

**Denver Meeting Information**

**DATE:** April 2, 2014  
**TIME:** 11:30 am – Registration and Lunch Buffet  
 11:45 am – Announcements  
 12:00 pm – Program Begins  
**LOCATION:** Dave & Busters  
 2000 South Colorado Blvd.  
 Denver, CO 80222  
**RSVP:** [www.RockyMTNASHRAE.COM](http://www.RockyMTNASHRAE.COM)  
**COST:** \$25 Rocky Mtn Chapter Members  
 \*Reservation made by 5:00 PM on Monday  
**\$35 Non-members and late reservations**  
 \$20 Students

**“Static Mixing: Economically Addressing Root Cause of Temperature Stratification**

The speaker will discuss the phenomenon of temperature stratification in air handling units, the typical system impact on operation of economizers & proper ventilation rates, and the economic benefits of using static mixing technology to address problem root cause vs. other more complicated and costly control methods to mitigate risks. **Dave Dorste:** An ASHRAE member since 1985 Dave spent 20 years with Sporlan Valve Company as a Design Engineer, Engineering Manager, Product Manager, and Business Unit Manager for refrigerant controls. Dave then continued his career with Parker Hannifin after their acquisition of Sporlan in 2005 where he served as Global Accounts Manager and Global Business Development Manager-Strategic Planning. In 2013 Dave became Director of Engineering for Blender Products here in Denver. Dave has served ASHRAE as a member on TC8.8 and TC10.7, and as member and chairman of SPCs 17, 158, and 159 for the development of ASHRAE Standards. He has also served on UL/AHRI High Pressure Task Force for the application of R410a, the joint UL/EPA Flammable Refrigerants Task Force, UL 429 Industry Advisory Panel, the DOE Better Building Alliance team for Energy Conservation in Supermarkets, and the Industry Advisory Committee to the Mechanical Engineering Department at the Missouri University of Science & Technology. Dave hold 5 US and 3 foreign patents for refrigerant flow controls including electronic expansion valves and control logic for refrigerant vapor compression systems.

**This presentation has been registered for 1.0 GBCI Credits**

**Upcoming Events:**

- May 2<sup>nd</sup>, 2014 Technical Conference.
- May 7<sup>th</sup> – Denver Dinner Meeting and Fort Collins Lunch Meeting.

**Table of Contents**

PRESIDENT’S MESSAGE \_\_\_\_\_ 2  
 ROCKY MOUNTAIN BOG ROSTER \_\_\_\_\_ 3  
 ASHRAE RESEARCH \_\_\_\_\_ 4  
 SUSTAINABLE ENGINEERING COMMITTEE \_\_\_\_\_ 6  
 GREENING OUR MEETINGS \_\_\_\_\_ 7  
 YOUNG ENGINEERS IN ASHRAE (YEA) & STUDENTS \_\_\_\_\_ 8  
**GOVERNMENT AFFAIRS** \_\_\_\_\_ 9  
 MEMBERSHIP PROMOTION \_\_\_\_\_ 10  
 CHAPTER MEMBERSHIP APPLICATION \_\_\_\_\_ 11  
 ROCKY MOUNTAIN CHAPTER HISTORY \_\_\_\_\_ 12  
 ASHRAE SOCIETY NEWS AND PRESS RELEASES \_\_\_\_\_ 13  
 EMPLOYMENT \_\_\_\_\_ 17

**ROCKY MOUNTAIN CHAPTER LOGO POLO ORDER FORM**

**RM ASHRAE is a USGBC/GBCI education provider!**

The Rocky Mountain Chapter of ASHRAE is now a USGBC/GBCI education provider. If you would like to have a presentation submitted to the USGBC for LEED AP credentialing credits, please contact Jessie Jones [jjones@rmhgroup.com](mailto:jjones@rmhgroup.com) or Michelle Swanson [mswanson@rmhgroup.com](mailto:mswanson@rmhgroup.com) for more information.

# PRESIDENT'S MESSAGE

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Dear Rocky Mountain ASHRAE:

First I would like to thank Rad Ganesh from Twin City Fans for his presentation on FEG. Seems like it was good timing to cover that subject.

