



**Notes from thin air....**

November 2006

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## **PIKES PEAK CHAPTER ASHRAE NEWSLETTER**

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

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# **PRESIDENT'S MESSAGE**

By Gary Leffingwell

This month's summer and winter like conditions remind me of one of the joys of living in Colorado. The weather is always changing this time of year and can be warm and sunny or cold and snowing. This makes for a great place to live, especially for someone who grew up in Alaska with minus 20 winters and little sunshine.

This month's lunch speaker will be Terry Proffer with Major Geothermal. Terry will be giving a presentation about thermal ice storage systems using ground source heat pumps. Terry has many years of experience designing and installing ground source heat pumps and this presentation should be very useful and informative.

This month we will also be voting on the Chapter bylaw revisions. This is not as exciting as ground source heat pumps, but is necessary. Our Chapter bylaws were revised a couple of years ago, before the TEGA committee was changed to the CTTC committee. Our current bylaws still refer to the TEGA committee and need to be changed to reflect the CTTC committee. The revised bylaws will be posted on the Chapter's website next week. Please take a look at the proposed change in section 8.3.1.6 and be prepared to vote on the proposed changes.

This month also brings Green Build to the Colorado area on November 15 and 16. The Chapter has received several passes for distribution to the members. If any members have not been given a pass by a manufacturer yet and wish to attend, please email me and I will provide a pass to the event.

The Chapter has also been provided passes for the AHR Expo this January in Dallas. If any members wish to attend this event and would like a free pass, travel and accommodations are on your dime, please email me and I will provide a pass to the event.

Next month will be the Chapter Christmas party that will again be held at the Colorado College Women's Center. This has been a popular event every year and is a lot of fun. The party is currently set for Thursday December 7 at about 6pm. Look for more details on the website as the event approaches. Also, remember that we will not have a December lunch meeting. So get your monthly ASHRAE fix and attend the Christmas party.

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 and the Chapter Christmas party.

# STUDENT ACTIVITIES

- The deadline to apply for our 2nd annual student scholarship is March 31, 2007. As outlined in the scholarship criteria "This scholarship in the amount of \$500 to \$1,500 is available to students entering or enrolled in undergraduate programs in engineering or engineering technology in which the student is pursuing a course of study that traditionally has been a preparatory curriculum for a career in HVAC&R." The scholarship criteria and application can be downloaded from the Student Activities section of our Web-site.
- National Engineering Week - February 18 - 24, 2007

ASHRAE Pikes Peak Chapter members,

Our Chapter will be providing speakers for National Engineering Week. We will have the opportunity to speak about our careers to students in the Project Lead The Way Gateway and to Technology pre-engineering classes during Engineers Week. The engineering areas covered by the pre-engineering classes are electrical, mechanical, industrial, aerospace, computer and civil engineering. This would be a great opportunity for us to encourage middle and high school students to take the math and science classes that are necessary for a student to successfully major in engineering in college.

We would like to provide a total of 12 speakers between February 18th and 24th. The plan is for three engineers to speak either during the morning session or the afternoon session. Each person can speak for 10 - 15 minutes per session. There will be approximately 60 students present during each period.

Last year our Chapter members discussed their careers with the teachers and students at Irving Middle School. They were very excited about having engineers visit and present at their school and see their Pre-engineering Program.

If you would like to volunteer to speak to these students, please send me:

- your name;
- telephone number;
- engineering major; and
- a brief one-sentence description of your job.

- The Chapter's first student scholarship recipient Brandon Saip is currently enrolled as a freshman at UCCS. Brandon has a friend at UCCS, Bryan Russi, who is a junior and is interested in a part time internship with a company similar to what Brandon is currently doing with JP Engineering and Jean Phillips. If your company is interested in providing a part time internship please email [russibryan@msn.com](mailto:russibryan@msn.com), or call on cell 719-271-8760.

Thank you for your consideration!

