

Denver Meeting Information

DATE: Wednesday, November 6, 2013
TIME: 5:30 PM – Registration
 6:30 PM – Dinner
 7:00 pm – Program Begins
LOCATION: Dave & Busters
 2000 South Colorado Blvd
 Denver, CO 80222
RSVP: 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

Fort Collins Meeting Information

DATE: Wednesday, September 4, 2013
TIME: 12:00 Registration/Program Begins
NEW LOCATION: 1st Bank 2644 S. Timberline Rd
RSVP: Mike Fulton
mfulton@westernmechanicalsolutions.com
COST: \$10 Rocky Mtn Chapter Members

“Hydronic Loops: Why Performance Does Not Always Match Design”

Energy and performance models make a few faulty assumptions about hydronic performance. By understanding these assumptions, we can have a better view of actual performance. This presentation will examine the performance impact of improper valve sizing, unstable system pressures and balancing device selection. It also examines the physical effects of valve authority and coil degradation.

David Kandel currently works for Belimo as an Application Consultant. After graduating from the University of Rochester (NY) with BS/MS in Mechanical Engineering, David spent the early part of his career designing control valves for Belimo, including their first generation pressure independent valve. Today, David spends the bulk of his time supporting consulting and facilities engineers and teaching about products and applications in the area of hydronics. David lives in Castle Rock, CO with his wife of 7 years, his 4-year old daughter and her 6-month old Labrador Retriever... his name is Slick.

This presentation has been registered for 1.0 GBCI Credits

Upcoming Events:

- November 6th Technical Meeting-Denver Dinner and Fort Collins Lunch
- December 4th Technical Meeting-Denver Dinner
- January 8th Technical Meeting-Denver Dinner and Fort Collins Lunch
- January 24th-DU Hockey Night. DU vs. North Dakota
- May 2nd, 2014 Technical Conference.

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ROCKY MOUNTAIN CHAPTER LOGO POLO ORDER FORM

PRESIDENT'S MESSAGE

PRESIDENT'S MESSAGE

Dear Rocky Mountain ASHRAE:

First I would like to thank Molly Rice with Captive Aire for speaking at our lunch meeting. Her presentation was very informative and well attended. Many of you in attendance may have seen a few issues we had regarding long lines, running out of food and having to add seating at the last minute. We had a high number of attendees that did not register ahead of time and this is the result. We will never turn anyone away from our meetings, but it is very important that you RSVP ahead of time so we have an accurate head count to give to the venue. Even if you decide that morning that you will be able to attend, please RSVP. We want to try and make the meetings as enjoyable for you as possible and that starts the minute you show up at the meeting.

Our speaker for November will be David Kandel and he will be presenting on “Hydronic Loops: Why performance does not always match design”. This will be a lunch meeting in Fort Collins and a dinner meeting in Denver. Please keep an eye out as the meeting location in Fort Collins will be changing for this month as remodeling is taking place at the Cache Bank.

We had a very successful Brewery Tour again this year. It started up at Oskar Blues in Longmont and then hit Beer By Design, Colorado Cider Company and Hogshead Brewery in Denver. We were able to raise \$355 for ASHRAE Research, the most to date for the tour. A special thanks to Jessie Jones for once again organizing the event.

I know I mentioned this last month, but wanted to do it again. We will keep our Facebook, LinkedIn & Twitter pages current with meeting announcements; industry related events as well as pictures from ASHRAE events. The newsletter has the links for each of these, so please take a minute to join them. You can also access them from our website.

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

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 or Michelle Swanson mswanson@rmhgroup.com for more information.



