contains changes made through 47 addenda to the 2004 standard.

“One of the best ways to reduce building energy consumption is to reduce, or eliminate, the cooling or heating loads,” Mick Schwedler, chair of the Standard 90.1 committee, stated. “By doing so, the systems installed in buildings become smaller and use less energy. For example, on a hot, sunny day, having more insulation in the roof and better glass on the southern and western façades of a building reduce the air conditioning necessary as well as its resultant energy use. Two of the addenda do this by enhancing the insulation and fenestration (or window) requirements for the building exterior.”

The standard also addresses reduction of electrical and cooling loads and thus electricity by allowing less power for lighting. An addendum revised lighting allowances for retail displays, as it allows more flexibility for designers and better reflects actual retail lighting function.

Schwedler cited forewords from three approved mechanical addenda to quantify a portion of the energy savings:

- Addendum an: “... would save about 18 trillion Btu of gas and oil annually once the existing boiler stock turns over.”
- Addendum g: “will save an estimated 1.05 Quads of cumulative primary energy by 2035.”
- Addendum f: “will save an estimated 2.3 Quads of cumulative primary energy by 2035.”

“These substantial savings are credited to the work of past Standard 90.1 Chair Jerry White, the Standard 90.1 committee, and those that aided in the rigorous public review process,” Schwedler said. “We know that many projects are achieving considerable energy savings at reasonable costs and ask the entire design, operation, and owner communities to share these project ideas and contribute toward future energy and energy cost savings.”

The cost of the I-P version of ANSI/ASHRAE/IESNA Standard 90.1-2007, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, is \$119 (\$95, ASHRAE members). The SI version will be available later this spring. The standard is co-sponsored by the Illuminating Engineering Society of North America (IESNA).

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.

Upcoming Events

Minnesota Chapter Meeting & Event Calendar

October 9th, 2007 Dinner

Meeting Topic: Tour — Energy High Bridge
Plant — Tour at 5 pm — Dinner at 6:30

-Sub Topic Student Night

October 31st, 2007 Seminar

Joint Venture w/ AEE — 7 Seminars and
Product Show

November 13th, 2007 Lunch

Technical Committee Review

—Sub Topic Research Promotion

December 11th, 2007 Seminar

Meeting Topic: MASDeC

—Sub Topic Membership

January 8th, 2008 Lunch

Meeting Topic: To Be Determined

-Sub Topic - History

February 12th, 2008 Seminar

Refrigeration Seminar

March 17th, 2008 Lunch

Meeting Topic: To be determined

April 8th, 2008 Seminar

Meeting Topic: Education Seminar

May 13th, 2008 Lunch

General Business Meeting

-Sub-topic: Installation of Officers/Past
Presidents Day/History

June 9th, 2006

Golf Outing

Northern Lights Chapter

To Be Announced

Rochester Section Schedule

To Be Announced

ASPE Meeting Schedule

<http://www.aspe.org/Minnesota/>

The Chapters meet's on the [3rd Wednesday](#)
of every month
@ 11:30 am -

Cedars Hall
602 University Ave. NE
Mpls. MN 55413

Details To Be Announced

Professional Directory



Energy Efficient Resources
PO Box 49813
3140 104th Lane
Blaine, MN 55449

Providing
High Efficiency
HVAC Systems
MN, ND, SD & WI

Phone: 763-786-3700
Fax: 763-398-3915
Web-Site: www.eerhvac.com

ClimateMaster, ClimateCraft, Chandler, DesChamps Technologies, Hays Fluid Control
E-Tech, VTAC, HeatCraft, USA Coil and Air, M&I, RenewAire and Williams Comfort

**2007-08 Student Dinners
Graciously Sponsored by:**

TO BE DETERMINED!

Space for Rent

Space for Rent

**Publication Deadline for the
Next Exchanger; December 25th, 2008**

**All submissions must be in electronic format and should be emailed to the
Editor: Daniel Chudecke – dchudecke@mulcahyco.com**

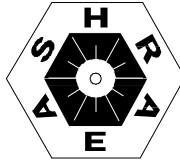
ñ ñ Society and/or Chapter dues Paid?