Bob Cleaver  
Student Activities  
[students@pikespeakashrae.net](mailto:students@pikespeakashrae.net)

# LUNCH MEETINGS

Next Meeting is:  
Thursday – November 16, 2006  
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:** Thermal Ice Storage Systems with Geothermal Systems

**Guest Speaker:** Terry Proffer

**Please RSVP to:** Neil Case -

## SPEAKER BIOGRAPHY

Our original guest speaker was supposed to be Mr. Ed Lohernz with Geoxergy Geothermal Solutions from Winnipeg Canada. Due to some confusion on the scheduling date, Mr. Lohernz will not be able to provide his presentation on “Thermal Ice Storage Systems with Geothermal Systems”. I know you all were interested to here this great presentation and your in luck. Mr. Terry Proffer with Major Geothermal from Denver happens to have seen Ed's presentation several times and has graciously offered to give Mr. Lohernz's presentation with permission from Mr. Lohernz.

Mr. Ed Lohernz has worked in the GeoExchange™ industry since 1982 as an installing contractor, an equipment supplier and a manufacturer. He is the current president of the Earth Energy Society of Canada and was the vice-chair of the CSA-448 Standards committee. He has a degree in Environmental Studies at the University of Manitoba, is a Certified GeoExchange™ Designer and Certified Trainer for the International Geothermal Heat Pump Association (IGSHPA). He is also a trainer for residential installers and designers as well as for commercial designers. In 1995 he was one of the founders of Ice Kube Systems Ltd., a Winnipeg based heat pump manufacturer. Ice Kube Systems specializes in geothermal systems designed for low temperature operation used in integrated geothermal Refrigeration / Heating, Ventilating and Air Conditioning (R/HVAC) systems. He is the founder

of Geoxergy Geothermal Solutions, a consulting firm specializing in the design of residential and commercial geothermal systems, and consults with mechanical engineering firms, architects, building owners and developers across North America.

Mr. Terry Proffer has been involved in the GSHP industry since 1993. Terry is also an IGSHPA Certified Trainer and IGSHPA Accredited Installer. He spent the previous 15 years in the oil industry as a geologist prior to a career change as a “Geo-Junkie”. Terry began installing small residential systems and progressed to larger commercial applications, apprenticing under experienced GSHP mechanical contractors and loop installers. Terry's experience progressed to design work, including large custom homes, schools and office buildings, with successful applications extending beyond space conditioning to snowmelt, large dedicated domestic hot water load heating and industrial process water conditioning throughout the United States. Terry is currently developing two training courses for IGSHPA, Source Side Commissioning of GSHP Systems, and Commercial GSHP Installation Procedures. In July of 2001, Terry joined Major Geothermal. In addition to GSHP product distribution, Major Geothermal provides evaluation, loop design and thermal conductivity test specifications, consulting, on-site installation oversight, commissioning and training services for contractors and mechanical engineers.

# ASHRAE NEWS

## ASHRAE Looks to Develop Water Conservation Standard

ASHRAE – Requirements regarding the amount of water used to operate HVAC, plumbing and irrigation systems would be established under a proposed standard from the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).

“Water is the most important renewable resource on this planet,” Terry Townsend, P.E., ASHRAE president, said. “To protect this source of life, we must reduce the demand and consumption that the built environment is placing on available water sources. It is our intention to develop a standard that can be used globally to conserve this valuable resource.”

The proposed standard, Conservation of Water Use in Building, Site and Mechanical Systems, would provide baseline requirements for the design of buildings, landscapes, and mechanical systems that minimize the volume of water required to operate HVAC systems, plumbing systems, and irrigation systems.

The standard would address water use efficiency through water conservation measures implemented during design and construction of residential, commercial, institutional and industrial projects. It would not apply to storm water management.

The proposed title, purpose and scope of the standard are open for public comment until Nov. 20. Also, members are being sought to serve on a committee to write the standard.