ASHRAE Rocky Mountain Chapter



Rocky Mountain ASHRAE



@ASHRAERkyMtn



ROCKY MOUNTAIN BOARD OF GOVERNORS ROSTER

Rocky Mountain Chapter 2013 - 2014

Title/Committee Chair	Name	Email	Phone
President	Jon Rundquist	President@RockyMtnASHRAE.com	303.428.2800
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Student Activities	Craig Wanklyn	Student@RockyMtnASHRAE.com	303.421.6655
Sustainable Engineering	Sara Frame	Sustainable@RockyMtnASHRAE.com	303.328.3436
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Social Media	Andrew Van Essen	SocialMedia@RockyMtnASHRAE.com	303.257.2642
YEA Chair	James Newman	YEA@RockyMtnASHRAE.com	303.421.6655

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!

- Roger Abrahamson
- Tony Anderson
- Trevor Bromberg
- John Freeman
- Mike Harrington
- Michael Haughey
- Jessie Jones
- Mark Labac
- Brian Lynch
- Scott Martin
- Jon Rundquist
- Karl Selby
- Megan Sterl
- Michelle Swanson
- David Willets
- Engineered Products Company – Denver
- Haynes Mechanical Systems
- McNevin Company



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

November Meeting

DATE: 11/20/2013
TIME: 12PM – 1PM
LOCATION: Group 14, 1325 E 16th Ave, Denver
RSVP: Sara Frame
sustainable@rockymtnashrae.com
303-328-3436

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.

2014 SUSTAINABILITY PROJECT

Salvation Army | Crossroads

The 2013 Sustainability Project at the Denver Rescue Mission was a huge success for Rocky Mountain ASHRAE, Energy Outreach Colorado, and the Denver Rescue Mission. It improved both the comfort and the energy efficiency of the shelter. Thank you again to all those chapter members and companies who donated so generously of their time, money, and materials to complete the project.

The Sustainable Engineering Committee plans on partnering with Energy Outreach Colorado for a new project this next year. Energy Outreach Colorado has asked us to evaluate a potential project for the Salvation Army at their Crossroads location. This year's project is expected to be on a much smaller scale compared to last year. More information about how to get involved will be coming soon. For questions, please contact Celeste Cizik, the Sustainable Engineering Committee's EOC Liaison, 303-807-5990.

PLANNING FOR SUSTAINABILITY TRACK FOR THE MAY 2ND CONFERENCE

The SEC is planning the topics and speakers for the Sustainability Track of the May 2nd Tech Conference. If you have any sustainable-related topics that you would like to see or have suggestions, please contact Sara Frame, sustainable@rockymtnashrae.com, 303-328-3436.

Are you aware of the Building Energy Quotient (bEQ) program and how it's helping building owners achieve levels of improved building performance. Setting high standards for improving energy performance is a major focus of ASHRAE's mission and we believe bEQ is an effective tool in this effort. bEQ is specifically designed to identify factors causing the gap between a building's design potential and its actual performance in operation. Only those who hold an ASHRAE Building Energy Modeling Professional or Building Energy Assessment Professional certification may submit workbooks and benefit fully from the bEQ program. At <https://www.ashrae.org/education--certification/certification/beq-brochures-for-your-use> you'll find revised brochures that reflect ASHRAE adding the As Designed rating to bEQ and how certification supports the program. Please let us know if you have any questions.

