



ASHRAE LOUISVILLE CHAPTER NEWS

American Society of Heating, Refrigeration and Air Conditioning Engineers
Serving the commonwealth for 45 years.

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Date: November 23, 2005

ASHRAE 2005 CHRISTMAS GATHERING

DATE: Saturday, December 3, 2005
TIME: 6:30 p.m.

PLACE: FELICE VINEYARDS & WINERY
829 EAST MARKET STREET
LOUISVILLE, KY 40206

6:30 – 7:00 Hors d'oeuvres
7:00-7:30 – Wine Tasting
7:30-8:30 – Dinner by Melillo's
8:30– 10:30 – Entertainment (Live Music)
Cost: \$20.00/person

Menu:
Antipasto platter
Penne Pasta
Meatballs or Italian Sausage
Salad
Bread

Reservations Required by: 11/29/05
Email responses to: donahue@bcclt.com

Felice Vineyard is owned by Jeff & Anna Tatman. Several tons of grapes are shipped from California every fall to the winery where they are destemmed, crushed, fermented and barreled over several weeks. The wine is then aged in oak barrels for many months, sometimes years, to produce fine wines. Felice Cristofoli was making wine in Italy at the turn of the last century. His grandson came to America and brought with him the wine-making techniques he learned in Italy. Today the family handcrafts their wine in the time-honored traditions passed down through the generations.

VISIT THE LOUISVILLE CHAPTER ON THE WEB!

<http://www.ashraeregion7.org/louisville/index.html>

NOVEMBER MEETING REVIEW

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NEWSLETTER EDITOR

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We had a special guest speaker, Larry Fisher, who discussed the past, present and future of building automation systems. The presentation was informative yet entertaining with serious discussion of energy polices from the 1920's to present day. Other topics included energy conservation measures from the 1920's, 1940's, 1970's to current policies under development. The influence of ASHRAE was also introduced. The presentation concluded with an examination of web-based temperature control, integration, enterprise systems of future and a brief conversation on control contractor's approach to LEED and Green Building Design.

UPCOMING EVENTS/PROGRAMS:

Below is a list of upcoming meetings and events for 2005 and 2006. Please mark your calendars:

January 9 – Government and Economic Incentives for Green Building Design (Dinner at U of L Alumni Club)
February 4 – Engineers' Day
February 6 – Hot Gas Bypass Versus Hot Gas Reheat - The Difference; When to Apply Each (Lunch at U of L Alumni Club)
March 6 – Student Presentations – Joint Meeting with ASME (Dinner at U of L Vogt Building)
April 3 – Humidity Control (Lunch at U of L Alumni Club)
April 19 – CTTC Broadcast
May 15 – Golf Outing

MESSAGE FROM THE CHAPTER PRESIDENT

By Ray Beaufait

Meeting attendance continues thrive. Again, I would like to thank each of you for attending and invite you to come to the Christmas party. It should be a great time with lots of fellowship.

ENERGY SAVING TIPS FOR THE WINTER

By Edward Dusch, PE

1. Turn equipment off or down if not needed. Smart thermostats are inexpensive.
2. Use demand-based fresh air control. CO2 control can payback fast.
3. Install reset control on supply air for VAV and other terminal reheat systems.
4. Install reset control on cold deck air for dual duct systems.
5. Hot water heating systems—cycle off heating pump, not boiler. Condensation can lead to pitting and tube failure if cycled too frequently.
6. Operate burners at reduced firing rate when possible. This is equivalent to a small burner & oversized heat exchanger. It also reduces heat up the stack with fewer off cycles and boiler 'cool downs'.
7. Install outdoor reset control on hot water heating systems.
8. Install turbulators in two and three pass boilers. Cost is about \$20/each tube and usually will lower flue gas temperatures by 80-100F.
9. Perform flue gas analysis on boiler-- adjust to 15-20% excess air.
10. Select steam boiler water treatment to maximize cycles of concentration – less blowdown and Btu's down the drain.
11. Repair steam traps and correct condensate system leaks.
12. Install heat recovery coil (economizer) in boiler stack
13. Install oxygen trim system on burner controls on boilers over 10 MMBTUH
14. More attic insulation and/or replacement windows may be worth it now.
15. Install a bypass around the gas meter.



May your holidays be filled with laughter, happiness and warmth. Have a safe and joyous holiday season.

Hope Gibson

ASHRAE LAUNCHES ENGINEERING FOR SUSTAINABILITY EFFORT

ATLANTA – The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) has launched a new campaign emphasizing its role as “the engineering engine that drives sustainability.”

As part of ASHRAE’s stronger focus on its involvement in green buildings, the Society has introduced a new logo, theme, Engineering for Sustainability, and Website, www.engineeringforsustainability.org. These will be used to identify ASHRAE products and services related to sustainability.

“ASHRAE has long provided ‘engineering for sustainability’ by applying its diverse technology assets to the sustainability movement in energy efficiency, indoor environment and industrial processes,” Ron Jarnagin, chair of a committee developing a roadmap for sustainability for the Society, said. “With growing focus in the industry on the green movement, we need to emphasize that ASHRAE is the engineering engine that drives sustainability.”

Jarnagin noted that the Society’s recent efforts include publishing and working on the Advanced Energy Design Guide series, Standard 90.1, which contains a section guiding designers on how to meet requirements for building rating programs, and the ASHRAE GreenGuide, all part of an ASHRAE green “toolkit.” Sustainability also is addressed through other standards and special publications, ASHRAE Journal articles, ASHRAE Learning Institute courses and in the ASHRAE Handbook.