First **Yes/No** on Mailing Label = Society Dues

Second **Yes/No** on Mailing Label = Chapter Dues

ATTACHED: February Seminar Notice

MINNESOTA CHAPTER



AMERICAN SOCIETY OF HEATING, REFRIGERATING
AND AIR-CONDITIONING ENGINEERS, INC.

2008 REFRIGERATION SEMINAR

TUESDAY,
FEBRUARY 12, 2008

8:15 AM - 1:30 PM

Doubletree Park Place Hotel
Park Place Blvd.
Minneapolis, MN 55416
(952) 542-8600



1500

SEMINAR AGENDA

TIME	TOPIC
7:30 to 8:15	Registration
8:15 to 9:15	ASHRAE Standards 15 & 34 – Do We Understand What They Are? <ul style="list-style-type: none">• Standard definitions• Application of standards• Chiller room ventilation for different refrigerants Speaker: James Calm, Engineering Consultant, ASHRAE Fellow
9:15 to 9:30	Break
9:30 to 10:30	Future of Scroll Compressor Technology <ul style="list-style-type: none">• Latest advancements in digital technology• Basics of ultra high efficiency scroll• Capacity modulation: Variable speed technology• Design for efficiency and sustainability Speaker: Bart Powelson, Copeland/Emerson Climate Technologies
10:30 to 10:45	Break

10:45 to 11:45	Climate Change and HVAC Energy Solutions for LEED Certification <ul style="list-style-type: none"> • Latest philosophy and LEED • Global warming: Truth or Myth? • Facts about greenhouse gases • What can we all do to help! Speaker: Brian Key, Carrier Corporation
11:45 to 12:30	Lunch and Chapter Business Meeting
12:30 to 1:30	Relational Control: New Ultra-Efficient HVAC Control Technologies and Methods We Need to Apply Them Effectively <ul style="list-style-type: none"> • Relational control as it applies to HVAC components • Efficient chiller plants using multiple chillers with VFD controls Speaker: Tom Hartman, Hartman Company

REGISTRATION INFORMATION

ASHRAE OR RSES CHAPTER MEMBER:	ENCLOSED IS MY CHECK FOR \$100
NON MEMBER:	ENCLOSED IS MY CHECK FOR \$130
ASHRAE STUDENT MEMBER: .	FREE

A LATE FEE OF \$30 WILL BE ADDED TO THE ABOVE FOR REGISTRATION **AFTER FEB. 8, 2008.**

THE COST OF LUNCH, CHAPTER BUSINESS MEETING AND LUNCHEON SPEAKER IS **ONLY \$35.**

VENDOR/EXHIBITOR TABLE TOP DISPLAY

FOR \$250 (INCLUDES ONE LUNCH AND \$175 FOR ASHRAE RESEARCH)
 ONLY 6 TABLES ARE AVAILABLE: FIRST COME, FIRST SERVED!
 (EMAIL MARK MUHLSTEIN AT mark@mmstwincities.com FOR A TABLE RESERVATION)

REGISTRATION FEE INCLUDES

LUNCH, CHAPTER BUSINESS MEETING, 4 PRESENTATIONS AND AN AFTERNOON BREAK

CONTINUING EDUCATION

A TOTAL OF 5 (FIVE) PROFESSIONAL DEVELOPMENT HOURS (PDHs) ARE AVAILABLE

REGISTRATION FORM

MAKE CHECKS PAYABLE TO: MINNESOTA ASHRAE
2008 REFRIGERATION SEMINAR
TUESDAY, FEBRUARY 12, 2008

ENCLOSED IS MY CHECK FOR \$ _____

I AM AN ASHRAE/RSES CHAPTER MEMBER _____ I AM A STUDENT MEMBER _____

**REGISTRATION MUST BE RECEIVED BY FRIDAY, FEBRUARY 8, 2008
TO AVOID A LATE FEE OF \$30 AND TO ENSURE YOUR SPOT**

NAME: _____ COMPANY: _____

PHONE : _____ EMAIL: _____

SEND REGISTRATION TO:

Mark Muhlstein, Midwest Mechanical Solutions
5831 Cedar Lake Rd
Minneapolis, MN 55416
FAX: 952-738-5228

YOU CAN ALSO REGISTER ELECTRONICALLY (THE SUSTAINABLE WAY):

Email: mark@mmstwincities.com OR

Register online at www.mnashrae.org (and pay with a credit card!)