This month we will be having a lunch meeting in Denver. Dave Dorste with Blender Products will be speaking on “Static Mixing: Economically Addressing Root Cause of Temperature Stratification.”

Please mark your calendar for April 17<sup>th</sup>. We will be broadcasting an ASHRAE webinar on IEQ and Energy Efficiency at MKK. For more information and to RSVP, please go to our website. The webinar will take place over lunch, so the chapter will be providing pizza.

It’s that time again where we will be voting for our Junior Board position. We are excepting names and need to finalize candidates prior to April’s meeting. The candidates will then talk briefly at the meeting. We will send a Survey Monkey out to membership for a vote after the meeting. If interested, please contact myself or any other board member.

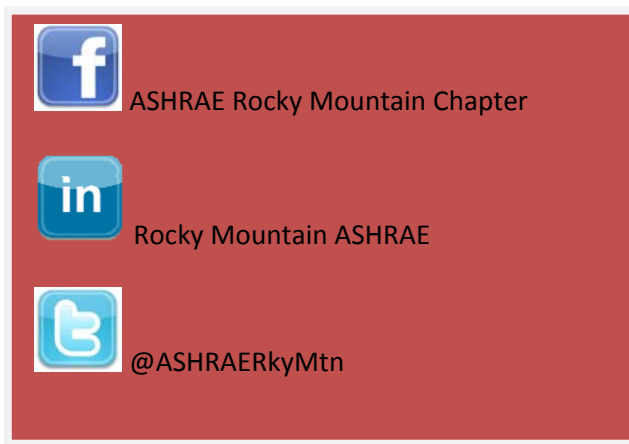
Please make sure to mark your calendar for the Tech Conference on May 2. We will be sending out the brochure via email shortly. We are very excited and think we have a good lineup of speakers. We have changed the format slightly this year. Instead of doing 6 presentations in each track, we will be doing 5. Then at the end of the day, in lieu of the typical 6<sup>th</sup> presentation, we will be holding one presentation for all to attend that will update everyone on 90.1. If you have any questions, feel free to contact Jessie Jones or myself.

If you have any questions or concerns, please do not hesitate to contact me.

Best Regards,

Jon Rundquist

Chapter President  
Rocky Mountain Chapter of ASHRAE



# ROCKY MOUNTAIN BOARD OF GOVERNORS ROSTER

## Rocky Mountain Chapter 2013 - 2014

Title/Committee Chair	Name	Email	Phone
President	Jon Rundquist	<a href="mailto:President@RockyMtnASHRAE.com">President@RockyMtnASHRAE.com</a>	303.428.2800
President-elect/Tech Conf.	Jessie Jones	<a href="mailto:TechConference@RockyMtnASHRAE.com">TechConference@RockyMtnASHRAE.com</a>	303.239.0909
Vice President/CTTC Chair	Mike Harrington	<a href="mailto:CTTC@RockyMtnASHRAE.com">CTTC@RockyMtnASHRAE.com</a>	720.221.1078
Secretary	Megan Sterl	<a href="mailto:Secretary@RockyMtnASHRAE.com">Secretary@RockyMtnASHRAE.com</a>	303.974.1230
Treasurer	Tony Anderson	<a href="mailto:Treasurer@RockyMtnASHRAE.com">Treasurer@RockyMtnASHRAE.com</a>	303.280.1401
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Past President	Michelle Swanson	<a href="mailto:PastPresident@RockyMtnASHRAE.com">PastPresident@RockyMtnASHRAE.com</a>	303.239.0909
Director	Mike Day	<a href="mailto:Director1@RockyMtnASHRAE.com">Director1@RockyMtnASHRAE.com</a>	303.421.6655
Director	Jody Templeton	<a href="mailto:Director2@RockyMtnASHRAE.com">Director2@RockyMtnASHRAE.com</a>	303.295.6111
Northern Section Chair	Mike Fulton	<a href="mailto:NorthernSection@RockyMtnASHRAE.com">NorthernSection@RockyMtnASHRAE.com</a>	720.934.8273
Membership	Chris Garofoli	<a href="mailto:Membership@RockyMtnASHRAE.com">Membership@RockyMtnASHRAE.com</a>	303.396.9006
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Sustainable Engineering	Sara Frame	<a href="mailto:Sustainable@RockyMtnASHRAE.com">Sustainable@RockyMtnASHRAE.com</a>	303.328.3436
Government Activities	Steve Ferguson	<a href="mailto:Government@RockyMtnASHRAE.com">Government@RockyMtnASHRAE.com</a>	303.428.2800
Historian	Ainsley Thrailkill	<a href="mailto:Historian@RockyMtnASHRAE.com">Historian@RockyMtnASHRAE.com</a>	303.796.6074
Honors & Awards	Eugene Mitchell	<a href="mailto:Awards@RockyMtnASHRAE.com">Awards@RockyMtnASHRAE.com</a>	303.322.0165
Social Media	Andrew Van Essen	<a href="mailto:SocialMedia@RockyMtnASHRAE.com">SocialMedia@RockyMtnASHRAE.com</a>	303.257.2642
YEA Chairs	Bryce Buchanan Rachel Romero	<a href="mailto:YEA@RockyMtnASHRAE.com">YEA@RockyMtnASHRAE.com</a>	719-330-7971 303-886-8254