Opportunities for involvement in shaping ASHRAE’s sustainability future include technical committees and local chapters.

USER’S MANUAL PROVIDES BETTER UNDERSTANDING OF ASHRAE 62.1

ATLANTA – A new user’s manual provides users with a better understanding of the design, installation and operation requirements in ASHRAE’s ventilation standard.

The *Standard 62.1 User’s Manual* explains the requirements of ANSI/ASHRAE Standard 62.1-2004, *Ventilation for Acceptable Indoor Air Quality*, and contains numerous examples of their application in an easy-to-follow question and answer format.

“Because the standard is written in code-intended language, such material could not be included in the standard itself, so the manual helps users better understand the intent and apply it to their work,” Dennis Stanke, chair of the Standard 62.1 committee, said. “It helps users understand what Standard 62.1 requires and how those requirements can be met. It’s a document that designers have needed for many years and will find useful for many years to come.”

The manual includes a CD containing a spreadsheet to assist in the standard’s new ventilation rate procedure calculations.

The manual was developed through ASHRAE research and partially funded by the National Institute of Standards and Technology, the Air-Conditioning and Refrigeration Institute and the U.S. Green Building Council. The cost of the Standard 62.1 User’s Manual is \$55 (\$44, ASHRAE members).

To order, contact ASHRAE Customer Service at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), fax 404-321-5478, by mail at 1791 Tullie Circle NE, Atlanta, GA 30329, or visit the ASHRAE.org [Bookstore](#).

ASHRAE AND ARI TO MUTUALLY COOPERATE IN STANDARDS DEVELOPMENT

ATLANTA - The Air-Conditioning and Refrigeration Institute (ARI) and the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) have approved a new cooperative agreement for standards development that reinforces their long-running alliance.

Preserved and formalized in the agreement is one of the tenets of the ASHRAE-ARI relationship - that ASHRAE develops method of testing standards that describe how to perform product testing, while ARI develops rating standards that specify rating conditions and details on how to rate performance of product using those tests.

The agreement makes clear that where there is a published ARI rating standard, the ARI rating standard is the appropriate place for inclusion of the product performance rating conditions. Likewise, where there is a published ASHRAE method of testing standard, the ASHRAE standard is the appropriate place for inclusion of the method of testing details.

Further, to address both future and all existing standards, the agreement stipulates the mechanism for moving method of testing standards from ARI to ASHRAE and for moving rating conditions from ASHRAE to ARI standards.

"This agreement clarifies, for ASHRAE and ARI members, the respective roles of each organization in standards development," said Mark Menzer, ARI's vice president of engineering and research. "Each organization will recognize the other's area of competence, communicate to establish whether the other wishes to participate, and cooperate so as to avoid conflict or overlap between standards."

"This agreement is part of ASHRAE's continuing efforts to improve our standards development process and our relationship with ARI," said Lee Burgett, P.E., ASHRAE president. "The agreement allows ARI and ASHRAE to determine responsibilities for and streamline development of standards to best draw upon the expertise of our members."

Currently, nearly 50 ARI rating standards reference and require the use of corresponding ASHRAE method of testing standards with a number of others currently under development at ASHRAE and ARI.

LEED CREDITS NOW AVAILABLE FOR ENERGY DESIGN GUIDE USE

ATLANTA - Designers can now earn credit under Leadership in Energy and Environmental Design (LEED) certification for use of the Advanced Energy Design Guide for Small Office Buildings.

The inclusion of the design guide will help designers achieve LEED certification, offered by the U.S. Green Building Council.

"The small office design guide clearly meets the overall goal of LEED in that it accelerates the development and implementation of green building practices," Lee Burgett, P.E., ASHRAE president, said. "The design guide series is intended to provide prescriptive guidance to bring us 30 percent closer to a net zero-energy building, meaning those that use equal or less energy than they produce on an annual basis. Our goal is to provide the technical resources needed to assist the HVAC&R industry in creating the most sustainable buildings possible."

Specifically, the design guide has been added in LEED-NC 2.1 and the upcoming LEED-NC 2.2 as a prescriptive compliance path to achieve LEED-NC Energy and Atmosphere Credit 1, Optimize Energy Performance (EAc1), credit.

LEED-NC EAc1 is intended to reduce environmental impacts associated with excessive energy use by awarding LEED credit to buildings that achieve increasing levels of energy performance above ANSI/ASHRAE/IESNA Standard 90.1-1999.

The guide establishes a previously unavailable prescriptive compliance path and enables small office design teams to earn LEED-NC EAc1 points without incurring the costs associated with whole building energy simulation. Small office buildings that successfully demonstrate compliance with the guide will be awarded 4 LEED EAc1 points.

The guide was developed by a committee representing a diverse group of energy professionals drawn from ASHRAE, the American Institute of Architects (AIA), the New Buildings Institute (NBI), the Illuminating Engineering Society of North America (IESNA) and the Department of Energy (DOE).

The cost of the Advanced Energy Design Guide for Small Office Buildings is \$59 (\$47, ASHRAE member).

To order, contact ASHRAE Customer Service at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), at 1791 Tullie Circle NE, Atlanta, GA 30329, or visit the ASHRAE.org Bookstore at www.ashrae.org.

ASHRAE, founded in 1894, is an international organization of 55,000 persons. Its sole objective is to advance through research, standards writing, publishing and continuing education the arts and sciences of heating, ventilation, air conditioning and refrigeration to serve the evolving needs of the public.