



Notes from thin air....

March 2007

Volume 9 Issue 5

PIKES PEAK CHAPTER ASHRAE NEWSLETTER

<http://www.pikespeakashrae.net/>

PRESIDENT'S MESSAGE

By Gary Leffingwell

It almost seems like the long cold, and snowy, days of winter may be nearing an end. Spring weather over the past week, made me change from a winter parka to a light jacket for the afternoon walks. Just like changing coats with the change in seasons, filtration standards change with time. This month our lunch speaker will be Larry Brown with Air Filter Sales and Service. Larry will be discussing filters and Standards 52.1 and 52.2. If you are like me, the MERV rating system is a little like the SI system. You can convert from the system you are familiar with using, but haven't quite made the switch to using the new system full time. This will be a good opportunity for all of us to learn.

Last month Dave Kahn presented a very useful presentation on Standard 62-2004. I would like to thank Dave, again, for making the trip from Denver and providing a very informative presentation. Dave provided a copy of his presentation which should be on the Chapter website. If you did not get a chance, or wish to review his presentation, you can log onto the website and download his presentation.

As many of you know, the Chapter funds a scholarship that is provided to a full time student enrolled in an HVAC related degree program. The scholarship application is available on the Chapter website and the deadline for submission is near. If you know of any qualified student that would be interested in a scholarship, a college student rarely turns down free money, have them fill out an application and return to the Board of Governors.

The Chapter annual spring golf tournament has been scheduled and a signup form can be found on the Chapter website. The tournament takes place at Walking Stick golf course on May 18. I don't play golf, but there is a shotgun start and I hope Dick Cheney isn't among the players. Also, this spring is the Chapter's annual Technical Seminar. The Chapter has arranged a Distinguished Lecturer who was only available in April. We rescheduled the Technical Seminar to April 27, so mark your calendars. Also, this spring the Chapter will be sponsoring a Technical Award competition. You may have seen the Technical Awards in the Journal every year and wondered how one of your projects can get into the competition. It starts at the Chapter level and progresses up to Regional and then National. Look for details coming to the Chapter website. Submissions will be due in May, so get your technically savvy and unique projects ready. I am hoping this will become an annual event, which will highlight the talented engineers in our Chapter.

Thanks again to all of the volunteers that make this Chapter run smoothly. I look forward to seeing all of you at this month's meeting.

LUNCH MEETINGS

Next Meeting is:
Thursday – March 15, 2007

Giuseppe's Old Depot Restaurant
10 S. Sierra Madre Downtown
11:30 a.m. – 1:00 p.m.

Cost: \$18 advance/on-line, \$20 at door

<http://www.pikespeakashrae.net/store/index2.htm>

Program: Air Filtration

Guest Speaker: Larry Brown

Please RSVP to: Neil Case - Programs@pikespeakashrae.net

Speaker Bio: Larry started with Air Filter Sales & Service-Denver, Inc. in May of 2000 and worked through June 2002. He returned in July 2006. In approximately three years in the Air Filter industry, Larry has worked with some of the top HVAC contractors in Colorado including Tolin Mechanical, Long Mechanical, and Cobb Mechanical. Some of the industrial accounts he has managed include Micro Metals, Inc. and CH2M Hill.

ASHRAE NEWS

ASHRAE Members Get Energized in Dallas

ATLANTA – The adage that everything is bigger in Texas proved true for the 2007 ASHRAE Winter Meeting held last week in Dallas.

ASHRAE can boast of a large turnout for overall meeting attendance, record attendance at social events, and high attendance at the International Air Conditioning, Heating, Refrigerating (AHR) Exposition cosponsored by ASHRAE and the Air-Conditioning and Refrigeration Institute (ARI).

“Obviously our members took the meeting theme of ‘get energized in Dallas’ to heart,” Terry Townsend, P.E., ASHRAE president, said. “Our meetings are an integral part of our Society, providing attendees with a first-hand look at the latest technology and allowing them to advance their education, network with fellow members from all over the world and influence technology.”