# ASHRAE RESEARCH



*Don't Wait, Please Donate for the 2013-2014 ASHRAE Year*

Mail Check To:  
**ASHRAE RESEARCH**  
c/o Jessie Jones, The RMH Group  
12600 W Colfax Ave, Suite A-400  
Lakewood, CO 80215

**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  
receive this year's Commemorative Coin  
And Honor Roll Contribution status.

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

INDIVIDUAL	\$25.00	\$50.00	\$75.00	\$100.00	Other: _____
CORPORATE	\$75.00	\$100.00	\$175.00	\$250.00	Other: _____

Or Contact Jessie Jones at: 303-312-4641


































## THANK YOU Donors!

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- JPG Engineering
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- TM Sales

**Our goal for this year is to raise \$83,100**



# ASHRAE RESEARCH DONOR LEVELS AND RECOGNITION

Receives 1 day Meeting Registration*							-----		
Receives 2 tickets to Members Night Out and Welcome Party*									
Presented Commemorative Sculpture									
Individually recognized at President's Luncheon*									
Invited to President's Luncheon*									
Invited to Board of Directors Luncheon*									
Listed on special Display at President's Luncheon*									
Group photo published in spring issue of ASHRAE Insights									
Receives personalized shadowbox plaque							-----	-----	
Listed on RP Display in Registration							-----		
Receives Gold ASHRAE Commemorative Coin & Plaque							-----		
Receives Silver ASHRAE Commemorative Coin & Plaque					-----	-----	-----	-----	
Receives Bronze ASHRAE Commemorative Coin & Plaque				-----	-----	-----	-----	-----	
Receives Antique ASHRAE Commemorative Coin & Plaque			-----	-----	-----	-----	-----	-----	
Receives blue desktop coin holder		-----	-----	-----	-----	-----	-----	-----	
Listed in annual <i>Investor Honor Roll</i>									
	Honor Roll Donor** \$150-\$249	Major Donor – Antique \$250-\$499	Major Donor – Bronze \$500-\$999	Major Donor – Silver \$1000-\$2499	ASHRAE Associate \$2500-\$4999	ASHRAE Partner \$5000-\$9999	Golden Circle Donor \$10,000 - \$19,999	Platinum Circle Donor \$20,000+	

\* ASHRAE Winter Meeting

\*\* Individual Honor Roll Donor begins at \$100

# SUSTAINABLE ENGINEERING COMMITTEE

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## March Meeting

**DATE:** 3/26/2014

**TIME:** 12PM – 1PM

**LOCATION:** Eaton Energy Solutions  
143 Union Blvd, Ste 350  
Lakewood, CO 80228

**RSVP:** Sara Frame  
[sustainable@rockymtnashrae.com](mailto:sustainable@rockymtnashrae.com)

The Sustainable Engineering Committee is committed to advocate sustainable design, construction and operation to our members, the industry and our community through advocacy group meetings and educational seminars. We strive to promote sustainable practices at all ASHRAE events and sponsored activities.

