



# ASHRAE LOUISVILLE CHAPTER NEWS

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

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## Performance Contracting – Technical Solutions

Monday, January 8, 2007  
Dinner Meeting

### **ABSTRACT:**

Dr. Roosa's presentation on performance contracting focuses on the benefits of using performance contracting, how the process works, how projects are developed and packaged, and the engineering solutions typically used in performance contracts.

### **SPEAKER:**

Dr. Stephen A. Roosa is an Account Executive with Energy Systems Group in Louisville, KY. He has over 25 years experience in commercial and institutional energy management and performance contracting. He holds a Ph.D. from the University of Louisville, a Master of Business Administration from Webster University and a Professional Bachelor of Architecture degree from University of Kentucky.

### **MEETING LOCATION:**

**The University of Louisville Alumni Club from 5:30 until 8:00 pm.**

The cost for attending is \$25.00, cash or check (made payable to ASHRAE). Students and university faculty may attend for \$5.00. Due to our current arrangements with the University Club, reservations are not cancelable after 5:00 PM Thursday prior to the meeting date. We want to encourage attendance, but emphasize the importance of notifying the treasurer if plans to attend have changed. Your consideration will help avoid meeting fee increases to offset losses associated with extra meal preparation.

It is extremely important to make your reservation no later than Wednesday, January 3rd with Julian Donahue by simply using one of the following two options: 1) Calling (502) 569-3600 x 2422 2) E-mail [jdonahue@lwcky.com](mailto:jdonahue@lwcky.com).

### **UPCOMING EVENTS/PROGRAMS:**

Below is a list of upcoming meetings and events for 2006-2007. Please mark your calendars:

February 5 – Lunch meeting at the U of L Alumni Club  
March 3 – Engineers' Day at University of Louisville  
March 5 – Joint Dinner meeting with ASME and Student - Presentations in the Vogt Building at U of L  
April 2 – Lunch meeting at the U of L Alumni Club  
May 14 – Golf outing, location TBA

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VISIT THE LOUISVILLE CHAPTER ON THE WEB!  
<http://www.ashraeregion7.org/louisville/index.html>

## **MESSAGE FROM THE CHAPTER PRESIDENT**

By Joe Nitzken

Thanks go to all those involved in planning the Christmas Party at Big Springs Country Club. Particularly I want to thank Matt Haragan for his efforts. The food was excellent, the building very nice, and Elvis entertained all on his return tour. Thank you very much.



**Next Meeting:** Our next meeting is an evening meeting in January on Performance Contracting. This topic is key to being successful in today's business environment. When you reduce your clients operating costs, while increasing their profits, you become more competitive in winning projects and equipment sales. None of that is new or surprising to any of us, however Dr. Roosa from Energy Systems Group brings us a formalized approach to the execution of Performance Contracting.

**On-Deck:** As a heads-up, the February meeting focus is Refrigeration and it is being planned by Rick Vowels. The meeting is being moved to an evening time since our speaker will be traveling from out of town. The topic will be "Refrigeration Systems for Ice Rinks". Please look ahead to an interesting evening meeting. Note that Rick's company is currently building the 2008 Olympic bobsled run in Vancouver where over 500,000 feet of refrigeration piping is being installed.





Kentucky Office of Energy Policy

**FOR IMMEDIATE RELEASE**

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**2007 High Performance Sustainable Schools Workshop to Showcase Kentucky Schools  
Sloan Convention Center, Bowling Green, Kentucky  
March 6-7, 2007**

**FRANKFORT, KY:** School superintendents, board members, facilities managers, architects and engineers are invited to attend the fifth annual Kentucky High Performance Sustainable Schools Workshop. The event provides school districts with valuable resources to help implement sustainable design in new construction and renovation projects, delivered by recognized experts in the field.

The workshop will feature a site visit to Alvaton Elementary School in Warren County, a high performance school which opened this school year. Also on the agenda is a presentation from the design team of the county's three renovated middle schools—all of which recently received the Energy Starq label for energy efficiency. This is an award achieved by schools that rank in the top 25 percentile of energy efficient schools in the nation.

Workshop sessions will provide detailed information on sustainability concepts, how these concepts enhance the learning environment and the steps to achieving high performance in new construction, renovation and operations.

School district personnel pay a reduced registration fee of \$50 for one day or \$75 for two days. The business and industry fee is \$125 for one day or \$200 for two days. Registration fee includes continental breakfast and lunch.

This workshop qualifies for EILA (Effective Instructional Leadership Act) credit from the Kentucky Department of Education and AIA continuing education unit credit. We have applied for school board member in-service credit. Certificates of participation will be provided to educators and architects who attend.

## **ASHRAE PUBLISHES USER'S MANUAL FOR STANDARD 62.2**

**ATLANTA** – A new book from ASHRAE will aid users in designing and constructing homes and apartments that comply with its residential ventilation and indoor air quality standard.