The ASHRAE meeting had a total attendance of 2,634, an increase of nearly 200 over the 2006 Winter Meeting in Chicago. Registration for social events, also up over previous years, was more than 800 for the Welcome Party; more than 600 for the president’s luncheon; and 557 for the Members’ Night Out.

Two big events were motivational speaker Diana Nyad, who received a standing ovation for her inspiring story about setting the world record for completing the

longest swim in history – 102.5 miles from the coast of Bimini to the Florida shore, and Dennis Dimick, executive editor at National Geographic Magazine, who discussed three 2004 National Geographic magazine articles, “Signs from Earth” that document emergent effects of climate change observed worldwide.

Top-selling publications at the meeting were the new ASHRAE GreenGuide: The Design, Construction and Operation of Sustainable Buildings; HVAC Simplified, the Advanced Energy Design Guide for Small Retail Buildings and the ASHRAE Handbook CD+.

The ASHRAE Learning Institute courses also were well-attended by nearly 1,000 people. The top-drawing courses dealt with green buildings, Standard 90.1, health care facilities design and commissioning.

The AHR Expo, sponsored by ASHRAE and ARI also proved to be “Texas-sized” with 1,789 total exhibiting companies and 354,057 square feet of net exhibit space. Total Expo attendance topped 47,000, including 28,130 visitors and 19,065 registered exhibitor personnel.

Comparatively, the first co-sponsored show in the Southwest held in Dallas in 1976 drew 284 exhibiting companies and 90,197 square feet of net exhibit space.

ASHRAE will hold its 2007 Annual Meeting in Long Beach, June 23-27, followed by its 2008 Winter Meeting, Jan. 19-23 in New York, accompanied by the AHR Expo, Jan. 22-24.



20 Projects Funded Clear Ice Maker Developed Through ASHRAE Grant

ATLANTA – Improved refrigeration technology and beautification come together in a teaching project being funded by ASHRAE.

Through a grant from ASHRAE, students at Pennsylvania College of Technology will design and build a large-scale, clear ice maker for their refrigeration lab. The device also will be used by students in the School of Hospitality for decorative ice carvings.

Twenty grants, totaling some \$118,000, have been awarded by ASHRAE to colleges and universities worldwide to promote the study and teaching of HVAC&R, encouraging undergraduate students to pursue related careers. The grants are used to design and construct projects.

Currently, students in the college's hospitality school use small clear ice blocks that include an unattractive seam where they are connected. The HVAC construction and design technologies students will build a device that produces a large volume, monolithic clear ice structure suitable for carving, which is more attractive than the seamed ice.

To do so, they will use mechanical refrigeration with an intermediate cooling fluid routed through a custom enclosure. The design also includes a reverse osmosis unit for water purification and a custom water distribution system to introduce the treated water into the enclosure. Heating strips will be incorporated to facilitate removal of the clear ice, while PLC controls are used to automate the water flow and freezing rates.

"The device will improve upon the state-of-the-art refrigeration systems used in developing optically clear ice," Thomas Ask, faculty advisor, said. "The final product also will be beneficially used and appreciated by those in our school of hospitality."

Other ASHRAE grant recipients are:

- Alfred (New York) State College, Multi-Zone Natural Gas Fired Radiant Heating System
- American University of Beirut, Experimental Study of a Combined Solar Desalination and Air-Conditioning Unit
- De La Salle University, Manila, Design, Fabrication and Testing of Cold Thermal Storage System with Provisions for Occupancy Sensor
- De La Salle University, Manila, Development of an Energy Efficient Indoor Air Treatment Intelligent System
- East Carolina University, Design and Construction of a Laboratory Unit for Testing the Characteristics of Axial Flow Fans
- Grove (Pennsylvania) City College, Refrigeration Laboratory Experiment and Instruction Aid
- Jimei University, Fujian, China, Design and Construction of an Experimental Facility for Variable Air Volume Systems
- Lamar University, Beaumont, Texas, Solar Water Heating System Demonstrator
- Louisiana Tech University, Design and Construction of Thermal Components Test Stands
- Purdue University, Integration of Solar Heating with HVAC System
- Rochester Institute of Technology, Laminar/Turbulent Pipe Flow Lab
- The Catholic University of America, Washington, D.C., Two-Phase Thermal Loop for Undergraduate Thermal Sciences Laboratory
- Trinity University, San Antonio, Texas, Design and Construction of a Secondary Loop System to Measure Heat Transfer and Fluid Flow of Microencapsulated Phase Change Material Slurry in a Heat Exchanger
- Universidad Pontificia Bolivariana, Columbia, South America, Design and Construction of an Energy Storage Module for the HVAC Lab
- University of Cincinnati, Design, Build, Test and Modeling of Novel Radiant Wall Panels for Office/Solar Home Heating and Cooling Using Thermoelectrics Powered by Solar PV Array
- University of Coimbra, Portugal, Building of a Small-Scale Plant for Demonstration of Solar Adsorption Refrigeration Cycle
- University of Kansas, Fan and System Effects Experimental Apparatus
- University of Oregon, Thermal Circuiting
- University of Windsor (Ontario), Air Diffusion in a Model Room

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

ENGINEERS
ARCHITECTS
SURVEYORS
SCIENTISTS



Farnsworth
GROUP

Farnsworth Group, Inc. is a full-service engineering and architectural firm that offers our valued clients over 275 employees located in a nationwide network of offices. We are currently experiencing tremendous growth and are looking for quality and dedicated employees to join our team. Farnsworth Group is an employee-owned company with a rich 100-year history that offers an impressive benefits and compensation program in addition to excellent career development opportunities. We have the following position available:

Mechanical Engineering Design Position Colorado Springs, CO

We have an immediate opening in the Colorado Springs, CO office for a mechanical system designer. Position entails mechanical system design for commercial, institutional, governmental and educational building projects. Duties include HVAC and plumbing system design, heating/cooling load and system calculations, drawing and specification production.

Specific Requirements include:

- 10 years of progressive experience as mechanical system designer and/or 5 years of progressive experience in mechanical system design with EIT/PE.
- Strong verbal and written skills
- Strong background with Microsoft® Office and AutoCAD
- Ability to travel

Desired Qualifications:

- BS in Architectural or Mechanical Engineering
- Registered EIT
- Educational knowledge of LEED®
- Previous LEED® and/or sustainable design project experience

We offer a competitive salary and benefits program that includes:

- Medical/Dental Plans
- Prescription Drug Program
- Vision Plan
- 401(k) with Company Match
- Tuition Reimbursement
- Flexible Spending Account
- Time-off Benefits

For immediate consideration please:

Click Apply Online below, send an email to JShriber@f-w.com or fax your resume to 309-689-9820. www.f-w.com/careers/careers.asp?ID=10141

Farnsworth Group, Inc. is proud to be an EEO/AA employer M/F/D/V.

STORY OF THE MONTH

[Green Denver EPA headquarters sets tone for future agency buildings](#)

At the recent grand opening of EPA's Region 8 headquarters building, the facility's green roof, with 40,000 different plants and a stunning view of Denver's skyline, took center stage. Marshall Burton, a vice president of Opus Northwest, the developer, said the company has applied for a Gold rating for the building under the U.S. Green Building Council's Leadership in Energy and Environmental Design, or LEED, standards.

Full Story: <http://www.bdcnetwork.com/index.asp?layout=articleXml&xmlId=580977607&nid=2073>

START GEARING UP FOR THE SPRING GOLF TOURNAMENT!

REGISTRATION HAS BEGUN ON THE WEBSITE.

FRIDAY MAY 18, 2006 @ WALKING STICK GOLF COURSE IN PUEBLO, CO

MORE TO COME IN THE UPCOMING MONTHS!!!!!!

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