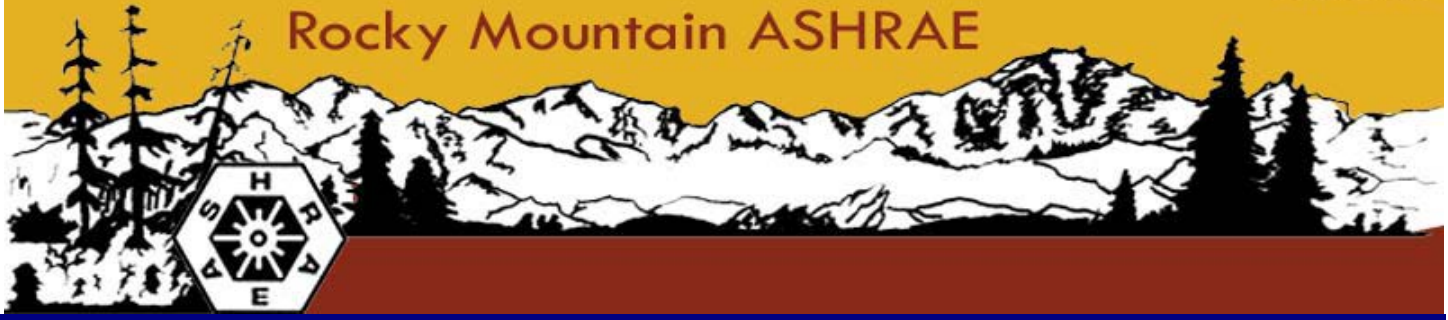


Rocky Mountain ASHRAE



VOLUME 52, NUMBER 9

MAY 2011

EDITOR: MIKE HARRINGTON

May MEETING

ASHRAE 2010 - 2011 MEETING SCHEDULE

MAY 4, 2011

GOLF: JUNE 20, 2011

REGION IX CRC IN EL
PASO: AUGUST 10-13,
2011

Denver Meeting

Date: Wednesday, May 4, 2011**Time:** 5:30 Registration
6:30 Dinner
7:00 Program Begins**Location:** Dave & Buster's
2000 S. Colorado Blvd
Denver, CO 80222**RSVP:** Jon Rundquist
jonathan.e.rundquist@jci.com**Cost:** \$25 Rocky Mtn Chapter Members
*Reservation must be made by 12:00 pm
May 02, 2011
\$30 Non-members and late reservations
\$20 Students

Fort Collins Meeting

Date: Wednesday, May 4, 2011**Time:** 12:30 Registration
Announcements
Program (Ends at 1:30)**Location:** Cache Bank
100 S. College Avenue
Fort Collins, CO 80524**RSVP:** Mike Fulton
MFulton@westernmechanicalsolutions.com**Cost:** \$10 Rocky Mtn Chapter Members

"Meeting and Exceeding High Performance Standards, Codes and Guidelines with Air-to-Air Energy Recovery Systems and Equipment"

This month we will hear from Paul Pieper on how as we move towards net zero energy buildings and a sustainable future for the built environment, many designers struggle with the seemingly conflicting requirements of the latest standards, codes and guidelines when trying to provide high performance HVAC systems that are energy efficient and capable of delivering superior IEQ. Fortunately, air-to-air energy recovery systems and equipment provide one of the most cost-effective and efficient ways to recycle waste energy while creating quiet and comfortable indoor environments. An overview of current and proposed standards and guidelines will be presented to identify areas where energy recovery is mandated and where energy recovery can be employed to meet and exceed performance requirements for efficiency, thermal comfort and ventilation air.

Paul Pieper, Eng., is the Marketing Manager for Venmar CES Inc. Mr. Pieper has over 15 years of Sales and Product Management experience in designing high performance HVAC systems and equipment for commercial and industrial applications. He holds a degree in Pure and Applied Science from Marianopolis College, a Bachelor of Engineering degree from the Department of Building, Civil and Environmental Engineering and a certificate in Software Development from Concordia University in Montreal.

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PRESIDENT'S MESSAGE

Dear Rocky Mountain ASHRAE:

We truly have the best members in the country. I am very pleased with your support and for those of you who could make it attendance at last Friday's yearly Chapter Technical Conference. What a great turn out! All the numbers are not officially in but we are projecting proceeds of nearly \$35,000 dollars, all of which will be sent into ASHRAE Society for Research Promotion. This event would not be as successful as it has been for so many years without such great members. Thank you so much.

If you were at our March meeting you already know who our new Chapter Board of Governor's member is. I am happy to announce that Megan Van Wieren with EMC Engineers, Inc. was voted in as our newest member. Megan is looking forward to the challenges she will face in the many years of service that she has ahead of her. I am happy to say our Chapter will be in good hands. Good Luck Megan!

Thanks again for your efforts, contributions, attendance and support of our Chapter Technical Conference. If you would like to continue to support ASHRAE Research or support ASHRAE Research for the first time you still have many opportunities to do so. You can always provide a direct donation to the Chapter, which we will deliver to Society in your name. You can contribute on the Society website but please make sure you note your donation is via the Rocky Mountain Chapter. Lastly why not have some fun while contributing to ASHRAE Research. Come out to our yearly golf tournament which is on June 20th at Hiwan in Evergreen. A large portion of the golf tournament proceeds go to ASHRAE Research as well. Thanks again if you have already given us your support.

As always if you have questions or concerns please feel free to email, phone, or just grab me during one of our monthly meetings

Sincerely,



Ken Urbanek, PE, ASHRAE HBDP, LEED AP

Chapter President
Rocky Mountain Chapter of ASHRAE

ASHRAE RESEARCH



Don't Wait, Please Donate for the 2010-2011 Calendar Year

Mail Check To:
ASHRAE RESEARCH
c/o Adam Bishop, CFM Company
1440 S Lipan St
Denver, CO 80223

Your contribution puts us closer to achieving
our goal. Please send what you can today!

* Individual contributions of \$100 or more and
corporate contributions of \$150 or more will
receive this year's Commemorative Coin
and Honor Roll Contribution status.