GREENING OUR MEETINGS

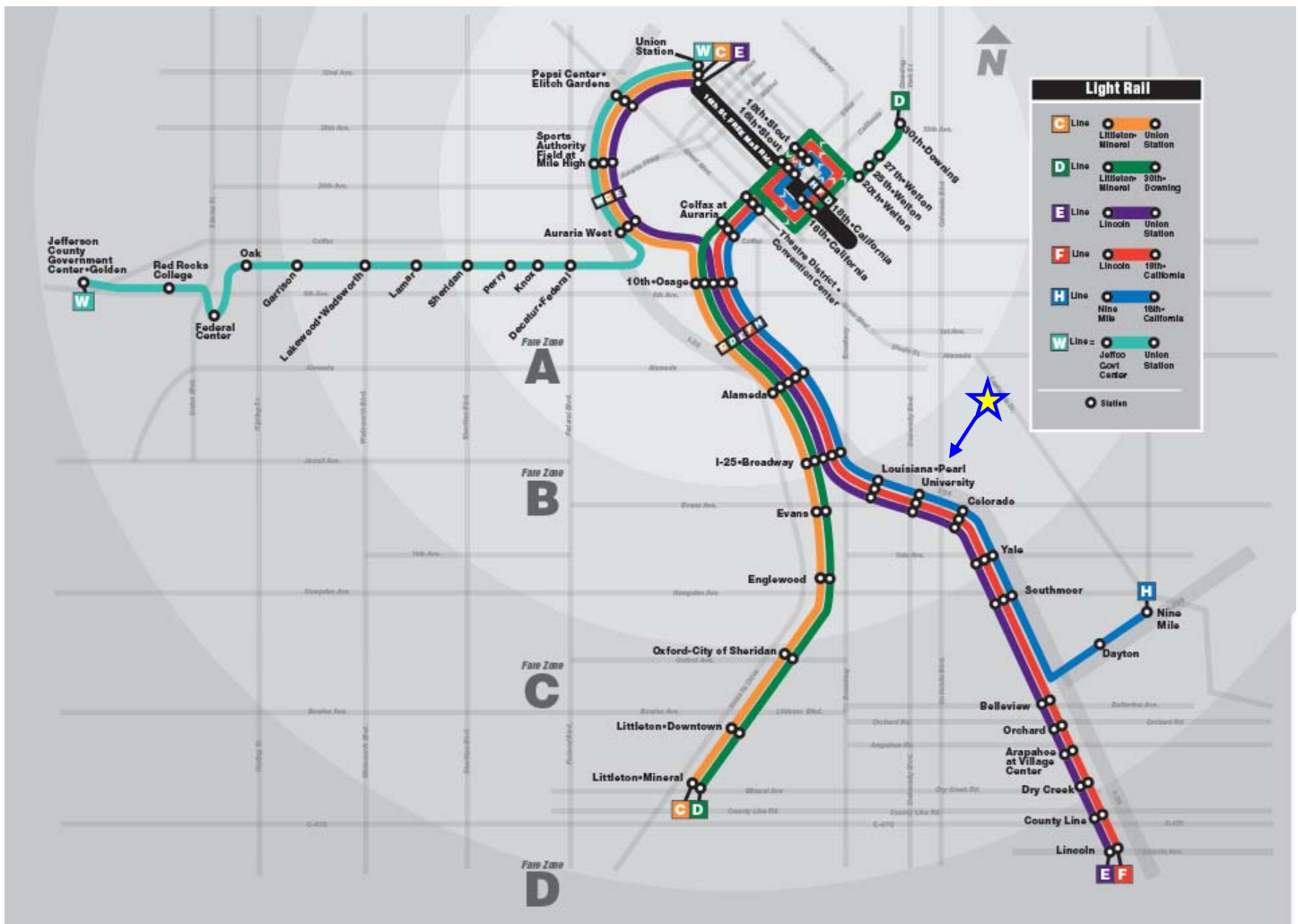
The Rocky Mountain Chapter of ASHRAE will present a free raffle ticket to anyone taking public transportation to the monthly ASHRAE meeting.

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.



YOUNG ENGINEERS IN ASHRAE (YEA) & STUDENTS

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

Please see the flyer on the next page for information on the Prost Brewery Tour. There will also be a planning meeting after the tour to discuss ideas for future YEA meetings including:

- FE/PE Study Groups
- FE/PE Study Material Library
- Site Tours
- Annual Kickball Event
- Mentoring Program
- Educational Series
- YEA Shadowing Opportunities

Contact YEA Committee Chairman James Newman at YEA@RockyMtnASHRAE.com for more information.

Are you a YEA member that would like to attend the ASHRAE winter conference in New York City? The Rocky Mtn. ASHRAE chapter will sponsor one YEA member to attend the ASHRAE 2014 winter conference. The chapter will reimburse up to \$1000 in expenses for the selected individual. If you are interested in applying or have any questions for the ASHRAE 2014 winter conference scholarship please contact yea@RockyMtnASHRAE.com by Oct 11th.