This committee meets once a month for planning and coordination. If you have questions about the committee, please contact Sara Frame at [sustainable@rockymtnashrae.com](mailto:sustainable@rockymtnashrae.com).

## EARTH DAY VOLUNTEERING EVENT WITH USGBC

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In honor of Earth Day, USGBC is planning a service project to build a community garden. Rocky Mountain ASHRAE members are welcome to participate. After working in the garden, Rocky Mountain ASHRAE volunteers will be moving to a nearby pub to relax and chat. LEED Continuing Education hours are available for volunteering at this service project.

### Rocky Mountain Green in the Community (Event #2 – Community Garden)

- Date: **Friday, April 18, 2014**
- Time: **1:00 PM - 4:00 PM** (ASHRAE will be meeting for drinks afterwards)
- Location: **1400 Lafayette St. Denver, CO**

USGBC is partnering with Colorado Interfaith Power & Light to build a garden at First Unitarian. Project will consist of removing numerous juniper bushes with roots, planting fruit trees, and laying mulch.

**Parking space is limited, so carpooling is highly encouraged.**

Able to donate material or lend tools to volunteers?

- 1) Lend shovels, saws, and axes and rakes for the day.
- 2) Donate wood, or composite deck boards, fruit trees, seedlings and mulch

Email Sharon Alton at [sharon@usgbccolorado.org](mailto:sharon@usgbccolorado.org) if you are able to lend tools or donate materials.

## To register for the volunteer event...

Go to <http://www.usgbccolorado.org/news-events/news-events.html> and scroll down to “Rocky Mountain Green in the Community”, April 18<sup>th</sup> on the Calendar. Hit “Register”. Under “Choose Event”, pick “First Unitarian Gardening”.



# GREENING OUR MEETINGS

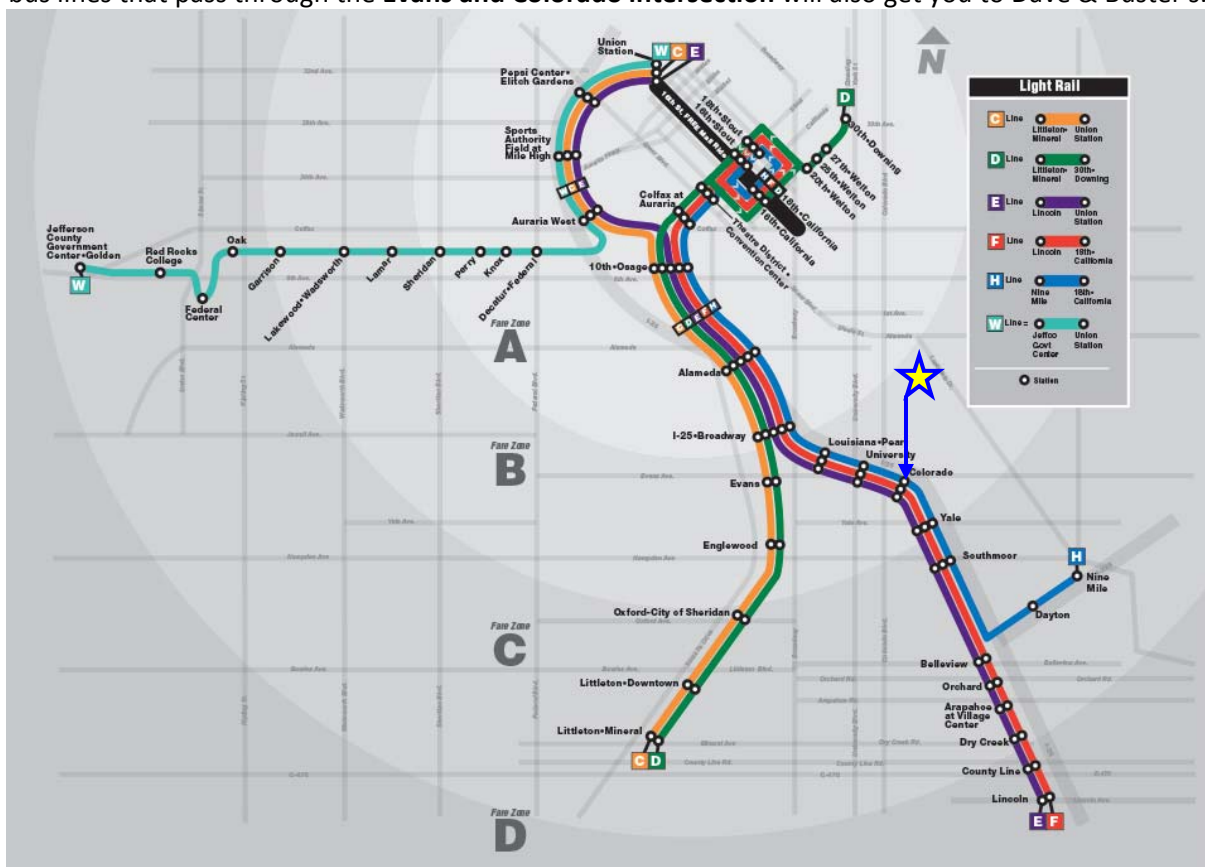
The Rocky Mountain Chapter of ASHRAE will present a free raffle ticket to anyone taking public transportation to the monthly ASHRAE meeting.