The User's Manual is the first for ASHRAE Standard 62.2-2004, *Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings*, which provides the minimum requirements necessary to achieve acceptable indoor air quality for dwellings.

The manual was co-developed by the Indoor Air Quality Association.

"The 62.2 User's Manual will provide HVAC engineers and IAQ consultants with practical information to ensure that ventilation positively affects the indoor environment," Robert G. Baker, IAQA president and ASHRAE Member, said. "IAQA was pleased to be a co-sponsor of this dynamic publication."

The manual explains how to comply with all the requirements of the standard, provides examples illustrating specific methods of complying with sections of the standard, and includes background material explaining why many of the requirements of the standard exist, according to Roger Hedrick, who co-authored the book.

The manual is targeted toward builders and subcontractors, but will also be useful for code officials, researchers, and interested homeowners.

"The manual has been developed as a document that will accompany Standard 62.2 and provide guidance for applying its requirements to the design and construction of residential buildings," David Grimsrud, chair of the Standard 62.2 committee, said. "It serves as a guide to clarifying issues for users."

The cost of the 62.2 User's Manual is \$45 (\$36, 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 at [www.ashrae.org](http://www.ashrae.org).

*ASHRAE, founded in 1894, is an international organization of 55,000 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.*

IAQA, founded in 1998, is an international organization of 5,200 members. IAQA is a non-profit, multi-disciplinary organization, dedicated to promoting the exchange of indoor environmental information, through education and research, for the safety and well being of the general public. For more information, visit [www.iaqa.org](http://www.iaqa.org).

## **IAQ 2007 CONFERENCE TO DISCUSS SUSTAINABLE BUILDINGS**

**ATLANTA** – Healthy and sustainable buildings are the talk of the building industry, but what exactly defines what a healthy building is?

ASHRAE will discuss this and other topics at its IAQ 2007: Healthy and Sustainable Buildings conference in Baltimore Oct. 15-17.

IAQ 2007 addresses what tools and metrics can be used to quantify buildings' health and sustainability and how indoor air quality can be certified as sustainable. Plenary session speakers will compare the functionality of rating systems, how they can be improved and what information other than the ratings can developers, designers and public entities use to distinguish high-performing buildings.

Kevin Hydes, P.Eng., P.E., chair of the Board of Directors of the U.S. Green Building Council, will address the Council's Leadership in Energy and Environmental Design building rating system and case studies. Nils Larsson, executive director of the International Initiative for a Sustainable Built Environment, will cover the same questions for other rating systems, labels and green building/IAQ metric tools.

"Buildings' health and efficiency impact everyone," said Larry Schoen, chair of the committee organizing the conference. "It's important to discuss how our designs as building professionals will affect the occupants' lives and the global community for many years to come. This conference helps attendees learn how we can work together to maximize sustainability."

The conference is open to anyone with a stake in the built environment or with an interest in indoor air quality, including researchers, policy makers, owners, designers, builders, building operators and remediation experts.

To submit an abstract to be a speaker at the conference, visit [www.iaq2007.org](http://www.iaq2007.org). The submission deadline has been extended to Jan. 15, 2007.

### **07' ASHRAE: MEASURES TO ATTAIN MAJOR ENERGY SAVINGS SHARED AT ASHRAE SEMINAR**

**ATLANTA** – Guidance for building design engineers and owners that will result in buildings cutting their energy usage in half by 2010 currently is being developed by leading organizations in the building environment industry.

Achieving that goal will require more than simply substituting or adopting new technologies and systems. It will acquire changes in design practice in which the design team converts energy strategies into building plans, sections, details and construction.

An update on some of the measures that have been demonstrated to yield significant energy reductions will be presented at ASHRAE's 2007 Winter Meeting in a seminar, Achieving 50% and Beyond Approach to Net Zero Energy Use in Buildings Part 1. It takes place from 7:45-9:15 a.m. Monday, Jan. 29, and is followed by Part 2 from 10:45 a.m.-12:15 p.m.

The guidance is being developed by ASHRAE in cooperation with the American Institute of Architects, the Illuminating Engineering Society of North America and the U.S. Green Building Council, through a series of Advanced Energy Design Guides for the commercial building sector.

John Mitchell, P.E., is chairing a scoping committee studying ways to achieve building designs as close as is feasible to net zero energy use, defined as "a building which, on an annual basis, uses no more energy than is provided by the building's on-site renewable energy sources." This study will provide the basis for the development of Advanced Energy Design Guides to go 50 percent and beyond minimum standards for energy use.

"The goal of a 50 percent approach to net zero energy use, on either a site or source basis, is feasible," he said. "There are no apparent technological barriers to achieve the desired energy reductions but aggressive energy conservation strategies and energy generation are needed."