Student Members four scholarships in an amount up to \$1,000 each are to be awarded locally by the Rocky Mountain Chapter. The scholarships will be awarded to full or part time students who plan to attend the spring semester. Selection will be based on interest, goals, need and academic achievement. The awards will occur at the Rocky Mountain ASHRAE Student Night November 6, 2013. Please see the 2013 Student Scholarships application form on page 12.

Industry History:

In 1824, the Renssalaer School was founded in Troy, N.Y., by Stephen van Renssalaer becoming the first engineering college in the U.S. It opened on 3 Jan 1825, with the purpose of instructing persons, who may choose to apply themselves, in the application of science to the common purposes of life." The first class of 10 students graduated on 26 Apr 1826. The first director and senior professor was Amos Eaton who served from Nov 1824 - 10 May 1842. The name of Renssalaer Institute was adopted on 26 Apr 1832, and Renssalaer Polytechnic Institute on 8 Apr 1861.



STUDENT SCHOLARSHIPS

**FOUR SCHOLARSHIPS IN AN AMOUNT UP TO \$1,000 EACH
TO BE AWARDED LOCALLY
BY THE ROCKY MOUNTAIN CHAPTER OF ASHRAE**

The scholarships will be awarded to full or part time students who plan to attend the spring semester. Selection will be based on interest, goals, need, and academic achievement.

The announcement of awards will occur at the **Rocky Mountain ASHRAE** Student Night

November 6, 2013

Interested students must submit the following:

- a. Application General Information
- b. A cover letter (two-page maximum) describing interests, professional goals, internship experience, and financial need.
- c. A one page current resume.
- d. A one page document describing scholastic achievement and involvement in ASHRAE

Interested students should submit materials via mail to the address below or electronically to the email address below by Wednesday, October 30, 2013 to:

Craig Wanklyn
M-E Engineers, Inc.
10055 W. 43rd Avenue
Wheat Ridge, CO 80033

phone: (303) 421-6655
craig.wanklyn@me-engineers.com

CONTACT YOUR FACULTY ADVISOR, STUDENT BRANCH PRESIDENT, OR CRAIG WANKLYN FOR MORE DETAILS. YOU MAY ALSO CHECK OUT WWW.ROCKYMTNASHRAE.COM FOR MORE INFORMATION!

GOVERNMENT AFFAIRS

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 if you are looking for more information or are interested in being involved.

Rebuilding America's Schools Act Introduced in Senate

Recently a group of high-ranking U.S. Senators introduced a bill that would help finance school renovation and construction. The Rebuilding America's Schools Act (S.1523) would:

- **Permanently extend and expand the Qualified Zone Academy Bond (QZAB) program.** QZABs finance school renovations. The bill would make the QZAB program permanent, and increase its allocation from \$400 million per year to \$1.4 billion per year, the levels authorized under the American Recovery and Reinvestment Act.
- **Permanently reinstate the successful Qualified School Construction Bond (QSCB) program.** QSCBs help finance the construction of new schools, but expired at the end of 2010. The bill would reinstate the QSCB program with an allocation of \$11 billion per year, the level authorized under the Recovery Act; and
- **Make Qualified Zone Academy Bonds easier to use.** The bill would restore an expired law that previously allowed school districts to choose to receive direct payments from the Treasury Department to subsidize the interest on the bonds instead of tax credits. It would also allow school districts to meet the requirement of obtaining a 10% contribution from the private sector by pooling their bonds with those of other school districts.

"Our children deserve the very best learning environment we can provide. We know there is a direct correlation between an up-to-date school building and student performance and morale, so it's critical to the success of our students that we improve existing schools and build new ones," said Sen. Jay Rockefeller (D-WV), one of the bills' sponsors.

A House version (H.R.1629) of this bill was introduced last April. Both bills have been referred to the tax committees in their respective chambers, where they may sit while the broader tax reform discussion matures.

