



Mississippi Valley Chapter Newsletter

January 2009

<http://www.mississippivalleyashrae.org>

Monthly Newsletter

Important Dates

- **January 15, 2009**
ASHRAE Certification Program
- **January 24-28, 2009**
ASHRAE Winter Conference - Chicago
- **February 19, 2009**
Current Feasibility of Using Bio-Mass and Bio-Gas to Reduce Facility Carbon Footprint
- **March 19, 2009**
Hydronics Seminar – All Day Event
- **March 31, 2009**
Student Scholarship Deadline
- **April 16, 2009**
1353-RP – Stability and Accurance of VAV Box Control and Flow
- **May 7-9, 2009**
Region VI Conference – Des Moines
- **May 21, 2009**
Chapter Meeting - Elections
- **June 5, 2009**
Golf Outing

January Meeting – The Value of ASHRAE Certification

ASHRAE's certification programs are being developed by industry practitioners who understand the knowledge and experience that are expected for superior building design and system operation. The programs will support and will be supported by the ASHRAE Learning Institute, thereby providing a complete learning process. ASHRAE enjoys a worldwide reputation for being the leader in HVAC&R design and our certification programs will serve to reinforce that reputation, which ASHRAE has worked hard to earn and maintain over the past 100 + years.

To Employers: An ASHRAE certification will let employers know the certification earner has mastered a significant body of knowledge in a specific aspect of HVAC&R design, as determined by industry professionals in the field, and has met specified eligibility requirements. This knowledge will serve as the springboard for a certification earner's continued professional development in the HVAC&R and building industry.

To Building Owners: A firm that employs ASHRAE certification earners has demonstrated a corporate commitment to the professional development of its employees and a dedication to providing the best possible resources for building design projects.

To Certification Earners: An ASHRAE certification broadens your knowledge base. It also allows you to stand out from the crowd and may improve your options for being hired, promoted, and/or tapped for working on certain types of design projects.

To Society: More knowledgeable engineers can design better HVAC&R systems for the betterment of society as a whole, for current generations and for generations to come. Earning an ASHRAE certification indicates mastery of a given body of knowledge, as determined by subject matter experts in that field. ASHRAE encourages its members and other individuals who pass through its certification program to use the knowledge gained to improve the world around us.

January 15th Program

Location: The SteepleGate Inn
100 W 76th St
Davenport, IA

Program: The Value of ASHRAE® Certification

Agenda: 4:00-5:00 Program
5:30-5:45 Meeting at SteepleGate
5:45-6:45 Dinner at SteepleGate

Menu: Sicilian Chicken
Fresh Vegetables
Red Potatoes
Salad/Dinner Role
Oreo Cheesecake

Cost: Members: Free
Others: \$15



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Presenter - Maureen Grasso, University of Georgia

Maureen Grasso, dean of the Graduate School at the University of Georgia, holds an academic appointment as professor of textile sciences in the College of Family and Consumer Sciences. She was recognized for excellence in teaching at the University of Texas at Austin and the University of North Carolina at Greensboro. A Fellow of the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, she was recognized by her peers as being in the top 1% based on rigorous review of research and achievements in the industry. A scholar experienced in interdisciplinary research she has worked collaboratively with mechanical engineers, consumer marketing researchers, and adult education researchers.

She served as vice president of the American Society for Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE); provided leadership as a Board of Director for ASHRAE; chaired and provided leadership for the Publishing and Education Council of ASHRAE; served on the executive board and was president of the Conference of Southern Graduate Schools (CSGS); served as associate editor of Clothing and Textile Research Journal; and currently serves as a member of the Government Relations Committee and chairs the Membership Committee for the Council of Graduate Schools.

Invent Iowa – Judges Needed!

As of several days ago, judges were still needed for the Invent Iowa Regional Convention being held on Saturday, February 21, 2009 at the Bettendorf Family Museum. There will be two sessions: Grades K-4 from 9 - 11:30 AM and Grades 5-8th from 12:30 - 3:30 PM. Please note that this is being held during National Engineers Week (Feb 15-21, 2009)

Attached is a link to further information about the Invent Iowa program. The state convention is scheduled for April 25 at Iowa State University.

<http://www.education.uiowa.edu/belinblank/events/inventia/>

If you or any members of your society are interested in volunteering to be a judge on February 21, please contact Denise Tatoian per the contact information below. If you are interested in participating, I would suggest moving quickly on this as I would expect the judging positions will fill up soon.

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Requirements to Standard 90.1 Proposed; Open for Public Comment

ATLANTA – Changes to the purpose and scope of ASHRAE/IESNA Standard 90.1 as well as new lighting requirements are being proposed through public review.