Name: _____

Company: _____

Address: _____

Telephone: _____

INDIVIDUAL	\$25.00	\$50.00	\$75.00	\$100.00
CORPORATE	\$75.00	\$100.00	\$175.00	\$250.00

Other: _____

Other: _____

Or Contact Adam Bishop at: 303.607.4438



ROCKY MOUNTAIN CHAPTER

CHAPTER TECHNOLOGY TRANSFER COMMITTEE

If you have any suggestions for meeting topics for the 2010/2011 ASHRAE year, please send your ideas to Michelle Swanson at mswanson@rmhgroup.com.

Chapter Technology Awards

We are currently seeking entries for our Chapter Technology Award for the 2011-2012 ASHRAE Year. All current members of ASHRAE may apply. Technology Award applications are accepted in the categories of commercial buildings, institutional buildings, health care, industrial & public facilities, residential buildings, and renewable energy use. Please submit these projects so you can receive your proper recognition.

On the next page you will find a copy of the short form. This is all you need to fill out for both the chapter and regional levels.

Contact Michelle Swanson at mswanson@rmhgroup.com with entries.



ASHRAE

CHAPTER/REGIONAL TECHNOLOGY AWARD APPLICATION

SHORT FORM

(7/29/08)

INTRODUCTION:

*This Short Form has been developed to stimulate more participation in chapter and regional competition. **This form is not intended to replace the full Society Technology Award Application form.** Regional winners using the short form will be required to complete the full Technology Award Application form before their applications can be forwarded for Society Competition. (This form does not require extensive narrative, plans or photographs.)*

INSTRUCTIONS:

- A. The individual submitting the Technology Award Application must be a current member of ASHRAE who had a significant role in the design or development of the project.
- B. Complete the "Short Form" and use it as the cover page.
- C. Provide a system schematic/diagram not larger than 11" x 17" in size. In addition, attach a brief narrative (maximum of 2 pages). The narrative should include the gross and net building areas applicable to the project, a description of the major building areas (i.e., operating rooms, laboratories, computer rooms, industrial processes, offices, warehouses) and a brief discussion regarding the following five criteria (if a criterion is not applicable, state accordingly):
 - Energy Efficiency
 - Indoor Air Quality
 - Innovation
 - Operation & Maintenance
 - Cost Effectiveness
 - Environmental Impact
- D. Submit your schematic, brief narrative, and completed form to your Chapter Technology Committee Chapter (CTTC) Chair for judging at the chapter level in accordance with their instructions.
- E. Winners in each category from the chapter competition will be submitted by the CTTC Chapter Chair to the Regional CTTC RVC Chair. Submit the appropriate number of copies as requested by your Regional RVC.
- F. It is highly recommended that each entrant confirm by letter (and retain a copy for record) to the owner that the owner has granted permission to submit this project to competition.

NOTE: ASHRAE Technology Awards are the HVAC&R industry's most prestigious honor for efficient energy use in buildings and environmental system performance. While the awards do not certify responsible charge or professional license status, they do recognize outstanding design innovation and successful implementation.

CHAPTER/REGIONAL TECHNOLOGY AWARD - SHORT FORM

1. Category (Check one and indicate New or Existing, if applicable)

- | | | |
|--|---------------------------------|-----------------------------------|
| <input type="checkbox"/> Commercial Buildings | <input type="checkbox"/> New or | <input type="checkbox"/> Existing |
| <input type="checkbox"/> Institutional Buildings | <input type="checkbox"/> New or | <input type="checkbox"/> Existing |
| <input type="checkbox"/> Health Care Facilities | <input type="checkbox"/> New or | <input type="checkbox"/> Existing |
| <input type="checkbox"/> Industrial Facilities or Processes | <input type="checkbox"/> New or | <input type="checkbox"/> Existing |
| <input type="checkbox"/> Public Assembly | | |
| <input type="checkbox"/> Residential | | |
| <input type="checkbox"/> Alternative and/or Renewable Energy Use | | |

2. Name of Building or Project:

City/State:

3. Project Description:

Project Study/Design Period:

Has the project been completed? Yes No

If YES, date completed:

If NO, scheduled date of completion (or other explanation):

4. Entrant (ASHRAE member with significant role in project) If multiple entrants, all must be listed.

a. Name:

Last

First

Middle

Membership Number:

Chapter

Region:

b. Address (including country):

City

State/Province

Zip/Country Code

c. Telephone: Office

d. E-mail address:

e. Company:

f. Member's Role in Project:

g. Member's Signature:

5. Engineer of Record:

By affixing my signature above, I certify that the information contained in this application is accurate to the best of my knowledge. In addition, I certify that I have discussed this entry with the owner and have received permission from the owner to submit this project to the ASHRAE Technology Awards Competition.

ROCKY MOUNTAIN ROSTER

Rocky Mountain ASHRAE 2010 - 2011 Board of Governors

Title/Committee Chair	Name	Email	Phone
President	Ken Urbanek	kurbanek@mkkeng.com	303.796.6000
President-elect/Tech Conf.	Adam Bishop	adamb@cfmcompany.com	303.607.4438
Vice President/CTTC Chair	Michelle Swanson	mswanson@rmhgroup.com	303.239.0909
Secretary	Jon Rundquist	jonathan.e.rundquist@jci.com	303.904.7923
Treasurer	Jessie Jones	jjones@rmhgroup.com	303.239.0909
Newsletter Editor	Mike Harrington	mharrington@setpointsystems.com	303.733.2300
Past President	Justin Dunkin	justind@cfmcompany.com	970.493.7293
Director	Kevin Parrot	kevinp@trinity-mechanical.com	303.442.3175
Director	John Stumpf	jstumpf@CarrierWest.com	720.472.0422
Northern Section Chair	Mike Fulton	mfulton@westernmechanicalsolutions.com	720.934.8273
Membership	Chris Garofoli	CGarofoli@victaulic.com	303.396.9006
Historian	Dale Eismueller	dale@werc.com	303.406.4080
Website	Shane Newman	shanenewman@gmail.com	303.421.6655
Student Activities	Craig Wanklyn	craig.wanklyn@me-engineers.com	303.421.6655
Sustainable Engineering	Megan Van Wieren	MeganLVanWieren@Eaton.com	303.974.1230
Government Activities	Celeste Cizik	CelesteLCizik@eaton.com	303.974.1212

SUSTAINABLE ENGINEERING COMMITTEE

If you would like to be a part of the meeting or have questions about the committee, please contact Megan Van Wieren at sustainable@rockymtnashrae.com.