To join the committee or comment on the draft title, purpose and scope, visit the standards actions for Oct. 6 at [www.ashrae.org/publicreviews](http://www.ashrae.org/publicreviews).



## Learn to Meet, Beat 90.1 Requirements with new eLearning Course

ATLANTA – Guidance to help users design buildings that are in compliance with ASHRAE’s energy efficient standard is available through a new online learning course.

The Fundamentals of Standard 90.1 is the newest offering in ASHRAE’s eLearning system, which provides on-demand, interactive online courses that include hardbound and online course reference books, online self-assessment and continuing education credits.

ANSI/ASHRAE/IESNA 90.1-2004, Energy Standard for Buildings Except Low-Rise Residential Buildings, has become the basis for building codes, and the standard for building design and construction throughout the United States.

“The new eLearning course is designed to help you go through the standard and learn about each of the requirements,” said Carol Marriott, P.Eng., a former member of the Standard 90.1 committee who helped develop the new module. “In school, you had assignments to enforce retention of the concepts you learned. The eLearning course is designed exactly the same way, in that it reinforces learning by providing questions to practice the concepts learned, and applying the 90.1 requirements to sample questions. Most users will hardly even realize they are learning as it is designed for users to have fun while doing the work.”

The course explains:

- The detailed requirements of the standard so that they can be applied in designing buildings that are in compliance with 90.1;
- How to use available resource material, such as the standard and the User’s Manual, to design and construct building in compliance with the standard;
- How to complete compliance documentation in a satisfactory manner the first time; and
- How to translate the key principles of the standard to local and state adaptations.

Marriott said the course is one of three key elements in learning about the requirements, along with the actual standard and the Standard 90.1 User’s Manual.

The course is the second in ASHRAE’s eLearning system. The first, Fundamentals of HVAC Systems, provides a thorough and comprehensive introduction to how HVAC systems function in controlling temperature, air quality, and air circulation in a conditioned space.

For more information about ASHRAE eLearning Systems, visit [www.ashrae-elearning.org](http://www.ashrae-elearning.org).

# STORY OF THE MONTH

## New Jetliner to Feature Improved Cabin Air System

CHICAGO—Boeing says passengers on its 787 Dreamliner jet will be more comfortable because of a new ventilation system. The jet is scheduled to begin service in 2008, primarily on long-range flights. Boeing says the new jet's cabin air will contain more oxygen and humidity, and fewer pollutants. Among changes, cabin air will be vented through dedicated inlets on each side of the plane's belly. Air will not pass through the engine, as does cabin air on typical commercial jets.

Full Story: [http://www.usatoday.com/money/biztravel/2006-10-30-boeing-air-usat\\_x.htm](http://www.usatoday.com/money/biztravel/2006-10-30-boeing-air-usat_x.htm)

# CHAPTER HISTORY

We enter our twenty first year as the 147th chartered member of the **American Society of Heating, Refrigerating and Air - Conditioning Engineers**. I will have available at each lunch meeting a binder for the Chapter History, and for the Chapter Regional Conference held in Colorado Springs, August 12-14, 1993. The binders include correspondence, reports, documents, and photos from these two events. Please take a look and pass them around.

Check out the Chapter History binder and see who was instrumental in the formation of our organization. The steering committee in charge of forming this Chapter was Sol Chavez, Matt Ernst, Paul Pfau, Duane Merrit, Bill Harmon, Mark Abrahamson, Stacey Hieb, Mike Scofield, and Glenn Warner. Three of the nine are present members.

Check out the CRC held in Colorado Springs in 1993. Sol Chavez and Royce Henderson were the Co-chairs and introduced some new things to the annual Region IV CRC. The Friday night banquet with the murder mystery theater was a first, and has set the bar for the annual banquet entertainment since. Review of this binder will give you some idea of the planning and effort it will take to pull off the 2007 CRC. Please get involved.

Chapter Historian  
Roy Neese

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