ANSI/ASHRAE/IESNA Standard 90.1-2007, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, provides minimum requirements for the energy-efficient design of buildings except low-rise residential buildings.

Among the proposed addenda out for public review is addendum *aq*, which proposes changes to the purpose and scope of the standard. The proposed modification addresses applications not covered in the existing standard scope, such as requirements for laboratories, data center cooling and kitchen exhausts. It would also permit the 90.1 committee to address technologies, such as computer equipment and refrigerated casework, and would extend existing requirements for envelope, space cooling and lighting to a larger group of spaces where energy is consumed.

“ASHRAE is committed to substantially reducing energy use in buildings,” Mark Hydeman, vice chair of the committee, said. “This addendum is a critical step toward achieving that goal. For example, it requires all cooling and heating equipment that operates under standard conditions to comply with the existing minimum efficiencies of the standard regardless of the facility that they are in. Manufacturing and process environments often operate at much longer hours than office buildings and retail facilities, which served as the basis for the life-cycle cost analysis of the minimum efficiencies.”

Standard 90.1 currently addresses design and construction of buildings. The proposed addendum would add operation and maintenance, which allows incorporation of industry standards such as ASHRAE/ACCA Standard 180-2008, *Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems*.

The addendum also incorporates utilization of on-site, renewable energy resources.

“By including on-site and renewable energy resources in the scope, an appropriate mechanism was created for future requirements as well as credits for these energy resources not currently provided in the standard,” Hydeman said.

Proposed addendum *aq* is open for public review until Feb. 2.

Four other proposed addenda – *ar*, *as*, *au* and *av* – are open for review until Jan. 19, while a fifth addenda, *at*, is open until Jan. 4.

Proposed addenda *ar* and *av* are related to lighting efficiencies. Proposed addendum *ar* revises an earlier version of the standard where expanded exterior lighting power limits were put in place but details were not included on calculating installed power and its comparison to the limits. Addendum *av* would require that in all spaces where alterations take place, all requirements of section 9 are met, not just the lighting power density requirements.

The proposed addenda to ASHRAE/IESNA Standard 90.1 are available during their public review period. To read the addenda or to comment, visit www.ashrae.org/publicreviews.

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.

Consortium to Advise DOE on High-Performance Green Building Issues

ASHRAE leads formation

ATLANTA –The American Society of Heating, Refrigerating and Air-Conditioning Engineers, along with nine other leading organizations, is forming a consortium in response to the U.S. Department of Energy request for consortia to advise the department on high-performance building issues. The High-Performance Commercial Green Building Partnership (HPCGBP) brings together leading organizations from all aspects of the building community to provide guidance and technical leadership on key sustainability issues to the Department of Energy’s Building Technologies Program.

“This partnership will ensure that the voices of the building industry are being heard,” says Bill Harrison, ASHRAE president. “At a time when reducing energy consumption in buildings is paramount, the consortium gives leaders in the built environment and in those industries affecting construction a clear path to offer advice to the DOE on our goals, concerns and new technologies.”

The American Society of Heating, Refrigerating and Air-Conditioning Engineers initiated formation of the Partnership and will serve as the Partnership’s Secretariat. Other members of the HPCGBP’s steering committee currently includes the Air-Conditioning, Heating and Refrigeration Institute (AHRI), American Institute of Architects (AIA), Alliance to Save Energy (ASE), Building Owners and Managers Association (BOMA), International Code Council (ICC), Illuminating Engineering Society of North America (IESNA), National Association of State Energy Officials (NASEO), National Electrical Manufacturers Association (NEMA) and the U.S. Green Building Council (USGBC).

The partnership intends to be recognized as a “Partnership Consortium” by the Department of Energy as requested in response to the Energy Independence and Security Act of 2007 Section 421. Section 421 is part of the formation of the Net-Zero Commercial Building Initiative which is intended to develop a research, development, and deployment strategy toward achieving net zero energy commercial buildings.

Partnership participants reflect all disciplines necessary to design and build high-performance commercial buildings, including:

- architects and engineers
- the development, construction, financial, and real estate industries
- building owners and operators
- academic and research organizations
- building code agencies and organizations
- independent high-performance green building associations or councils
- experts in indoor air quality and environmental factors
- experts in intelligent buildings and integrated building information systems;
- utility energy efficiency programs;
- manufacturers and providers of equipment
- public transportation industry experts
- nongovernmental energy efficiency organizations

For more information, please visit www.hpcgbbp.org or contact Doug Read in ASHRAE's Washington Office at dread@ashrae.org or 202-833-1830. For **media inquiries**, please contact Wendy Angel at wangel@ashrae.org.