One raffle ticket will be given to each participant for each meeting. Visit [www.rtd-denver.com](http://www.rtd-denver.com) for system maps and times or contact [ridegreen@rockymtnashrae.com](mailto: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.



# YOUNG ENGINEERS IN ASHRAE (YEA) & STUDENTS

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**Young Engineers in ASHRAE (YEA) events are open to all ASHRAE Members, you do not have to be younger than 35 to attend.**

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## **HVAC on Tap Educational Series**

The Rocky Mountain ASHRAE YEA committee has organized an HVAC educational series for young engineers to enjoy a night of free education, dinner and networking. Thank you to McNevin Co. for kicking off the learning series with a successful first presentation.

HVAC on Tap # 2: Hosted by ATS Rocky Mountain

Wednesday, April 9 @ 6 pm @ Breckenridge Brewery, 2220 Blake St. Denver, CO 80205

The cost of dinner is covered, so the event is free to attend with the exception of whatever drinks you would like.

Please RSVP to [YEA@RockyMtnASHRAE.com](mailto:YEA@RockyMtnASHRAE.com) by Monday, April 7 if you would like to attend. Feel free to email with questions as well.

## **Rocky Mountain ASHRAE Technical Conference Scholarship**

The deadline to apply for the scholarship for the Rocky Mountain ASHRAE Technical Conference is Friday, April 11. The Technical Conference is Friday, May 2 at the Sheraton Denver West Hotel in Lakewood. The scholarship covers the cost of attending the event. Please submit applications to [Nicolas.delassendro@siemens.com](mailto:Nicolas.delassendro@siemens.com) by April 11.

## **Inaugural ASHRAE Kickball Tournament, Sponsored by YEA**

Save the Date: Saturday, June 7 @ Montair Park, 5620 W. 14th Ave, Lakewood 80214

This will be an all-day event, and is open to all ASHRAE members and their spouses/significant others.

Start organizing teams of 10+ people - within your company, across companies, etc. More information will follow in the coming weeks, but for now, spread the word and start recruiting team members!

If you would like to be a sponsor for this event, please contact [YEA@RockyMtnASHRAE.com](mailto:YEA@RockyMtnASHRAE.com).

## **Applications Now Being Accepted for the HVAC Design: Level 1 - Essentials Training Scholarship**

ASHRAE's *HVAC Design: Level 1 - Essentials* training targets those new to the field, either as new hires or engineers and others in career transition. The next opportunity to attend is:

Atlanta, June 9 - 11 (apply by April 11).

The YEA Institute scholarship is offered for the training listed above and covers the full cost of Level 1 registration.

<https://www.ashrae.org/membership--conferences/yea-scholarship-for-hvac-design-essentials-workshop>





# GOVERNMENT AFFAIRS

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Government Affairs is now its own standing committee. This committee's responsibilities are to keep the Chapter members informed of Government activities such as new laws and regulations, legislative and building department activities as well as making ourselves available to the local government entities as an information source. The committee is chaired by Steve Ferguson who can be reached at [Government@RockyMtnASHRAE.com](mailto:Government@RockyMtnASHRAE.com) if you are looking for more information or are interested in being involved, at [mames@ashrae.org](mailto:mames@ashrae.org).