The SEC committee is currently focusing on the following items and/or issues:

- Developing a sustainable project for a deserving non-profit organization in Denver to be presented at the ASHRAE 2013 Summer Conference
- Planning for green building tours
- Collaboration between ASHRAE , AIA, USGBC, and the Governor's Energy Office
- To be added to the Rocky Mountain ASHRAE SEC mailing list please contact Megan at: MeganLVanWieren@Eaton.com

2013 ANNUAL MEETING SUSTAINABILITY PROJECT

In preparation for the 2013 Annual ASHRAE Society Meeting, the Rocky Mountain chapter is looking for possible projects that the chapter can sponsor in an effort to reduce the environmental impact of the meeting.

Each year, ASHRAE selects a Sustainability Project for members to volunteer their time and services. This project traditionally is done for a non-profit organization that would significantly benefit from energy efficiency upgrades and improved systems. A recent project organized by the Utah chapter involved adding a solar hot water heating system to an existing YWCA.

If you or your organization knows of a project which may be a candidate for our 2013 Annual Meeting Sustainability Project, please contact Brian Lynch at 720.472.1037 or BL@westernmechanicalsolutions.com.

GREENING OUR MEETINGS

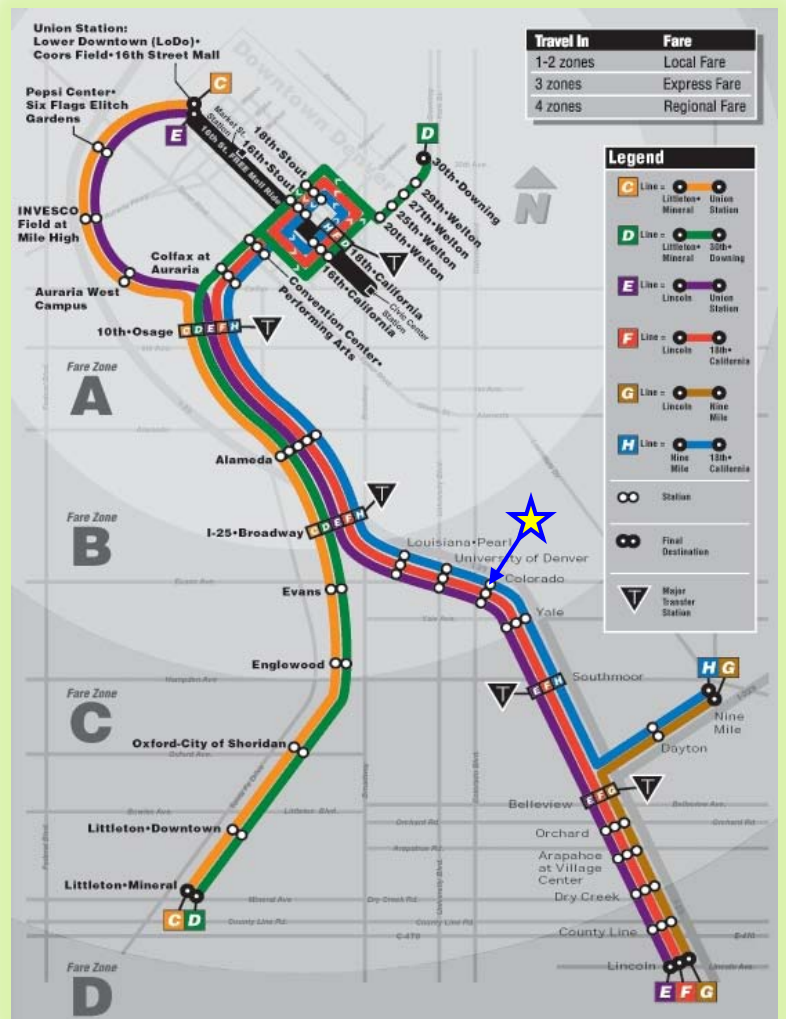
The Rocky Mountain Chapter of ASHRAE will present a free raffle ticket to anyone taking public transportation to the monthly ASHRAE meeting.

One raffle ticket will be given to each participant for each meeting. Visit www.rtd-denver.com for system maps and times or contact ridegreen@rockymtnashrae.com for further assistance.

Acceptable modes of alternative transportation:

- ✓ Walking
- ✓ Bicycling
- ✓ Bus
- ✓ Light Rail
- ✓ Alternative Fuel Vehicle
- ✓ High Efficiency Vehicle (35+ mpg)
- ✓ Carpooling (2 or more persons)

The ASHRAE meeting (Denver) at Dave & Buster's is located at the **Colorado Light Rail Station** for lines **E, F** and **H**. Any bus lines that pass through the **Evans and Colorado intersection** will also get you to Dave & Buster's.



MEMBERSHIP PROMOTION

Welcome to the “The Membership Promotion Page.” The chapter's roster has been updated. Please take a close look at the roster located at www.rockymtnashrae.com for the following.

1. If you are a member of ASHRAE (student, associate, member, etc.), your name should be included in the roster.
2. Only the city and state of your primary contact address are included.
3. If no email address appears where your email address should be, ASHRAE does not have an email address for you.
4. Your name appears in the same format as recorded by ASHRAE. If ASHRAE doesn't have your titles or post-nominal letters (e.g., Dr., P.E., Ph.D., etc.), they are not included.
5. Your current member grade is also shown. If you are listed as an Affiliate Member or Associate Member grade and are interested in advancing to Associate Member or Member grade, please update your bio on the www.ashrae.org website. Then send an email to membership@ashrae.org requesting the member grade advancement. I have recently completed this for myself, so I can talk you through it.
6. If any of your information is incorrect or if you want changes made to your information, please login at www.ashrae.org and update your bio by following the link to Manage Membership under the Membership tab. Once you reach the membership page, click on Address Change to take you to your bio.
7. If you have been omitted from this list and want to know why, please let me know and I can investigate. Common reasons for omission include human errors and unpaid ASHRAE membership dues; most typically are easily corrected.

If you have questions or need membership assistance please send an email to cgarofoli@victaulic.com or call Chris Garofoli at 303-396-9006.

Also, please look around your company and through your contacts to let people know about the benefits of joining ASHRAE. We continue to bring in new young members of the industry to keep them involved with technology and standard advancements.