For additional information, please contact Mark Ames, ASHRAE's Senior Manager of Federal Government Affairs, at mames@ashrae.org.

MEMBERSHIP PROMOTION

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

- Mr Kevin Moyers
- Mr Sean MacKelvie
- Mr Joe Roemen
- Mr John Reed
- Mr Clarence Burkhalter
- Mr Gabriel Bliss
- Mr Dan Purdy
- Mr Paul Doughty
- Mr Scott Harbaugh
- Mr Taylor Roberts
- Ms Caitlin Anderson
- Mr Ken Hilton
- Mr Stephen Lynch
- Mr Jak Hollinger

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.



ASHRAE Rocky Mountain Chapter



Rocky Mountain ASHRAE



@ASHRAERkyMtn

In 1867, the first U.S. patent for a refrigerated railroad car was issued to J.B. Sutherland of Detroit, Michigan (No. 71,423). This described an insulated car with double walls, double roof and double floor with the space between filled with sawdust, felt or other suitable material. Ice chambers at each end of the chamber would carry about 800 pounds of ice. Hanging flaps were designed to maintain air circulation such that warmer air moving upward would then flow through the ice chamber, and thus cooled, be returned to the body of the car. Iron pipes mounted under the roof were installed for hooks carrying meat, or other edibles. Matting was positioned between the inner sliding door and outer door to keep the car as air-tight as possible.





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
Total	_____

Please mail to:

Chris Garofoli

3416 Alcott St Denver, CO 80211

membership@rockymtnashrae.com

ROCKY MOUNTAIN ASHRAE HISTORY

For the Rocky Mountain Chapter, ASHRAE has not always stood for the American Society of Heating, Refrigerating and Air-Conditioning Engineers.

In March of 1978, ASHRAE stood for:

Annual
Skiing
Honorary for
Recalcitrant
Air-Conditioning
Engineers

...aka the "Fifth Annual Ski Outing to Winter Park." The first annual ski outing was held at Keystone, March 1st 1974. The Ski Outings/Trips moved around occurring in Arapahoe Basin, Beaver Creek, Copper, Vail, and Winter Park. The last record of an official annual ski trip was for April 12th 1996 at Arapahoe Basin.

In June of 1978, ASHRAE stood for:

Aquatic
Society of
Hydrotherapy and
River-rafting for
Adventurous
Eccentrics

...aka the "River Trip." A three day float. A second rafting trip was organized in 1986.

As stated by Past President Norman G. Almquist "these outings are directed at helping us all develop closer relationships."



ASHRAE SOCIETY NEWS AND PRESS RELEASES

ROCKY MOUNTAIN CHAPTER MEMBERS WIN REGION TECHNOLOGY AWARDS

12 projects were received for judging. I enlisted the help of Tom Lewis and Scott Wayland to judge these projects. Unfortunately the judging was not complete by the CRC so no awards were given at that time.

All judging has been completed (both regional and society). At the regional level, it became clear to me, Tom, and Scott that Region IX has an abundance of technical knowledge and skill. The projects we received were all excellent and it was not easy picking winners. Four projects were awarded 1st place in the region and selected to advance to society for society level judging. These projects were:

Institutional Buildings- New: BEST Building at University of Kansas, Chris Albright, Kansas City Chapter

Residential-New: Dageforde Residence, Darren Dageforde, Nebraska Chapter

Public Assembly Buildings – New: National Toyota Elephant Passage at the Denver Zoo, Robert Strochein, Rocky Mountain Chapter

Commercial Buildings-Institutional-Existing: National Snow and Ice Data Center, Richard Osbaugh, Rocky Mountain Chapter

Of these projects the Dageforde Residence project was selected for a 1st place award at society level. Congratulations to Darren Dageforde!



ASHRAE SOCIETY NEWS AND PRESS RELEASES (CONT.)