**Prospects Dim for Congressional Action on Energy Efficiency** The reintroduction of the Energy Savings and Industrial Competitiveness Act (also known as “Shaheen-Portman”) ([S.2074](#)) came about with a large amount of fanfare – ten bipartisan amendments were added to the bill, along with seven Republicans and six Democrats – including top leadership of the powerful Senate Energy & Natural Resources Committee. On top of this, the House recently passed the Energy Efficiency Improvement Act ([H.R.2126](#)), which was approved by a vote of 375 to 36, with about equal numbers of support from Democrats and Republicans.

With all of this bipartisan momentum it seemed likely that some form of energy efficiency legislation would be enacted by Congress in the near term. However after several meetings with Republican and Democratic office staffers, it is clear that the prospects of enactment are still far away. The reasons for this are fairly simple, and perhaps understandable: This is an election year, and Republicans and Democrats alike wish to hold votes on issues that would increase their popularity with their constituents, and avoid votes that would decrease their support. Thus, unless an agreement to limit amendments on Shaheen-Portman or the Energy Efficiency Improvement Act can be reached (a very unlikely scenario at this stage), energy efficiency – and many other issues – are effectively put on hold until after November.

That said, an energy efficiency bill hasn't been enacted for seven years, and pressure continues to build in Congress for action. Thus, with steady, strong bipartisan support for efficiency, Congressional Leadership could decide to take up this issue at almost any time. As a result, the building community finds itself asking not “if” energy efficiency legislation will be enacted, but “when”.

In 1884, the New York Times reported that “sending mails by electricity” was to be investigated by the Post Office Committee of the U.S. House, by providing for contracts with an existing telegraph company. The proposal was that since carriage of letters by steam locomotives was already done by contract, the delivery of mails by electricity seemed analogous. Such a method would be economical, and “might speedily make the present volume of business seem infantile.” Contracting was suggested, since in 1869, an earlier report of the House Post Office Committee had been adverse to the idea of government ownership and expense of postal telegraph lines.

# MEMBERSHIP PROMOTION

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Welcome to the "The Membership Promotion Page." We would like time to welcome the following new ASHRAE members for the month of February:

- Mr Jeffrey Shay
- Miss Kelly Croom
- Miss Cynthis Lynch
- My Hayes Zirnhelt
- Dr Stu Asay
- Mr Larry Tiner
- Mr Andrew Rogers
- Mr Ronald Shughart

We would also like to welcome the following new student members:

- Miss Esperanza Arab
- Miss Denise Mauney

If you have questions or need membership assistance please send an email to [membership@rockymtnashrae.com](mailto:membership@rockymtnashrae.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.



ASHRAE Rocky Mountain Chapter



Rocky Mountain ASHRAE



@ASHRAERkyMtn

In 1973, the first portable phone call was placed by inventor Martin Cooper. The phone was 10 inches in height, 3 inches deep and an inch-and-a-half wide and weighed 30-oz. Since then, cell phones have shrunk to a mere palm-size weighing 4-oz, and are used by a billion people around the world. Cooper's first "shoebox" phone replaced a car phone of the time that weighed more than 30 pounds and cost thousands of dollars. A car phone owner had to drill a hole in his car to install the antenna and most of the phone sat in the trunk. A control unit with a handset was placed inside the car.





# MEMBERSHIP APPLICATION

Name: \_\_\_\_\_

New Member       Renewal       National Member ID \_\_\_\_\_  
\*National membership is required to join chapter.

Address: \_\_\_\_\_  
 \_\_\_\_\_

Email: \_\_\_\_\_

Name Tag: \_\_\_\_\_ (\$10)      Yes   
\*\*Name as it is to appear on the tag.

I would like to be contacted about participating in the following events.

Mentor	Trade Show	Meeting Volunteer	Sustainability Project
Meeting Presenter	Raffle item for meeting	Committee Participation	

Please make check payable to **Rocky Mountain Chapter ASHRAE**.