Standard 90.1-2004 Established as National Reference Standard by DOE

ATLANTA – States must now certify that their building codes meet the requirements in ASHRAE/IESNA's 2004 energy efficiency standard, under a ruling issued by the United States Department of Energy (DOE) that finds the standard saves more energy than an earlier version.

ANSI/ASHRAE/IESNA Standard 90.1-2004, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, has been established by the DOE as the commercial building reference standard for state building energy codes under the federal Energy Policy Act.

The Act requires all states to certify that they have state energy codes in place that are at least as stringent as 90.1-2004, or justify why they cannot comply. The DOE determined that Standard 90.1-2004 saves more energy than Standard 90.1-1999, which was the previously referenced standard in the Act.

"The quantitative analysis of the energy consumption of buildings built to Standard 90.1-2004, as compared with buildings built to Standard 90.1-1999, indicates national source energy savings of approximately 13.9 percent of commercial building energy consumption. Site energy savings are estimated to be approximately 11.9 percent," according to the ruling published in *The Federal Register* on Dec. 30, 2008.

"ASHRAE is committed to continually improving building energy performance, so we are pleased with this recognition that the 2004 standard saves more energy," ASHRAE President Bill Harrison said. "ASHRAE is currently working on the 2010 version of Standard 90.1 with a goal of achieving 30 percent energy savings compared to 90.1-2004 as part of our target to achieve market-viable net-zero-energy buildings by 2015."

"The Illuminating Engineering Society is pleased to receive the DOE's positive determination on the site and source energy savings achieved by ANSI/ASHRAE/IES Standard 90.1-2004 compared to the 1999 standard," said Rita Harrold, IES director of technology. She also expressed the Society's appreciation for the contributions of the committee members responsible for developing the standard, which help further the goals of the sponsoring organizations, and for the diligence of the DOE in conducting the determination.

The DOE noted that the newer version of the standard contained 13 positive impacts on energy efficiency. These impacts included changes made through the public review process in which users of the standard comment and offer guidance on proposed requirements to the standard.

The positive impacts include:

- Removed explicit allowance for supply air into non-occupied isolation areas.
- Limitations of the use of dampers in closed circuit cooling towers in place of water bypass valves and piping.
- Additions of insulation requirements for buried ductwork.
- Mapping of envelope requirements to new climate zones, which led to increased stringency of envelope requirements.
- Mapping of economizer requirements to new climate zones, which led to greater geographic expansion of economizer requirements.
- Addition of requirements for ventilation fan controls.
- Lowered size range for part-load fan power limitation.
- Addition of requirements for heat pump pool heaters.
- Complete replacement of interior lighting power density allowances.
- Revised exterior lighting power density allowances.

- Addition of occupancy sensor requirements for classrooms, meeting, and lunch rooms.
- Lower retail sales lighting power allowance.
- New exit sign wattage requirement.

In addition, ASHRAE is working on providing more stringent energy guidance in a proposed standard for high-performance buildings. Being developed in partnership with IESNA and the U.S. Green Building Council, Standard 189.1, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, will provide minimum requirements for the design of high-performance new commercial buildings and major renovation projects, addressing energy efficiency, a building's impact on the atmosphere, sustainable sites, water use efficiency, materials and resources, and indoor environmental quality.

Since being developed in response to the energy crisis in the 1970s, Standard 90.1 now influences building designs worldwide. It has become the basis for building codes, and the standard for building design and construction throughout the United States. ASHRAE publishes a revised version of the standard every three years. The 2007 version of Standard 90.1 was released last year.

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2008-2009 Officers/Board of Governors

<i>President:</i>	<i>Andrew Price</i>
<i>Vice President:</i>	<i>Patrick Igou</i>
<i>Treasurer:</i>	<i>Simon Possin</i>
<i>Secretary:</i>	<i>Jake Vorac</i>
<i>Past President</i>	<i>Jim Nonnenman</i>
<i>Member at Large:</i>	<i>Erick Granzow</i>
<i>Member at Large:</i>	<i>Brian Hodgkin</i>

2006-2007 Committee Chairs

<i>CRC Delegate:</i>	<i>Patrick Igou</i>
<i>CRC Alternate:</i>	<i>Simon Possin</i>
<i>Historian:</i>	<i>Sherm Sweeney</i>
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<i>Seminar:</i>	<i>Bruce Davis</i>
<i>Student Activities:</i>	<i>Alyssa Price</i>
<i>CTTC:</i>	<i>Jon Bovenkamp</i>
<i>Webmaster:</i>	<i>John Schaub</i>

Check-out the Updated Chapter Website at:

www.mississippivalleyashrae.org



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