ASHRAE, AHR Expo Return to New York City for 2014 Winter Conference

ATLANTA— New York City's iconic skyline serves as the perfect backdrop for the 2014 ASHRAE Winter Conference. With a special focus on the design, development and operation of tall buildings, the Conference's Technical Program examines themes relevant to NYC, as well as the basics of HVAC systems, refrigeration and many other topics significant to the building industry.

The 2014 Winter Conference takes place Jan. 18-22 at the New York Hilton. To register and for complete Conference information, visit www.ashrae.org/newyork.

The International Air-Conditioning, Heating, Refrigerating Expo®, held in conjunction with the Winter Conference, runs Jan. 21-23. The Expo, held at the Javits Convention Center, takes place Tuesday, Wednesday, Thursday as opposed to the traditional Monday, Tuesday, Wednesday. More information is available at www.ahrexpo.com.

More than 100 New York PDHs, AIA LUs, PDHs and LEED AP credits are available through ASHRAE Learning Institute courses and Technical Program sessions.

The Technical Program features more than 200 sessions addressing building information systems; hydronic system design; improving building performance; indoor environmental air health/IEQ; refrigeration; HVAC&R systems and equipment; and HVAC&R fundamentals and application.

Two particular tracks of note are Tall Buildings, which examines opportunities in the design, development and operation of tall and super-tall buildings, and International Design, addressing innovative design strategies to meet environmental elements, geography and cultures.

Also, choose from 23 Professional Development Seminars and Short Courses to help you stay current on HVAC trends. The ASHRAE Learning Institute offers new updates to Standards 90.1 and 62.1, in addition to 11 new courses that include Standard 55, building enclosure commissioning, electric rates and regulations, health care facilities, building energy audits and ground source heat pumps. All courses are approved for renewal of professional engineer and professional architect licenses, as well as for industry certification programs. For a list of all courses, visit www.ashrae.org/newyorkcourses.

Additionally, ASHRAE offers a special administration of all six certification examinations on Thursday, Jan. 23: Building Energy Assessment Professional (BEAP), Building Energy Modeling Professional (BEMP), Commissioning Process Management Professional (CPMP), High-Performance Building Design Professional (HBDP), Healthcare Facility Design Professional (HFDP) and Operations & Performance Management Professional (OPMP). More information on each certification can be found at www.ashrae.org/certification.

ASHRAE Conference technical tours give you a first-hand look at technology developed by members to further the industry. Tours include the Tishman Speyer Rockefeller Center central refrigeration plant, building management system and ice storage facility; the cogeneration project at One Penn Plaza; and the cooling system of the New York Hilton, to name just a few.

The Conference's Plenary will feature Mark Sanborn, president of Sanborn & Associates, Inc., an idea lab for leadership development. In addition to his experience leading at a local and national level, Sanborn has written or co-authored eight books, and is the author of more than two dozen videos and audio training programs on leadership, change, teamwork and customer service. He has presented over 2,400 speeches and seminars in every state and a dozen countries. The Plenary takes place on Saturday, Jan. 18.

ASHRAE SOCIETY NEWS AND PRESS RELEASES (CONT.)

ASHRAE Publishes 2013 Version of IAQ Standard

ATLANTA – The 2013 version of ASHRAE’s indoor air quality standard contains several revisions to help users better meet its requirements.

Newly published, ANSI/ASHRAE Standard 62.1-2013, *Ventilation for Acceptable Indoor Air Quality*, sets minimum ventilation rates and other requirements for commercial and institutional buildings.

The 2013 standard combines the 2010 standard and 10 published addenda to that edition, providing an easy-to-use consolidated standard. Specific information on the contents of each addendum and approval dates for each addendum are included in Informative Appendix J at the end of the standard.

“The 2013 version of Standard 62.1 continues the trend of increasing clarity while adding flexibility,” Roger Hedrick, Standard 62.1 committee chair, said. “These changes will allow designers and building operators to meet the requirements of the standard and provide adequate ventilation airflow to occupants while reducing excess ventilation and the associated energy consumption.”