Annual Membership	\$50
Name Tag	\$10
<b>Total</b>	_____

Please mail to:  
  
 Chris Garofoli  
  
 3416 Alcott St Denver, CO 80211  
  
[membership@rockymtnashrae.com](mailto:membership@rockymtnashrae.com)

# ROCKY MOUNTAIN ASHRAE HISTORY

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With the Tech Conference complete with a Sustainability track right around the corner, it seems appropriate to look back at the Rocky Mountain Chapter's accomplishments in regards to energy conservation.

June, 1978

"Energy Conservation Committee: Chairman: Jim Ponder. The past year the ASHRAE Energy Committee has seen the adoption of a statewide energy conservation code modeled after the ASHRAE Standard 90-75. This committee and its individual members have put forth great effort to see that the state adopts a realistic code that can begin to result in reduced energy consumption in new structures. We feel that the three years of effort have resulted in a code that accomplishes these goals."

In 1983, the space shuttle Challenger roared into orbit on its maiden voyage. It was named after the British Naval research vessel HMS Challenger that sailed the Atlantic and Pacific oceans during the 1870's. Challenger joined the NASA fleet of reusable winged spaceships and flew nine successful Space Shuttle missions. But on 28 Jan 1986, its tenth launch, the Challenger and its crew of seven were lost 73 seconds after launch when a booster failure resulted in the breakup of the vehicle.

In 1941, the first hydrogen-cooled electrical generator for outdoor installation in the U.S. was put into operation. Built by the General Electric Company for the city of Glendale, Cal., it was rated 20,000 kW and cost \$391,669. It was mounted on an open deck. (The first GE-built, hydrogen-cooled indoor generator started operation started on 12 Oct 1937). In modern hydrogen-cooled turbo-generators, hydrogen is used as a coolant fluid. The stator core is direct cooled with hydrogen, for example, at a pressure of 3-6 bar. The advantage of hydrogen is a high thermal conductivity and lower friction than air-cooled generators, thus more efficient operation, lower fuel consumption, highest output capacity, and lowest operating cost.



## Revised ASHRAE Standard Helps to Compare Building Energy Performance

ATLANTA—When it comes to the how-to of measuring a building’s energy use, there is much to take into consideration. Are the measurements of a building’s area—used in the equation to derive energy use per square foot—to be taken from the exterior dimensions or to the centerline of the wall? Since they are normally unoccupied, are storage spaces to be included or not?

The newly revised ANSI/ASHRAE Standard 105-2014, *Standard Methods of Determining, Expressing, and Comparing Building Energy Performance and Greenhouse Gas Emissions*, supports commonality in reporting the energy performance of existing or proposed buildings to provide a consistent method of measuring, expressing and comparing the energy performance of buildings.

“A standard method of measurement is needed in order to be able to compare one building's energy use to another,” Keith Emerson chair of the Standard 105 committee, said. “For instance, comparing one building's summer energy use to another building's winter use would be comparing apples and oranges.”

According to Emerson, the new edition of Standard 105 now includes procedures for going beyond site energy to calculate the impact of building energy use on primary (source) energy and greenhouse gasses.

It also provides a common basis for reporting building energy use in terms of delivered energy forms and expressions of energy performance; for comparing design options; and for comparing energy performance in terms of energy resources used and greenhouse gas emissions created, both across buildings and for energy efficiency measures within buildings.

“To keep the standard flexible, a number of decisions are left to those who adopt it, including what should be calculated beyond site energy and the multipliers for those additional calculations,” Emerson said.

Primary energy and greenhouse gas equivalence conversion factors have been left to the discretion of the adopting agencies and authorities, which are available from a number of sources, including an informative appendix in the standard. The standard has also been upgraded to code enforceable language.

The cost of Standard 105-2014, *Standard Methods of Determining, Expressing, and Comparing Building Energy Performance and Greenhouse Gas Emissions*, is \$58 (\$48 ASHRAE members). To order, contact ASHRAE Customer Contact Center at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), fax 678-539-2129, or visit [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore).

## ASHRAE Webcast Registration Opens March 17

ATLANTA – Registration for the free 2014 ASHRAE Webcast, “Buildings in Balance: IEQ and Energy Efficiency,” is now open at [www.ashrae.org/ieqwebcast](http://www.ashrae.org/ieqwebcast).