ROCKY MOUNTAIN MEMBERSHIP APPLICATION



Name: _____ (Last) _____ (First) _____ (MI)

Status: Renewal ____ New Member ____ Address Change ____

Please circle preferred mailing address: HOME BUSINESS

Home Address and Phone

Business Name, Address and Phone

p: _____

p: _____

Preferred email address: _____

Society Membership Number / Grade: _____

Name Tag (\$10.00) Paid? Y N

Name to appear on name tag as: _____

I would like to be contacted about serving on one of the following committees or functions (Please circle):

- | | | |
|-----------------------|-----------------------------|--|
| A. Newsletter | F. Chapter Historian | K. Spouse's Night / Social Committee |
| B. Membership | G. Technical Seminars | L. Colorado Engineering Council (Committee Help) |
| C. Meeting Attendance | H. Research Fund Promotions | M. General |
| D. Education | I. Monthly Meeting Programs | N. Energy Committee |
| E. Golf | J. Publicity | O. Sustainable Engineering Committee |

Please mail this invoice and your check for \$50.00 (2010 / 2011 year) + \$10.00 (Name Tag if requested) payable to **Rocky Mountain Chapter ASHRAE** to the address listed below. ASHRAE will invoice you for both society and local dues every year following the first year.

Chris Garofoli
Rocky Mountain Chapter ASHRAE Membership Promotion Chair
c/o Victaulic
3416 Alcott Street Denver, CO 80211
cgarofoli@victaulic.com

HISTORY

Excerpts from the interview by Dale Eismueller (Rocky Mountain Chapter Historian) on February 9, 2011 with past president and continued volunteer to ASHRAE, Dave Olson:

Dave Olson has served on the chairs of the board and was the president for the local ASHRAE Rocky Mountain Chapter for the term of 1994-1995. He was the ASHRAE regional DRC for our region. He has donated many hours while continuing to manage a local engineering company. He started as newsletter editor in 1989 and has been involved in some way ever since. Dave feels that he was given a gift of ASHRAE relationships. It has been sixteen years since Dave Olson was the president of the local ASHRAE Rocky Mountain Chapter. Dave agreed to volunteer for many positions in the local ASHRAE chapter as well as the regional level positions. After joining our chapter in 1979, Dave has been an active member of ASHRAE for the past 20 years. Dave's favorite part of being president was the people, getting to know everyone on the board, at the meetings and events.

When Dave Olson served his time on the chairs of our local chapter board, he gained organizational skills and speaking skills, "standing in front of 100 people feels more comfortable now." Dave Olson judged an engineering competition as part of his duties as the president of our local chapter. One of the entries in the completion was for the D.I.A. (Denver International Airport) transportation project, back when the D.I.A. transportation project was being designed. The judging was taken place at the Lakewood Country Club followed by an awards ceremony.

As president, Dave wanted more young engineers in the society, and he engaged to make it happen. Dave said that the chapter has changed since he was on the board for the better. He is happy to see the involvement of young engineers becoming involved in the society. Dave also said that a lot more younger engineers are involved in ASHRAE today than the past.

Pay it Forward was made possible by Dave Olson, this is a wrist band that came about from the stand that Dave had taken at the society level of ASHRAE to donate money to the sustainability effort at each annual meeting at the society level. The ASHRAE donations were the birth of the "ASHRAE Sustainability Demonstration Project". This came about from Dave's desire to create a greener ASHRAE. Now ASHRAE has a sustainable project that is donated each year by ASHRAE and contributing engineers, these engineers give back to society each year to help others and make ASHRAE greener. These projects help to demonstrate green technologies, and bring life to the spirit of ASHRAE.

The first project was a solar domestic hot water system that was designed, constructed, and donated to the Salt lake City Y.W.C.A. (Young Women's Christian Academy). This project put Dave's picture in the Salt Lake City newspaper at the same time as the summer solstice. Dave's contributions back to the ASHRAE society are countless, and ASHRAE thanks him for all his efforts.

Dave has had a lot of fun through all of his experiences and hard work. Dave says that the main thing is that good programs at our local meetings are very important to our local society. Volunteering to ASHRAE is worth the effort.

ASHRAE SOCIETY NEWS AND PRESS RELEASES

For Release:
April 26, 2011

Contact Jodi Scott
Public Relations
678-539-1140
jscott@ashrae.org

ASHRAE Seeks Public Comment on Standard for Existing Buildings

ATLANTA – To ensure a sustainable future, the greatest opportunity lies in modifying existing buildings. Only 2 percent of construction projects are for new buildings, while 86 percent of construction dollars go into renovation of our existing building stock.

ASHRAE and the Illuminating Engineering Society (IES) are revising ANSI/ASHRAE/IESNA Standard 100-2006, Energy Conservation in Existing Buildings, to provide greater guidance and a more comprehensive approach to the retrofit of existing buildings for increased energy efficiency. The standard was first published in 1981, and the need for its requirements has grown as more attention is paid to improving energy in our current building stock.

The standard is open for an advisory public review until May 25, 2011. Visit www.ashrae.org/publicreviews for more information.

ASHRAE's advisory public review process is designed to seek suggestions for new, unusual or potentially controversial elements of a proposed standard that the committee feels would benefit from increased public scrutiny. Unlike ASHRAE's formal call for public comments process, comments received under advisory public reviews are supportive and do not need to be resolved.

Of the 94.6 quadrillion btu of energy consumed in the United States in 2009, 42 percent was used by commercial and residential buildings. Over the next 24 years, national electric consumption is expected to grow by over 22 percent and natural gas consumption by 16 percent. In the same period, the amount of commercial and residential floor space in the marketplace is expected to increase by 37 percent and 17 percent respectively.

“In order to offset the growing amount of floor space and subsequent increased energy demands, existing buildings must improve their efficiency, even if every new square foot were built and operated at net zero energy,” Rick Hermans, chair of the Standard 100 committee, said. “ASHRAE and IES are working to make Standard 100 the best source of practical, accurate and cost effective design guidance for existing buildings.”

“Achieving improvements in energy efficiency in existing buildings provides significant rewards in operating savings, conservation of resources and improvements in the environment,” Rita Harrold, IES director of technology, said. “The standard addresses the necessary guidance for a variety of users to develop action plans for their specific needs. Making the standard available for an advisory public review is an important opportunity for contributory comments that will add value to the final document.”