The scoping study recently was completed and identified measures that achieve significant energy savings. Some of the measures identified are:

- Improved daylighting and electrical illumination systems
- Reduction of parasitic power requirements in air and water distribution systems
- Separate treatment of ventilation and internal thermal loads
- Improved delivery of conditioning to where it is needed
- Improved part load performance of HVAC components
- Water loop heat pump systems.

Information related to the Advanced Energy Design Guide series can be found at [www.ashrae.org/aedg](http://www.ashrae.org/aedg).

Speakers in the seminars are:

- *Net Zero Energy Building Ideas – The Path Toward Net Zero Energy Use*, **John W. Mitchell**, Ph.D., P.E., University of Wisconsin, Madison
- *Architectural Perspective as a Bridge to Engineering*, **Jeff Levine**, American Institute of Architects, New York, N.Y.

- *What Has Been Done? Case Study Review*, **David Hewitt**, New Buildings Institute, White Salmon, Wash.
- *Integrated Design Process – Making it Possible*, **Jeff Levine**, American Institute of Architects, New York, N.Y.
- *Daylighting – Advanced Lighting, Daylighting and Controls*, **Stephen Selkowitz**, Lawrence Berkeley National Laboratory, Berkeley, Calif.
- *Distribution Systems – Air*, **Wayne Reedy**, Carrier Corp., Indianapolis, Ind.
- *Distribution Systems – Water*, **Stephen Kavanaugh**, Ph.D., University of Alabama, Tuscaloosa, and **Harvey Sachs**, Ph.D., American Council for an Energy-Efficient Economy, Washington, D.C.
- *HVAC/Ventilation*, **Michael Brandemuehl**, Ph.D., University of Colorado, Boulder, Colo.

Held with the ASHRAE Winter Meeting is the ASHRAE co-sponsored International Air-Conditioning, Heating, Refrigerating Exposition, Jan. 29-31, at McCormick Place. For more information, visit [www.ahrexpo.com](http://www.ahrexpo.com).

For more information about the ASHRAE meeting, visit [www.ashrae.org/dallas](http://www.ashrae.org/dallas).

### **ASHRAE RECEIVES RECOGNITION FOR SUSTAINABILITY EFFORTS**

**ATLANTA** – ASHRAE has been recognized by the Sustainable Buildings Industry Council for the Society's educational efforts related to sustainability.

Last week, ASHRAE received a Best Sustainable Practice Award in the Educational Initiatives category, which recognizes the best products, processes, educational tools and outreach initiatives.

The award centered on the presidential challenge made by Terry Townsend of ASHRAE's promise for a sustainable future. To fulfill that challenge, ASHRAE is using its expertise and tools to provide cost-effective solutions in designing, operating and maintaining energy efficiency and sustainable buildings.

"The sustainability initiative is stimulating conversation inside ASHRAE about what it means to be sustainable and the importance of protecting today's natural resources for future generations," Townsend said. "We are pleased to be recognized by the Sustainable Buildings Industry Council (SBIC) for our efforts."

The Awards program was established in 2001.

"The Best Sustainable Practice category recognizes the excellent innovations and unique contributions SBIC members are making toward building a sustainable future in America," Douglas K. Schroeder, associate director of SBIC, said. "This year's competition was exceptionally competitive, but for the second consecutive year, the SBIC jury recognized the valuable contributions ASHRAE is making to the buildings industry."

Realizing that sustainability cannot be accomplished without measurable goals, ASHRAE has put in place some 35 specific challenges, ranging from a proposed water conservation standard, development of building performance metrics, research and design guidance resulting in net zero energy use buildings and greening of ASHRAE meetings.

To generate excitement and increase member awareness, ASHRAE created a three-part DVD, featuring a video of Townsend fishing with his grandchildren illustrating the importance of sustainability, Townsend's recorded presidential speech, and a short video highlighting why ASHRAE is taking on this challenge.

The DVD is part of a total communications package from ASHRAE to inspire members and the industry about the challenges and opportunities related to sustainability.

Other aspects include a promotional slide chart explaining the benefits of sustainable design measures, a Website, [www.engineeringforsustainability.org](http://www.engineeringforsustainability.org), featuring sustainability guidance from ASHRAE; creation of a page on ASHRAE.org, [www.ashrae.org/building](http://www.ashrae.org/building), focusing on ASHRAE's planned renovation of its Headquarters building as sustainable; and use of ASHRAE publications and other outreach vehicles to spread the word about the Society's work.

The award is the second for ASHRAE from SBIC. Last year, the Advanced Energy Design Guide for Small Office Buildings published by ASHRAE and the ASHRAE Journal supplement, "Building for the Future," were recognized with honorable mention in the educational initiatives category.