The webcast will broadcast live on April 17, 2014, from 1-4 p.m. EDT.

“The webcast will identify the link between energy efficiency and indoor environmental quality (IEQ) through the integrated design process,” Andy Cochrane, chair of ASHRAE’s Chapter Technology Transfer Committee, which oversees

# ASHRAE SOCIETY NEWS AND PRESS RELEASES (CONT.)

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the event, said. "Participants will be able to recognize the importance of the four cornerstones of IEQ and explain how system selection can benefit energy efficiency and IEQ. The presenters will describe best practices for performance measurement protocols and explain the role of post occupancy evaluation in fine-tuning building performance. Viewers will also learn about the common design, commissioning and operational pitfalls of IEQ. 'Buildings in Balance' will describe how energy and efficiency can be achieved, without compromising IEQ."

Webcast presenters are:

- 2013-14 ASHRAE President William P. "Bill" Bahnfleth, Ph.D., P.E., Fellow ASHRAE, ASME Fellow, professor of Architectural Engineering, director of Indoor Environmental Center, The Pennsylvania State University
- James W. Bochat, president, Commissioning Concepts, Phoenix, Ariz.
- Tim McGinn, P.Eng., ASHRAE-Certified High Performance Building Design Professional, principal, DIALOG, Calgary, Alberta, Canada
- Jerry M. Sipes, Ph.D., P.E., vice president of engineering, Price Industries, Inc., Suwanee, Ga.

The IEQ Webcast has been approved for three Learning Units (LUs) by the American Institute of Architects (AIA) and three Continuing Education Hours (CEs) by GBCI. The state of New York also recognizes AIA course approval.

Visit [www.ashrae.org/ieqwebcast](http://www.ashrae.org/ieqwebcast) for more information on the Webcast and continuing education credits, as well as ASHRAE IEQ resources.

Not able to view the live webcast? Be sure to register and take advantage of the free online archive. The archive allows viewers unlimited access to the webcast online until May 2, 2014. Registration is required to view the archived webcast

**SAVE THE DATE**

**April 17, 2014**

**1:00pm - 4:00 pm EDT**

**FREE ASHRAE WEBCAST**

***Buildings in Balance: IEQ and Energy Efficiency***

This **FREE** webcast will feature industry experts who will identify the link between energy efficiency and Indoor Environmental Quality (IEQ) through the integrated design process. Viewers will be able to recognize the importance of the four cornerstones of IEQ and how system selection can benefit both energy efficiency and IEQ.

Visit [www.ashrae.org/IEQWebcast](http://www.ashrae.org/IEQWebcast) for additional information about the program, sponsorships, continuing education credits, speakers, and registration.



# EMPLOYMENT OPPORTUNITIES

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Go to our website to open these links <http://rockymtnashrae.com/classifieds.php>

Job Title	Company	Date Posted
<a href="#">Mechanical Engineer II</a>	Beaudin Ganze Consulting Engineers, Inc.	April 29, 2013
<a href="#">Application Engineer</a>	Setpoint Systems Corporation	August 30, 2013
<a href="#">Sales Engineer</a>	Coolerado Corporation	January 09, 2014
<a href="#">Senior Engineer</a>	PCD Engineering Services	January 10, 2014
<a href="#">Territory Sales Engineer</a>	Grundfos	January 13, 2014
<a href="#">Building Energy Engineer</a>	Group 14 Engineering	January 14, 2014
<a href="#">Commissioning Agent / Project Manager</a>	Iconenergy, Ltd.	January 20, 2014
<a href="#">HVAC Design Engineer</a>	20/20 Engineering, Inc.	February 11, 2014
<a href="#">Mechanical &amp; Electrical Engineers</a>	MDP Engineering Group	February 18, 2014
<a href="#">Mechanical Engineer II</a>	Beaudin Ganze Consulting Engineers, Inc.	April 29, 2013
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## ASHRAE Jobs Website Tool:

ASHRAE has now partnered with the job board service Bird Dog to promote employment opportunities for the ASHRAE community. This effort is called ASHRAE Jobs and can be linked to from the ASHRAE home page or [www.ashraejobs.com](http://www.ashraejobs.com).