The revised standard provides comprehensive and detailed descriptions of the processes and procedures for the energy efficiency improvements of existing residential and commercial buildings in order to achieve greater energy efficiency.

“Cities like New York, which are constrained in their development due to infrastructure limitations, can use this tool to renovate their existing building stock, freeing up energy for new developments,” ASHRAE Presidential Member Gordon Holness, whose presidential theme focused on energy in existing buildings, said. “Since the standard sets specific energy targets based on building type and climate zone, it can also be used by state and federal agencies and by utility companies as a means of validating building efficiency improvements as a result of tax rebate and incentive programs. Given that 75 to 80 percent of all buildings that will exist in the year 2030, exist today, this rewritten standard gives us a vital resource to fulfill our sustainability goals. President Obama recently announced a series of tax and regulatory

changes with a collective goal for a 20 percent reduction in energy use in commercial buildings by the year 2020. That can only be achieved by addressing our existing building stock.”

The standard addresses major and minor modifications for both residential and commercial buildings, single and multiple activity buildings with variable occupancy periods and identifies an energy target for 53 building types in 16 climate zones/sub-zones.

The revised standard also identifies energy efficiency requirements for buildings without energy targets – mostly industrial, agricultural, data centers and special laboratories – and provides multiple levels of compliance.

Recognizing that the type of occupancy, operation and the use of a building plays a key role in its performance, the standard establishes the requirement for developing an energy management plan and an operation and maintenance plan, according to Hermans.

Included within the revised standards is criteria for energy use surveys, auditing, implementation and verification. Appendices are included for life cycle cost analysis procedures as well as identification of potential energy efficiency measures.

“Through this advisory public review, we are seeking broad and general comments on the text of the standard, the concepts of requirements and opinions about the value of the standard,” Hermans said. “Throughout the text there are questions seeking your advice as reviewers of this draft document. Please look at these questions and add your thoughts, answers and comments in the ASHRAE comments database as described in the instructions.”

###

For Release:
April 19, 2011

Contact: Amanda Dean
Public Relations
adean@ashrae.org
679-539-1216

Sustainability Knows No Borders: ASHRAE Annual Conference to Take Place in Montreal

ATLANTA–Montréal, known for bringing a bit of European charm to North America, blends cultures, languages and people from all over the world, culminating in a unique and vibrant joie de vivre. In the same way, the 2011 ASHRAE Annual Conference brings together members from all over the world to share their knowledge of HVAC&R.

The theme of the Conference, Sustainability Knows No Borders, serves as a reminder of ASHRAE’s international reach. The Society’s members bring different perspectives, design styles and experiences to the HVAC&R industry, but all work toward the same goal: Advancing HVAC&R.

New to the Conference Technical Program is the Engineering Tools track that seeks to keep up with the fast pace of development in energy modeling and building information modeling programs. Programs include BIM calculations as applied to the ASHRAE HQ building; numerical models for predicting dispersion of exhaust stacks, environmental impacts of buildings, building material properties for reducing energy consumption, code compliance, incorporating acoustics into BIM and large public spaces ; operation-oriented flexible building system modeling; an integrated project delivery medical center case study; HVAC design checklists that work; computational fluid dynamics; DOE’s new buildings energy efficiency HUB; VAV system controls; inverse modeling tools; and energy audits.

The Tech Program also addresses alternative technologies and net zero buildings and balance those programs with HVAC&R applications. Additional tracks include Refrigeration; HVAC Systems; Professional Skills; and Commissioning.

The technical program begins Sunday, June 26, and ends Wednesday, June 29, with all sessions at the Hilton Montreal Bonaventure. Complete program details are available at www.ashrae.org/montreal.

The ASHRAE Learning Institute offers nine instructor-led training opportunities, including full-day seminars on ASHRAE Standard 90.1-2010 and Data Center Energy Efficiency. Half-day sessions cover Energy Management, High Performance Building Design, Using Standard 90.1 to Meet LEED® Requirements, ASHRAE Standard 62.1 and Project Management for Improved IAQ.

The Conference keynote speaker is Rob “Waldo” Waldman, a former combat pilot, businessman and authority on leadership and sales. While relaying his personal experiences as a combat fighter pilot and businessman, he makes a parallel that is memorable and exciting, bringing fighter-pilot energy to each illustration. The Plenary session takes place Saturday, June 25 at Fairmont Queen Elizabeth.

ASHRAE technical tours offer an inside view of how technology developed by members is practically applied in building environments. Tours at the Annual Conference include the Bell Center, home of the Montréal Canadiens; the Montreal Biodôme; and the Beauharnois Generating Station.

The ASHRAE Annual Conference takes place June 25-29. Register before May 31 to save; purchases of a full registration also receive the Montreal Virtual Conference. Visit www.ashrae.org/montreal for more information. The Fairmont Queen Elizabeth will serve as the headquarters hotel.

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.

EMPLOYMENT LISTINGS 2011

Position(s): Outside Sales Engineer
Company: Ace Mechanical Equipment, Inc.
Location: Golden, Colorado
Contact: Careers@acemechanical.com
More Info:

Outside Sales Engineer –

<http://www.rockymtnashrae.com/wp-content/uploads/2010/06/Outside-Salesman-ad2.pdf>

Position(s): Senior Mechanical Engineer, Healthcare
Company: Scanlon Szynskie Group, Inc.
Location: Aurora, Colorado
Contact: <mailto:paula@ssgroupinc.com>
More Info:

Senior Mechanical Engineer, Healthcare –

<http://www.rockymtnashrae.com/wp-content/uploads/2010/06/SSG-combined-mech-engineer-request-2011.011.pdf>

Position(s): Mechanical Project Engineer
Company: Scanlon Szynskie Group, Inc.
Location: Aurora, Colorado
Contact: <mailto:paula@ssgroupinc.com>
More Info:

Mechanical Project Engineer –

<http://www.rockymtnashrae.com/wp-content/uploads/2010/06/SSG-combined-mech-engineer-request-2011.011.pdf>

Position(s): Mechanical Engineer
Company: EV Studio
Location: Denver, Colorado
Contact: sean@evstudio.com
More Info:

Mechanical Engineer –

<http://www.rockymtnashrae.com/wp-content/uploads/2010/06/mechanical-engineer-ad.pdf>

Position(s): Energy Efficiency Engineer
Company: Xcel Energy
Location: Denver, Colorado
Contact: recruiting@xcelenergy.com
More Info:

Mechanical Engineer –

<http://www.rockymtnashrae.com/wp-content/uploads/2010/06/21197-Energy-Efficiency-Engineer-Xcel-Energy.pdf>

Position(s): Commissioning Engineer
Company: McKinstry
Location: Denver, Colorado
Contact: mckhr@mckinstry.com
More Info:

Mechanical Engineer –

http://www.rockymtnashrae.com/wp-content/uploads/2010/06/Cx_Engineer-_1017.pdf

Position(s): Commissioning Services Leader
Company: Beaudin Ganze Consulting Engineers
Location: Denver, Sacramento, or Albuquerque
Contact: brbaugh@bgce.com
More Info:

Mechanical Engineer –

<http://www.rockymtnashrae.com/wp-content/uploads/2010/06/201101CxAServiceLeader.pdf>

Position(s): Controls Designer/Engineer
Company: Bridgers and Paxton Consulting Engineers
Location: Phoenix, AZ
Contact: employment@bpce.com
More Info:

Controls Designer/Engineer –

<http://www.rockymtnashrae.com/wp-content/uploads/2010/06/Controls-Designer-CO-ASHRAE-032811.pdf>

ODDS AND ENDS



Rocky Mountain Chapter

2011 ASHRAE Golf Tournament

To benefit ASHRAE Research

HIWAN GOLF CLUB
30671 CLUBHOUSE LANE
EVERGREEN, COLORADO
PHONE: (303) 674-3369

MONDAY JUNE 20, 2011

11:30 – 1:00 REGISTRATION / WARM-UP / LUNCH
1:15 SHOT-GUN START
6:00 AWARDS, APPETIZERS AND CASH BAR

THE EVENT WILL INCLUDE:

TEE GIFTS, AWARDS, LONGEST PUTT, CLOSEST TO THE PIN CONTESTS
AND LONG DRIVE

FORMAT (check one)

2-MAN SCRAMBLE OR
 STROKE PLAY (CHAMPIONSHIP)*
*Stroke Play Division is played with no handicap. Gross score only

ENTRY DEADLINE June 13, 2011

Name _____
Company _____
Address _____
City, State, Zip _____
Phone: _____
Fax: _____
Email (optional) _____

Players in Group	Division	(circle one)
1. _____	Championship	2-Man Scramble
2. _____	Championship	2-Man Scramble
3. _____	Championship	2-Man Scramble
4. _____	Championship	2-Man Scramble

_____ # of Players @ \$150 each = \$ _____ (lunch and award banquet included)

Hiwan Golf Club does enforce their dress code. Women's shorts need to be medium length (18 inches or longer)

Make Checks Payable to Rocky Mountain ASHRAE
Please return to:
Kevin Ainsworth c/o McGrath Incorporated
5353 W. Dartmouth Ave., Suite 506 Denver, CO 80227
Phone: (303) 969-0220 / Fax: (303) 985-5565
Email: kainsworth@mcgrath-inc.com



High Performance Building Program Quick Links (details below)

- *Final call for High Performance project consulting*
- *[Map](#) of GEO Partner Projects*
- *[Beyond the Building](#) webinar scheduled for April 27*
- *Additional details: [Integrated Design](#) webinar on May 24*

Final call for High Performance project consulting

GEO High Performance Building Program to continue supporting state-funded green building through limited consulting and resources

Thanks to an infusion of federal stimulus dollars, the Governor's Energy Office High Performance Building Program has provided consulting services for nearly 60 energy-efficient, sustainable building projects across Colorado. As the resources from the American Recovery and Reinvestment Act of 2009 are exhausted, the program will only offer consulting to a limited number of projects on an as-needed basis.

The High Performance Building program will accept applications for additional program partners through April 30. Owners, designers and contractors involved a state-funded project working towards High Performance goals should visit the High performance Building Program website and fill out a partnership application. For our existing partners, any applications received and approved prior to April 30, we will not be guaranteeing services beyond July 30, but will make every effort to provide complete services as outlined in the individual Memorandums of Understanding.

Applications received after April 30 will be assisted as practical by the High Performance Building Program staff and consultants as resources are made available.

ON-GOING RESOURCES

While project consulting is waning, there is a growing library of tools, resources and recorded courses which will remain available on www.rechargecolorado.org. These free, downloadable documents, [listed below](#), will help the seasoned designer or the newest building manager learn more about High Performance Building.

RECOGNITION PROGRAM

Finally, in the coming weeks, program partners which have participated in the High Performance Building Program will receive official recognition from the State of Colorado.

GEO Partner Projects Mapped

The High Performance Building Program has impacted many projects across Colorado. View the

[GEO Partner Projects map](#) for the specific projects and download a PDF of the details of each project. The details may include: teams, construction schedules and building features where available. Discover the High Performance buildings in your area, or a project similar to one you are planning.

*Join us for **Beyond the Building: The Occupant Factor 201** webinar Now approved for AIA LUs and USGBC CEUs*

Your building is only as 'High Performance' as its occupants. But how do you get a handle on the human behaviors that impact energy consumption within the space? "Beyond the Building: The Occupant Factor 201" delves into the mysteries of the living, breathing, window-opening people. A designer, professor and anthropologist uncover the factors that drive individuals to work with, or against, their surroundings to conserve energy.

From the design process to post-occupancy evaluations and occupant training, this free 90-minute webinar hosted by the Governor's Energy Office High Performance Building Program will cover the basics of human behaviors within buildings, design strategies, post-occupancy evaluations and advanced planning. Architects, Building Owners, Engineers, Sustainability Consultants and Contractors are encouraged to attend.

Date & Time: Wednesday, April 27, 2011; 11:30 a.m. - 1 p.m. MDT

For more information and registration, please visit our [registration](#) page.