The 2013 edition of the standard revises and improves the standard in several ways. A number of changes remove inconsistencies within the standard and improve clarity. Significant changes include:

- Table 6-2, Zone Air Distribution Effectiveness is modified to increase the ventilation effectiveness of underfloor air distribution systems that meet certain conditions.
- Requirements for the quality of water used in humidification systems are modified and clarified.
- Building level pressurization requirements were clarified, including adding a definition of “exfiltration.”
- A performance alternative to the prescriptive exhaust rates is added. This approach differs from the Indoor Air Quality Procedure, the existing performance-based method for setting supply ventilation rates, in that monitoring of the concentrations of contaminants of concern is required and provides the basis for control of exhaust flow rates.
- Some changes to the ventilation rates and space types in Table 6-1 are made. These add refrigerated warehouses and change the ventilation rate for sports related spaces to include a per occupant component which then allows the use of demand controlled ventilation in these spaces.
- The filtration requirement on air entering wetted cooling coils has been modified to change the MERV rating from 6 to 8. This change will reduce potential for particulate deposition on the coils that could lead to biological or other contamination on the coils.
- Toilet exhaust air that is cleaned to Class 1 may be recirculated.

The cost of ANSI/ASHRAE Standard 62.1-2013, *Ventilation for Acceptable Indoor Air Quality*, is \$79 (\$67 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.

ASHRAE SOCIETY NEWS AND PRESS RELEASES (CONT.)

Building Energy Disclosure Session Offered by ASHRAE at AHR Expo

ATLANTA – Disclosure requirements and transparency through programs such as fuel efficiency in automobiles and calorie labeling in restaurants have been shown to shift producer and consumer behavior.

The same principles are also being applied to building energy use, where energy use reporting and open data impact market behavior and drive energy efficiency. The implications of the growing trend in disclosure policies are examined in a free session offered by ASHRAE at the 2014 AHR Expo.

ASHRAE's 2014 Winter Conference takes place Jan. 18-22, 2014, New York City, N.Y. Held in conjunction with the 2014 Winter Conference is the International Air-Conditioning, Heating, Refrigerating Exposition, Jan. 21-23, 2014.

ASHRAE's AHR Expo Session, "Trends in Building Energy Disclosure: Increasing Energy Efficiency without Retrofits," takes place from 3-4 p.m., Tuesday, Jan. 21, in the South Concourse, second level. No badge or ticket required. Attendees will earn 1 NY PDH, 1 AIA Learning Unit and 1 LEED AP credit.

Energy disclosure requirements, now required in seven U.S. cities and numerous European Union countries, require periodic reporting of energy consumption for certain buildings.

"The speakers will tackle the issue of building energy use on the large scale and what major cities are doing about it," Mike Eardley, P.E., seminar chair, said. "A cost effective solution is not major construction and new efficient equipment, but tuning up existing HVAC&R systems and verifying they are operating correctly. Occupant behavior also has a major impact. Attendees will learn the energy penalties associated with these issues. We also will discuss how city level energy disclosure requirements take a necessary first step in communicating energy use information in buildings so that corrective action can be taken."

The seminar presents a new energy benchmarking model to support comparative energy performance evaluation across commercial buildings.

The study analyzes patterns of energy consumption across New York City buildings and models the determinants of building energy efficiency to establish a robust model for normalization across multiple characteristics. Energy efficiency has traditionally been achieved through physical retrofits. An alternative approach is presented that harnesses data from smart meters in an eco-informatic system and provides feedback to building occupants on their energy consumption.

Eardley said use of eco-informatic/eco-feedback systems offer a mechanism to close the feedback loop between occupants and energy consumption. Reductions of 5 to 15 percent have been noted with such systems.

"Most importantly, the use of such systems has been shown to be extremely cost effective in comparison with other energy efficiency initiatives," he said.