NO SHOWS WILL BE BILLED FOR THE SEMINAR, SO PLEASE PLAN ACCORDINGLY!

SPEAKER INFORMATION:

Session 1: ASHRAE Standards 15 & 34 – Do We Understand What They Are?

James Calm is an engineering consultant with expertise in air-conditioning and refrigeration systems including refrigerant issues and heat pump applications. He for a number of organizations including manufacturers, architectural and engineering firms, building owners, facility managers, utilities, and research organizations in the areas of performance, environmental, and safety analyses; assessments and feasibility studies; research, database development, and strategic code development, compliance reviews, and conformance assistance; and expert investigations and testimony. Jim is an ASHRAE Fellow and has served on a ASHRAE technical committees including TC 1.7, 2.5, 4.7, 8.11 and 9.4 and committees including ASHRAE SSPC 15, 34, 90.1. Jim is also a member of Sigma international honorary society for scientific and engineering research and Tau Beta Pi and honorary society for engineering.



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Session 2: The Future of Scroll Compressor Technology

Bart Powelson is Director of Commercial Air Conditioning Marketing for Emerson Climate Technologies, Inc. – Air Conditioning division and is based at the company’s headquarters in Sidney, Ohio. He has 13 years of experience in the air conditioning and refrigeration industry. Bart has held several key air conditioning and refrigeration marketing roles in Emerson Climate Technologies, Inc. including Manager of Business Development and Strategic Planning. Bart holds a Bachelor of Science degree and an M.B.A. in marketing from Purdue University. Bart is responsible for launching new compressor products and technologies, monitoring key air conditioning market trends and providing commercial marketing support to manufacturers and contractors. He led numerous launches of commercial compressor and electronic products including new refrigerants, capacity modulation, expanded displacement offerings and compressor diagnostics. Bart is an active participant in the U.S. Green Building Council.

Session 3: Climate Change and HVAC Energy Solutions for LEED Certification

Brian Key, P.E., LEED® AP, has over 20 years experience within the HVAC engineering business including system design, product marketing, business management, software system application, and business development for major customers. In his most recent assignment, Brian is Carrier’s Building Systems and sustainability advocate and external voice for the commercial applied system. He is responsible for educating consulting engineers, design-build contractors, owner/operators and utility representatives in the appropriate application of high HVAC system for LEED® certified projects. He has addressed international at various engineering conferences, ASHRAE keynote engagements and sessions in topics ranging from Sustainable Development for Mechanical to Energy Analysis for LEED Certification, Chilled Water System Applications, and Hourly Analysis Program (HAP).



systems
commercial
Services
solutions.
facility
efficiency
audiences
educational
Engineers
Carrier’s

Session 4: Relational Control

Thomas Hartman is Principal and the founder of The Hartman Company, a technology development and applications firm that works with manufacturers, end users and design teams in applying emerging HVAC and lighting technologies to achieve enhanced building environments and ultra-efficient operation. Among the most notable of Mr. Hartman’s recent innovations have been his formulation of the “Equal Marginal Performance Principle” and the development of new *Relational Control* concepts. Mr. Hartman holds a number of patents for advanced technologies and works world wide with manufacturing and engineering partners to develop sound, cost effective product and design solutions that utilize these technologies for a wide variety of applications. Mr. Hartman currently serves as an editorial advisor to *Heating, Piping and Air Conditioning Magazine* and the on-line publication, *automatedbuildings.com*. Mr. Hartman has lectured and written about comfort and energy issues for symposiums and periodicals all over the world.