The Power, Pitfalls, and Possibilities of Integrated Design for High Performance webinar set for May 24th

All people with the power to operate, own, design, or build buildings can benefit understanding the true implications of integrated design. Hosted by the Governor's Energy Office High Performance Building Program, this webinar will discuss what it means to put integration into real practice from pre-design budgeting and planning, through building occupation. Determine the legal and contractual implications of an integrated approach. Discover the attitudes, behaviors, and practices that hinder or facilitate integration and identify the benefits of integration which are critical to high performance building.

Architects, Building Owners, MEP Engineers, Sustainability Consultants and Contractors are encouraged to attend.

Date & Time: Tuesday, May 24; 11:30 a.m. - 1:00 p.m. MDT

For more information and to register, please visit our [registration](#) page.

Growing Library of Tools and Resources at your fingertips

Check out the latest project resources from the GEO High Performance Building Program

GEO Partner Projects Map

- [Project Locations](#)

Building Best Practices

- [Detention Centers](#)
- [Libraries](#)
- [Multi-Family Housing](#)
- [Recreation Centers](#)
- [Schools](#)
- [Vehicle Maintenance and Fire Stations](#)
- [Water Treatment Plants](#)

Case Studies

- [Alta Vista Charter School](#)
- [Anythink Brighton Library](#)
- [Baby Haven Childcare](#)
- [Douglas County Prototype School](#)
- [Durango Discovery Museum](#)
- [Mancos Library](#)
- [Nederland Community Library](#)
- [Nederland Wastewater Treatment Facility](#)
- [NREL Research and Support Facility](#)
- [Sangre De Cristo Pre K - 12 School](#)
- [Sargent Junior-Senior High School](#)

Intros to non-traditional building concepts

- [Solar Photovoltaics](#)
- [Energy Modeling](#)
- [Energy Modeling Software](#)

RFP Language for High Performance project team members

- [Architect](#)
- [General Contractor](#)

Contractor's tools in the kit include:

- LEED® [GEO Materials Verification Form and Workbook](#) for the contractor responsible for documentation to use for tracking products and waste during construction.
- LEED® [VOC limit job poster](#) indicates the project is a LEED® project and notes Volatile Organic Compound (VOC) levels that cannot be exceeded for particular products
- [VOC Pocket reference forms](#) for VOC limits by product to take to the building supply store
- LEED® [VOC Reference Sheet](#) that includes limits, as well as, which credits each product references
- LEED® [Materials Cheat Sheet](#) that acts as a quick reference based on what a product contains so that contractors can easily choose the appropriate credit

Additional items are also available on our [Program Resources](#) page.

New Archives Now Available

New presentations are available for the following webinars and workshops:

- [Energy Water Nexus 201](#)
- [High Performance Codes](#)
- [Recharging Historic Buildings](#)

For all High Performance Building presentation PDFs, visit the [Workshops & Webinar](#) page. To view the video archives and to obtain USGBC CEUs through these videos, please visit the [Video](#) page.



SAVE THE DATE! October 5-6

Make plans now to ATTEND the largest gathering of Facility Managers and Engineers in the Rocky Mountain Region!

Early Bird EXHIBIT RATES & SPONSORSHIPS Available NOW!

Call 303-771-2000 or email lcramer@expomasters.com or visit www.afec.biz for more information

Denver Metro BOMA Annual Trade Show & Conference is scheduled for this Friday, May 6 at the Hyatt Regency Convention Center Hotel.

For more info visit <http://www.bomadenvet.org/>

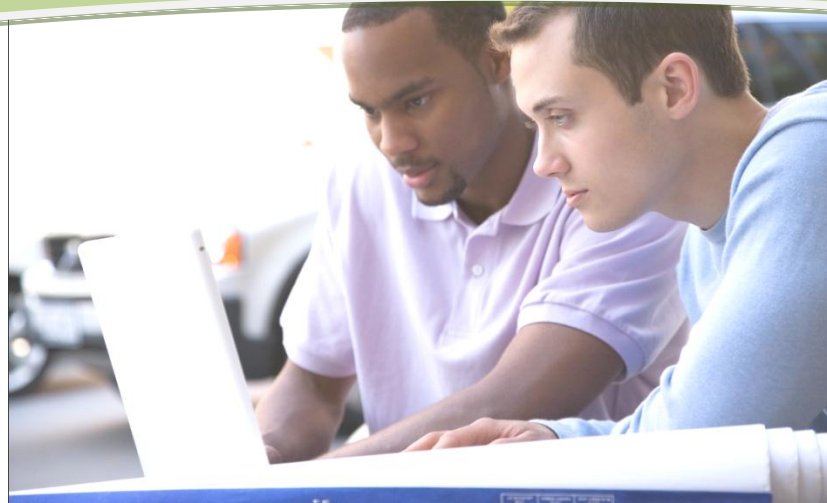
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CTTC ISSUE UPDATE

Chapter Technology Transfer Committee

Spring 2011



Free ASHRAE Webcast Highlights Ground Source Heat Pumps: Registration Now Open

ATLANTA – While temperatures above ground vary with the seasons, one constant is the temperature underground, which stays relatively the same all year. Designers in the built environment using ground source heat pump systems are harnessing the energy underground to help with heating and air conditioning in the buildings they design.

ASHRAE's upcoming webcast, "Ground Source Heat Pump Systems – Putting the Earth to Work for You," focuses on this method of using underground temperature to create a system using natural resources to save energy and money at the same time.

The webcast takes place April 21, 2011, from 1– 4 p.m. EDT.

"The overwhelming choice from our several webcast surveys has been ground source heat pump systems," Dave Shugars, chair of ASHRAE's Chapter Technology Transfer Committee Webcast Ad Hoc Committee, said. "This webcast will highlight several critical factors in the evaluation and design process that are essential to deliver system efficiency. From understanding ground characteristics, to avoiding pitfalls of design and installation, the webcast is a must see for discerning owners and designers alike."

The webcast presenters are Jeffrey D. Spitler, Ph.D., P.E., professor in the School of Mechanical and Aerospace Engineering, Oklahoma State University, Stillwater, Okla.; Kirk T. Mescher, P.E., principal, CM Engineering, Inc., Columbia, Mo.; and Mick Schwedler, P.E., manager, Applications Engineering, Trane, La Crosse, Wis.

Three Professional Development Hours (PDHs) or three AIA Learning Units (LUs) may be awarded to viewers who complete the participant reaction from online by May 5, 2011.