Presentations are:

- "Building a Better Benchmark: Lessons from New York City's Local Law 84 Energy Disclosure Data," Constantine Kontokosta, Ph.D., P.E., NYU Center for the Sustainable Built Environment, New York, N.Y.
- "Encouraging Energy Efficient Behavior of Building Occupants through Contextualized Feedback and Social Network Dynamics," Rishee Jain, Ph.D., NYU Center for Urban Science and Progress, Brooklyn, N.Y.

ASHRAE SOCIETY NEWS AND PRESS RELEASES (CONT.)

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 for additional information about the program, sponsorships, continuing education credits, speakers, and registration.

EMPLOYMENT OPPORTUNITIES

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

Job Title	Company	Date Posted
Mechanical Engineer II	Beaudin Ganze Consulting Engineers, Inc.	April 29, 2013
Building Energy Modeler	YRG	August 22, 2013
Application Engineer	Setpoint Systems Corporation	August 30, 2013
Mechanical HVAC/Plumbing Designer	JCAA Consulting Engineers, LLC	September 16, 2013
Junior Mechanical Engineer	MKK Consulting Engineers	October 09, 2013

ASHRAE Jobs Website Tool:

We thought you and your fellow members would like to know about this valuable tool for ASHRAE Members and HVAC&R hiring authorities. We have prepared a page detailing the story of [ASHRAEjobs.com and its success here](#).

The Career Center offers several benefits for hiring authorities and job seekers:

- ASHRAE Jobs is user friendly. Its products and services equal the offerings from traditional big box boards such as Monster.com, yet its information and postings are specific to the ASHRAE Community.
- Due to its focus on HVAC&R engineering, Job seekers have a more effective search experience. Employers also have immediate access to a pre-filtered pool of talent for skills and experience.
- A unique feature is ASHRAE members are highlighted in search results. The online job application and resume forms require applicants to identify themselves by membership status. Employers can sort applications and resumes by membership status.

I would invite your Chapter to participate in this program by creating a link on your website to the ASHRAE Jobs Career Center. You will find attached a copy of the logo to use on your homepage. We would also appreciate your help to spread the news about ASHRAE Jobs' success through an announcement through your eNewsletter, blogs, etc.

If you have questions, I or John von Harz (Services Manager at jvonarz@ashraejobs.com) will be please to answer them.



Would you like to show your ASHRAE Rocky Mountain Chapter pride? How about a polo with the chapter logo?



You can order polos through Michelle Swanson by emailing her at mswanson@rmhgroup.com. Polos available include a light knit weight polo in mens and womens styles for \$27, you choose the color. An enduring favorite, our comfortable classic polo is anything but ordinary. With superior wrinkle and shrink resistance, a silky soft hand and an incredible range of styles, sizes and colors, it's a first-rate choice for uniforming just about any group. 5-ounce, 65/35 poly/cotton pique, Flat knit collar and cuffs, Metal buttons with dyed-to-match plastic rims, Double-needle armhole seams and hem, Side vents, Adult Sizes: XS-6XL



Banana	Bark	Black	Bright Lavender	Burgundy
Clover Green	Coffee Bean	Cool Grey	Court Green	Dark Green
Deep Berry	Eggplant	Gold	Hibiscus	Kelly Green
Light Blue	Light Pink	Light Stone	Lime	Maroon
Mau Blue	Mediterranean Blue	Mint Green	Navy	Orange
Purple	Red	Royal	Steel Grey	Stone
Strong Blue	Teal Green	Texas Orange	Tropical Pink	Ultramarine Blue
White				

Or a Nike dry fit performance polo for \$57, you choose the color. Nike Golf is known for classic polos engineered to take comfort to the next level. The Dri-FIT fabric technology delivers superior moisture management, while the stitch-trimmed shoulder panels and gussets make a distinctive difference. Flat knit collar, three-button placket and open hem sleeves. Pearlized buttons are selected to complement the shirt color. The contrast Swoosh design trademark is embroidered on the left sleeve. Made of 4.7-ounce, 100% polyester Dri-FIT fabric. Adult Sizes: XS-4XL



Black	French Blue	Midnight Navy	Skyline Blue	Varsity Red
Vivid Green	White			