The live program will be archived online until May 5, 2011, for viewers who are unable to participate on April 21. Registration is required to view the archived program.

Online registration for the webcast began March 21, 2011. For more information on the webcast program, continuing education credits and ASHRAE ground source heat pump resources, visit www.ashrae.org/ghpwebcast. If you have questions about the webcast, call 678-539-1200 or email ashrae-webcast@ashrae.org.

What Say You:

What does CTTC mean to ASHRAE?

"Without effective CTTC Chairs, the Society fails. If we can't get people to a meeting in a well lit, comfortable location; with an engaging, easily understandable speaker; to hear a timely topic of broad interest; with a quality meal; and in a convenient location....they won't stay in ASHRAE nor encourage their colleagues to (MP fails); they won't donate to research (RP fails); they won't encourage students or young engineers to participate (oops there go Student Activities and YEA). You get the point. We in the CTTC business are Society's contacts to the membership. WE make the first impression. You're doing great."

- Jeff Gatlin, Reg. VII
RVC

2010-2011 CTTC Chair Bill Williams challenges ALL of us "For a massive effort from all of CTTC to market the dickens out of this program. I'd like to top 25,000 viewers...NO KIDDING!!! We're swinging for the fences! And I am sure we can do it with a little effort. Let's get the grassroots informed and energized!"

Consultant's Report:

"Viva ASHRAE!" has replaced those legendary Elvis words "Viva Las Vegas", at least this week in Sin City history.

Our Consultant delivered fabulous and informative presentations. Links to each power point provide:

Refrigeration- Don Siller
-Reaching out with speaker's list and Ad Hoc committee

At the Las Vegas meeting, REF's Consultant, Don Siller, gave a presentation to the Chapter Technology Transfer Committee updating them on REF activities. His presentation was well received and is now available on the REF webpage. CTTC and REF will form an Ad Hoc Committee to advance refrigeration at the chapter level and to identify opportunities for REF to support the chapters with their refrigeration needs. If you have any suggestions, we welcome all input. Send your comments to REFChair@ashrae.net.

Remember that submissions for the Milt Garland and Comfort Cooling awards are due by May 1st. The new submission format includes a cover form, similar to the forms required by the other technology awards. The cover form includes the required release information from the owner, and requires the Chapter and Owner information which REF will need to ensure that the Chapter with the winning submission gets their recognition, as well as the plaque, to present to the owner. Information on the award procedures can be found at REF's webpage:

The program is presented by Presidential Member **Kent Peterson**, the past Chair of SSPC 189.1. The "Hot Topics" presentation is available for **streaming now at www.ashrae.org/hottopics** for use by chapters, sections, regions and student branches.

ASHRAE Hot Topics

The Chapter Technology Transfer Committee launch of ASHRAE "Hot Topics" program is not only under way it's cleared the first hurdle at Member's Council.

The program features a one-hour video presentation on **ANSI/ASHRAE/USGBC/IES Standard 189.1-2009, Standard for the Design of High Performance Green Buildings.**

<http://www.ashrae.org/refrigeration>.

The webpage also includes some introductory and background material on these awards to assist members in securing the participation of owners or others who's permission is needed for the submission.



Professional Development Committee Report

John Nix

The ASHRAE Learning Institute (ALI) offers courses in a variety of lengths and modes of delivery, but all are developed by subject matter experts through a peer-review process. For more information, visit www.ashrae.org/education.

Instructor-Led Seminars

- **Full-day (6 hour)** courses.
- **Half-day (3 hour)** courses.
- **Group Learning:** Chapters may want to utilize and present material from a text-based, Self-Paced course in a series of lunch-&-learn or chapter program presentations.

Self-Paced Courses

- **eLearning** courses: Web-based, interactive, available 24/7, mostly introductory; visit <http://www.ashraeelearning.org/> for course descriptions and prices.
- **Text-based** courses: Introductory level; can be purchased through the ASHRAE Bookstore; visit <http://www.ashrae.org/education> and click on Self-Directed Learning for course descriptions and prices.

Chapter Professional Development Program

- **Seminars/Courses** are developed by ASHRAE experts through a peer-review process.
- Presentations are designed to be commercially unbiased.
- Participants may earn **continuing education credits** and can receive a certificate of attendance.

For course descriptions and additional information visit <http://www.ashrae.org/education/page/1809>.

www.ashrae.org/education

CONSULTANT UPDATES

All PowerPoints are posted [here](#).

Government Affairs – Tom Werkema
Legislation changes and what it means.

Advocacy – Doug Reed & Mark Ames
Local Chapter opportunities and the tools to help.

ASHRAE Foundation Learning Center
The recent renovation of Society Headquarters in Atlanta, GA included the addition of space appropriate for professional development opportunities.

Technology – Shanti Pless
- The hits just keep on coming – Introduction of the continuation of the Advanced Energy Design Guides (AEDG'S)

Tech Council - Ross Montgomery
-189.1 advances - U.S. Army Includes Standard 189.1 in New Sustainability Policy
The U.S. Army has instituted a new sustainable design and development policy that incorporates requirements of ASHRAE/USGBC/IES Standard 189.1-2009, Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings. The Army's policy sets a new approach to the design and construction of military construction projects and major renovations by requiring that projects follow specified requirements and guidance in the standard. The requirements address siting, energy efficiency, cool roofs, metering, storm water management and indoor and outdoor water consumption.

NCEES Model Law Update - Dick Hayter
Be aware of your State's licensing boards and offer ASHRAE position papers. The following link will direct you to the required papers.



Get Your ASHRAE Certification!

Certification Committee Report – Amy Musser

Now (6) certifications with the Building Energy Assessment Professional “BEAP” Launch in Las Vegas!

Our programs continue to gain recognition by other organizations, such as USGBC, and government agencies, such as DOE and NYSERDA.

The Certification Committee welcomes ideas for new certification programs. You can submit an idea by completing the Proposal for New Certification form at the bottom of www.ashrae.org/certification and e-mailing it to certification@ashrae.org.

You can find more information about ASHRAE's certification programs at www.ashrae.org/certification.

Or, you can go directly to a program at:

www.ashrae.org/BEAP
www.ashrae.org/BEMP
www.ashrae.org/CPMP
www.ashrae.org/HFDP
www.ashrae.org/HBDP
www.ashrae.org/OPMP